



The Auditor's Opinion in the Health Sector

Evidence from Portuguese public hospitals

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Abstract: Audit reports contain important information for decision-making, particularly in entities that use public resources, such as hospitals. The public health sector plays a significant role in the Portuguese economy, since 14% of its government's budget is allocated to the expenditure in that sector. This study aims to identify and characterize the qualifications and emphasis presented in the audit reports of Portuguese public hospitals (EPE hospitals) from 2018 to 2021. The definition of the sample and the data collection were supported by the SABI and ORBIS databases and the EPE hospitals' annual and audit reports. The results evidence that the auditor's opinion is qualified in most of the audit reports of EPE, which means it contains qualifications and/or emphasis. The dominant qualifications are associated with asset and investment items, while the main emphasis is related to equity, highlighting the uncertainties in economic and budgetary conditions related to COVID-19. Auditors of Big 4 firms did not sign any audit reports and only six percent were signed by women. This study offers theoretical and practical contributions. It expands knowledge on the auditor's qualified opinion in public hospitals, addressing a gap in the literature. Analyzing typical qualifications and emphases in audit reports identifies patterns for future studies and the most sensitive and risky areas to be considered by auditors. The results also contribute to managers and regulatory bodies improving the transparency and accountability of public hospitals, through a more efficient allocation of resources and the implementation of better internal control systems in public hospitals.

Keywords: Audit report; qualified opinion; hospitals; health sector; public sector.

1 Introduction

The audit consists of a complex process, concluding in the auditor's opinion expressed in the reports. This opinion is so important that it can devise economic consequences for corporations (Habib, 2013; Ireland, 2003; Karjalainen et al., 2018). Auditing thus plays a preponderant role in the transparency and reliability of entities' financial information to allow adequate stakeholder decision-making.

Healthcare services are becoming increasingly important in people's daily lives, requiring the complex management of financial and human resources with a strong emphasis on control and transparency. This is particularly important in preparing and disclosing financial information, including audit reports.

The healthcare sector is expanding and plays a significant role in the Portuguese economy. Data from INE¹ indicate that, in 2023, current healthcare costs grew by 4.7%, accounting for over 9.6% of Portugal's gross domestic product (GDP) due to a rise in hospital activity, and almost 14% of the Portuguese government's budget is allocated to the expenditure health public sector. Furthermore, the COVID-19 pandemic has increased expenditures and contributed to a rise in debt within the healthcare sector.

There are some studies on the auditor's qualified opinion, both at the international and Portuguese level, in the public sector, namely, education (*e.g.*, Carrera & Mareque, 2023; Carvalho, 2021) and local authorities (*e.g.*, Godinho, 2019; Paananen, 2016; Paananen et al., 2021). However, there is a shortage of studies on the auditor's opinion in the health sector. Furthermore, these studies focus on the determinants of the auditor's qualified opinion (*e.g.*, Simões & Carvalho, 2024), with research that identify and categorize qualifications and emphasis in audit reports being almost non-existent. In this context, the study of the auditor's qualified opinion in the health sector is justified, following Costa's (2018) recommendation.

This study aims to identify and characterize the qualifications and emphasis presented in the audit reports of Portuguese EPE hospitals from 2018 to 2021. Therefore, six research questions were formulated: four related to the audit reports, specifically, the evolution of the number of qualifications and emphasis, the type of opinion expressed in the audit reports, and the most frequent qualifications and emphasis; and two related to the auditor's characteristics, specifically, the type and gender of the auditor. The interest in the information in the audit reports, precisely the qualifications and emphasis on Portuguese public hospitals, justifies these questions.

Data were collected from the SABI and ORBIS databases and manually from the hospital's annual reports of the EPE hospitals to analyze the qualifications and emphasis included in the 110 audit reports, from 2018 to 2021. The qualitative methodology was

¹ Data from INE – (Statistics Portugal)

https://www.novasbe.unl.pt/Portals/0/Files/Social%20Equity%20Initiative/05_Orcamento_do_Estado_Saude_2024_Observatorio_da_Despesa_em_Saude.pdf. (accessed on February 21st, 2025)

carried out in 2023 by the content analysis of the audit reports. A list of qualifications and emphasis was drawn on audit reports of the EPE hospitals: the qualifications were grouped into 18 types, and the emphasis were classified into 15 types. The data were organized and analyzed by constructing absolute and relative frequency tables and graphs. The study results show evidence that the auditor's opinion is qualified in most of the audit reports of EPE, which means it contains qualifications and/or emphasis. The dominant qualifications are associated with asset and investment items, while the main emphasis is related to equity, highlighting the uncertainties in economic and budgetary conditions related to COVID-19. Auditors of Big 4 firms did not sign any audit reports in the sample. The results also show that only six percent of the audit reports were signed by women.

The main limitation of this study is the lack of information in the hospitals' databases and websites, which limited the study period and the number of available audit reports. Another limitation is the subjectivity associated with analyzing and classifying qualifications and emphasis. Notwithstanding these limitations, this study contributes to the previous literature about the auditor's opinion, which has been focused on the determinants of qualified opinion. This study provides a detailed analysis of the most frequent qualifications and emphasis in public hospital audit reports, allowing the identification of patterns that can serve as a basis for future research. The results also provide significant evidence for the managers of public hospitals, auditing firms, and government institutions. Contributes to improving the transparency and accountability of public hospitals by highlighting recurring weaknesses in their financial statements. Identifying the most common qualifications and emphasis allows the detection of the most sensitive and risky areas to be taken into account by auditors. Finally, the study's results offer empirical evidence that can support the formulation of public policies, facilitating the more efficient allocation of resources and the implementation of more effective internal control systems in public hospitals.

The work is organized as follows: after this first section of the introduction, the second presents the literature review. The third section presents the empirical study, including the research questions, sample, data collection, and results. The fourth section presents the study's conclusions and future research clues.

2 Literature review

2.1. Regulatory framework in the Portuguese public sector

The public sector comprises public organizations and institutions that produce goods and services to satisfy the community's needs, either fully or partially, free of charge. However, it also includes producing goods and services that compete with those provided by the private sector (Conselho das Finanças Públicas, 2022).

The public sector is divided into two main subsectors in Portugal: i) the Administrative Public Sector (APS) and ii) the State Business Sector (SBS). The APS consists of entities from central, local, and regional administration, social security, and autonomous

funds and operates in an administrative management capacity, including ministries, courts, security and defence, infrastructure, and services that meet essential public interests, such as health and education. The SBS is characterized by following a business model, consisting of companies whose capital is owned by the State, which include Public Business Entities (*Entidades Públicas Empresariais (EPE)* in Portuguese), defined as public legal entities of a business nature endowed with administrative, financial, and patrimonial autonomy, according to the legal regime of the public business sector (no. 1 of Article 18 of Decree-Law No. 18/2017 that regulates the legal framework and rules applicable to healthcare units of the National Health Service).

As the EPEs are public institutions with business characteristics, they must provide annual financial statements as of December 31 each year. By Article 97 of Decree-Law no. 52/2022 that approves the statute of the National Health Service, they must present the following documents: a) Management report and financial statements; b) Audit report; c) Report and opinion of the supervisory board; and d) Corporate governance report.

Public sector entities are subject to two audits: the Portuguese Court of Auditors audit and the external audit conducted by a Statutory Auditor (*Revisor Oficial de Contas (ROC)* in Portuguese), focusing this study on the latter. Considering that this sector has specific accountability characteristics, the International Organization of Supreme Audit Institutions (INTOSAI) states that the environment of the audit is one in which the government and other public entities are responsible for using resources obtained through taxes or other sources to provide services to citizens. These entities must be accountable for their performance and management (ISSAI 100, §17) (INTOSAI, 2019).

According to the Portuguese Court of Auditors (Tribunal de Contas, 2016), the audits aim to provide citizens and other stakeholders with "*independent, objective and rigorous conclusions*" regarding "*the administration and implementation of government policies, programs or actions*" of public entities (§48) while also monitoring the recommendations made and their compliance (§49).

By article 10 of Decree-Law no. 192/2015, of September 11, that approves the Accounting Standardization System for Public Administrations (*Sistema de Normalização Contabilística para as Administrações Públicas (SNC-AP)* in Portuguese), public entities' financial and budgetary statements are subject to audit reports, in which the auditor expresses an opinion on a set of financial statements that includes a balance sheet, an income statement by nature, a statement of changes in equity, a cash flow statement, and the notes to the financial statements (§14 of the Public Accounting Standard (*Norma de Contabilidade Pública (NCP)* in Portuguese) No. 1 - *Structure and Content of Financial Statements*).

Thus, the public sector audit is characterized by verifying historical financial information and gathering sufficient and appropriate evidence regarding the budgetary statements. Therefore, in addition to the audit report on the financial statements, the auditor must issue an opinion on the budget statements. The specific requirements for the audit reports of the budget statements and reporting models are outlined in the Technical

Application Guide (*Guia de Aplicação Técnica (GAT)* in Portuguese) No. 18 – *Entities that Apply the SNC-AP*.

2.2. Audit opinion in the public sector: Empirical studies

According to previous research (Costa et al., 2013; Moalla, 2017; Sérgio, 2021), qualified opinion is expressed when there are emphasis and/or qualifications due to disagreement or limitation of scope. Ireland (2003), Jesus et al. (2022), Karjalainen et al. (2018), and Paananen (2016) consider qualified opinion when there are qualifications (due to disagreement or limitation of scope), a disclaimer of opinion or an adverse opinion, and a modified opinion when there is the inclusion of an emphasis. Ireland (2003) considers modified opinion one with qualifications and material uncertainty related to going concern.

In other studies, related to the public sector, the opinion is also considered modified when the audit report includes an auditor statement about the non-approval of the financial statements or situations where members of the management body responsible for accountability cannot be relieved of their responsibilities (Paananen et al., 2021). Considering ISA 705 and ISA 706, the modified opinion includes situations that give rise to a qualified opinion, the auditor's information about uncertainties related to the going concern, and disclaimers from opinions.

Given the above, it can be concluded that there is no consensus regarding the concept and delimitation of the scope of qualified and modified opinion. In the present study, the expression "qualified" will refer to opinions with qualification and/or emphasis, following the concept used in previous studies (e.g., Costa, 2018; Carrera & Mareque, 2023; Moalla, 2017).

The following presents an analysis of studies about the auditor's qualified opinion in public sector entities, specifically in education, municipalities, and health.

In the education subsector, Carvalho (2021) studied the factors that motivate the modified opinion of the auditor in the Portuguese Polytechnic Institutes in the period 2018 and 2019 through the analysis of audit reports. It concluded that more than half of the opinions issued in audit reports are modified (qualified opinion, adverse opinion, or disclaimer of opinion), and the majority of these contain qualifications due to scope limitation since the auditor cannot issue an opinion regarding the financial statements. The study also recorded a considerable increase in emphasis in 2019 due to possible impacts related to the COVID-19 pandemic.

Recently, Carrera and Mareque (2023) presented another type of evidence related to gender differences in public sector audits through a study carried out on 376 audit reports from Spanish public universities from 2010 to 2020. The authors conclude that female auditors are more conservative and likely to issue qualified opinions and disclose scope limitations. Male auditors tend to be more confident and predisposed to accept uncertainty. This study corroborates the results of Karjalainen et al. (2018), especially when it comes to audits after changing auditors.

Regarding the municipality's subsector, Paananen (2016) carried out a study to identify the determinants of modified audit opinion in municipalities in Finland in 2011. The results reveal that financial performance has no impact on the modified opinion of the auditor since municipalities do not prioritize making a profit. Paananen (2016) also concludes that the number of days from December 31st until the report date increases the probability of issuing a modified opinion. This delay can contribute to a better understanding of situations of uncertainty about going concern and is, in turn, related to the need for more time to discuss with management bodies the reasons that led to the change of opinion to carry out the audit with higher quality. The variables of size of the municipality and audit firm (Big 4), debt, and gender of the principal auditor increase the probability of modified audit reports being issued.

Another study (Paananen et al., 2021), also for Finnish municipalities, in the period between 2009 and 2013, expands the previous research through the analysis of variables related to economic performance and political factors, such as the decentralization of decision-making between the different bodies of the municipalities and political competition between Finland's city councils. The authors observed that a third of the audit reports had modifications in the period under analysis, which raises doubts about municipal management in Finland. Paananen et al. (2021) found evidence that low economic performance and the significant decentralization of decision-making between different bodies increase the likelihood of modifications to the audit report. On the other hand, the less competition between political parties, the less likely there will be modifications to the audit report. Paananen et al. (2021) also show evidence that the variables related to the gender of the auditor, the size of the audited municipality, the type of auditor (Big 4), the number of days between December 31st and the date of the audit report, are factors that positively influence the auditor's opinion in the public sector. This study corroborates the results of Carrera and Mareque (2023) and Paananen (2016).

Godinho (2019) stands out in the Portuguese literature, analyzing the determinants of the modified audit opinion in Portuguese municipalities from 2015 to 2016. The conclusions indicate that the size of the audited company, the debt, the type of auditing company, and the auditor's opinion in the previous year significantly influence the opinion in the current year. In the case of size, the influence is negative; that is, the larger the size of the audited company, the lower the probability of issuing a modified opinion. In turn, the debt has a positive influence, which means that the higher this indicator, the greater the probability of the auditor issuing a modified opinion, similar to the conclusions of Jesus et al. (2022), Lopes (2021), and Paananen (2016).

Also, at the level of municipalities, Rocha (2019) analyzed the determinants of the modification of the ROC's opinion in 30 audit reports from 21 Portuguese inter-municipal communities from 2014 to 2018. The author concluded that more than 50% of the audit reports contain an unmodified opinion, with only 10% of audit reports being modified with qualifications. These refer to situations related to tangible fixed assets, investment grants, and non-comparable accounts. There are a few emphasis, the most frequent being investment grants.

Another study carried out in the Portuguese context is that of Lopes (2021) on the audit reports of medium-sized Portuguese municipalities from 2016 to 2018, in which it was observed that there are financial variables directly linked to the municipality that influence the auditor's modified opinion. The conclusions concerning financial variables indicate that debt does not affect the modified opinion, unlike liquidity and net income for the period, which significantly impact the auditor's opinion. These results differ from those found in other studies carried out in the public sector (Jesus et al., 2022; Paananen, 2016; Paananen et al., 2021). Regarding variables related to the municipality, more specifically political orientation and location, Lopes (2021) found that, in the case of the political issue, the municipalities with the highest probability of a modified opinion are those led by right-wing parties. The location was not considered a determinant of the auditor's qualified opinion, similar to the conclusions of Godinho (2019). Lopes (2021) also collected evidence that the opinion modified in previous years significantly and positively influences the auditor's opinion in the current year.

Still in Portugal, Jesus et al. (2022) analyzed the factors determining the auditor's opinion in municipalities from 2014 to 2016. The research provides evidence that the characteristics of the municipality and the auditor and political factors influence the auditor's opinion. Regarding the characteristics of the municipality and highlighting the financial indicators, debt is what most influences the auditor's opinion, similar to the results of Moalla (2017). Other financial indicators, such as liquidity, degree of leverage, and profitability, do not significantly influence the auditor's opinion, a situation that may be since the purpose of the public sector is to satisfy the population's needs, not its financial performance. Regarding the type of audit company, it was considered more appropriate to measure this variable considering the ten largest audit firms in the sample (Big 10) since only one municipality was audited by a Big 4, concluding that being audited by a Big 10 reinforces the probability of issuing a qualified opinion (Jesus et al., 2022). Similar to Paananen (2016), Jesus et al. (2022) also used the time variable, which corresponds to the number of days that elapsed between the date of issue of the financial statements and the audit report, having concluded that the delay in the audit report influences the auditor's qualified opinion. In the political context, contrary to expectations, these authors found evidence that when the executive and deliberative bodies are from different political parties, there is no increase in qualified opinions.

Another study related to the public sector was conducted by Langella et al. (2021), who investigated the characteristics required of auditors and their importance for audit quality in the healthcare subsector. The characteristics analyzed were independence, accounting and financial experience, and specialization in the sector. The study analyzed around 200 Italian public health organizations and referred to 2016 and 2017. The results suggest that independence is not significant for the quality of the audit; however, professional experience and specialization in the sector, in this case, healthcare, positively influence audit quality.

In the Portuguese context, Costa (2018) analyzed the qualifications and emphasis of the audit reports issued by the auditor in Portuguese EPE hospitals from 2009 to 2014. It

was concluded that the majority (98%) of the audit reports are qualified; that is, they contain qualifications and/or emphasis. Of the most frequent reserves, situations related to third-party accounts, pensions, and investments stand out, particularly assets not registered in the name of the respective entities. Regarding the emphasis, those referring to negative equity, lack of insurance coverage, lack of validation of billing values, and assets not registered in the entity's name stand out. More recently, Simões and Carvalho (2024) studied the hospitals in the private sector from 2019 to 2021 and concluded that the determinants of a qualified opinion are the financial indicators related to debt and performance and the qualified opinion from the previous year.

3 Empirical study

3.1. Research questions

Analyzing the audit reports of EPE hospitals from 2018 to 2021, it was possible to verify that most of the auditor's opinions are qualified (with qualification and/or emphasis). This leads us to follow Costa's (2018) recommendation to analyze the qualifications and emphasis of public hospitals. Adapting its methodology, a qualitative analysis was carried out by observing the content of the audit reports, namely the respective qualifications and emphasis of the EPE hospitals, allowing for updates and comparisons with the results of that previous study.

The main objective of this study is to identify and characterize the qualifications and emphasis presented in the audit reports of EPE hospitals from 2018 to 2021. The classification was carried out by type of report: clean audit reports (ARC); audit reports without qualifications and with emphasis (ARE); audit reports with qualifications and without emphasis (ARQ); and audit reports with qualifications and emphasis (ARQE).

The following research questions were formulated:

1. *What is the evolution of the number of qualifications and emphasis in the audit reports of EPE hospitals?*
2. *What type of report is expressed in the audit reports of EPE hospitals?*
3. *What are the most frequent qualifications in the audit reports of EPE hospitals?*
4. *What are the most frequent emphasis in the audit reports of EPE hospitals?*
5. *What is the most frequent type of auditor in the audit reports of EPE hospitals?*
6. *What is the most frequent auditor gender in audit reports of the EPE hospitals?*

3.2. Sample and data

The sample of this study is based on the audit report from 2018 to 2021 of the Portuguese EPE hospitals, having as support for data collection the ORBIS and SABI databases, as well as the websites of the hospitals themselves for which the information in those databases is omitted.

The criteria used to define the sample were active Portuguese hospitals with the designation EPE and activity code "human health." The application of these criteria resulted in a total of 44 EPE hospitals. In the universe of the initial sample of 176 audit reports (Table 1), a high number of the audit reports and/or financial statements are either not published or are awaiting approval, or the EPEs do not have an appointed auditor or were not EPE in the period under research. Thus, a manual data search was conducted on the entities' websites for unavailable audit reports and/or financial statements. After this collection, some data necessary for the study were still missing, including qualified opinion, the name of the auditor or the auditor's firm, total assets, and net income for the period. To obtain the missing data, emails were sent to the respective hospitals, from which we obtained a small number of responses.

After that, the final sample of this study consists of 110 audit reports from the EPE hospitals from 2018 to 2021. Table 1 presents the detailed sample definition.

Table 1. Sample definition by years

Year	2018	2019	2020	2021	Total
Initial universe	44	44	44	44	176
Not EPE	-2	0	0	0	-2
Not accounts approved	-2	-2	-2	-5	-11
Not audit appointed	-1	-2	-2	-2	-7
Audit report not available	-14	-13	-9	-10	-46
Number of audit reports analysed	25	27	31	27	110

The content of the 110 audit reports of the EPE hospitals in the sample allows us to carry out different types of analysis, basing the treatment of the data and the results discussed on descriptive analyses through the elaboration of absolute and relative frequency tables, complemented with graphs.

Table 2 presents the descriptive statistics of some financial indicators of EPE hospitals for 2018 to 2021: the total assets, the net income for the period, the debt (ratio between total liabilities and assets) and the number of employees.

Table 2. Descriptive statistics of financial indicators of the sample

Financial indicators	Minimum	Maximum	Average	Standard deviation
Total assets	9 790,10	361 134,93	107 714,22	70 401,46
Net income	-83 138,25	4 511,96	-18 791,09	16 879,77
Debt	0,2551	2,9354	1,1734	0,5712
No. employees	495	8 601	2 669	1 829,88

Note: The values presented for the DIM and the RLP are in thousands of euros.

Regarding the total assets, the EPE hospitals have an average value of 107 714 thousand euros and a high standard deviation of 70 401, with the extreme values (minimum and maximum) being very distant, which reflects a high heterogeneity in the size of the

hospitals of the sample. The net income has a minimum negative value of 83 138 and a maximum value of 4 512 thousand euros, with a negative average of 18 791 thousand euros, which means that most EPE hospitals have negative net income. Only three EPEs report positive net income for the period, specifically the EPE of the Autonomous Region of Madeira in 2018 (Serviço de Saúde da Região Autónoma da Madeira) and of the Autonomous Region of the Azores in 2021 (Hospital Divino Espírito Santo de Ponta Delgada and Hospital de Santo Espírito da Ilha Terceira). This situation can be explained by the fact that the activity of these institutions does not have profit as its primary objective but rather the satisfaction of the population's needs, specifically in terms of health. Another indicator is the debt, that shows a minimum value of 0,2551 and a maximum of 2,9354, a reduced standard deviation of 0,5712. However, it is observed that the average is 1,1734, which reveals a high debt in EPE hospitals. Finally, the number of employees, is proportional with the size of the hospitals, presenting an average of 2 669 and a standard deviation of 1 830, which reflects some heterogeneity in the number of human resources.

Considering the Portuguese regions North, South, Center, and Islands (Madeira and Açores), the geographical localization shows that the sample covers the North and South of Portugal, with more than 30% in each region and Islands are very similar to the Center region of Portugal, as Table 3 presents.

Table 3. Geographical distribution of the sample

Region	No. reports	% reports
North	42	38%
South	34	31%
Center	18	16%
Islands (Madeira and Açores)	16	15%
Total	110	100%

3.3. Results and discussion

3.3.1. *Qualifications and emphasis in audit reports by year*

One hundred and ten audit reports were analyzed from 2018 to 2021, and a total of 554 qualifications and 215 emphasis were identified in this study, which results in an average of five qualifications and two emphasis per report. From the analysis of Figure 1 and answering research question 2, "What is the evolution of the number of qualifications and emphasis in the audit reports of EPE hospitals?" it is verified that the qualifications far exceed the emphasis presented in the audit reports of the EPE hospitals. In the total universe of 769 observations, 72% are qualifications, and 28% are emphasis.

Analyzing the annual evolution of the number of qualifications and emphasis (Figure 2), it is observed that 2020 is the year in which the most qualifications were issued. This situation is related to the fact that this year, there has been an increase in the number of audit reports analyzed, as mentioned above.

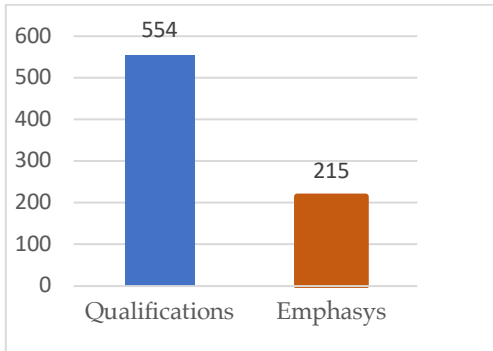


Figure 1. Frequency of qualifications and emphasis of EPE hospitals

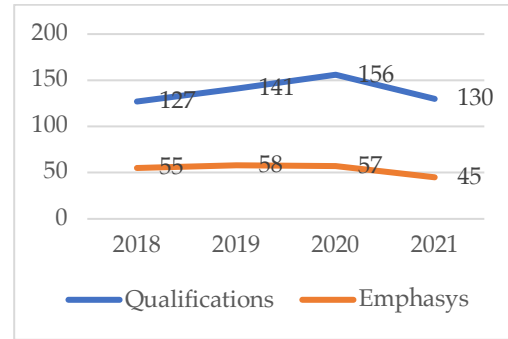


Figure 2. Qualifications and emphasis per year in the audit reports of EPE hospitals

3.3.2. Types of opinion in audit reports

In this section, the opinion expressed in the EPE hospitals' audit reports is analyzed to answer the third research question, "What type of opinion is expressed in the audit reports of the EPE hospitals?".

From the analysis of the audit reports, the opinion issued by the auditor was classified into four types (Figure 3): audit reports with qualifications and emphasis (ARQE), audit reports with qualifications and without emphasis (ARQ); audit reports without qualifications and only with emphasis (ARE); and clean audit reports (ARC).

Thus, of the 110 audit reports analyzed, 85 contain qualifications and emphasis (ARQE), representing 77% of the sample. On the other hand, 22 audit reports (20%) have qualifications but no emphasis (ARQ), and two audit reports contain only emphasis (ARE). Finally, of the sample of 110 audit reports, only one audit report is clean (ARC), specifically from the Braga Hospital, for 2021. Therefore, the ARQE type predominates in the period under research.

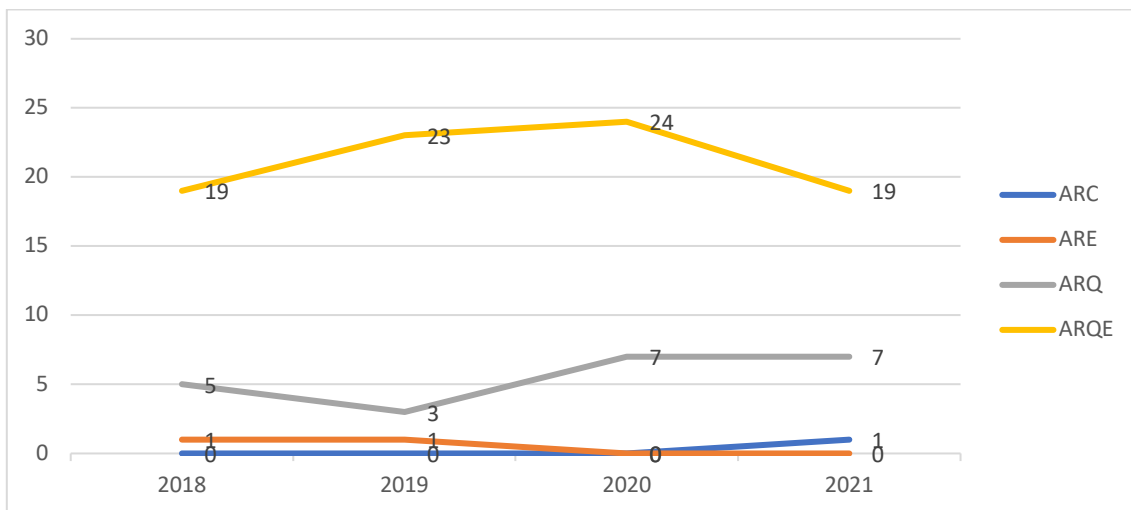


Figure 3. Types of opinion issued in the audit reports of EPE hospitals

3.3.3. Most frequent qualifications in the audit reports of EPE hospitals

Regarding the qualifications presented in the 110 audit reports of the EPE hospitals, there were 554 observations in the four years of the sample. The qualifications were grouped into 18 types, with the classification from Q1 to Q18, having risen to 127 in 2018, 141 in 2019, 156 in 2020, and 130 in 2021, as shown in Table 4.

Table 4. Classification of the qualifications in the audit reports of EPE Hospitals

Qualifications	2018	2019	2020	2021	Total	%
Q1 - Impossibility of concluding on the recoverability of amounts under the headings of "customers, taxpayers and users" and "other debtors for accruals of income"	17	21	24	19	81	15%
Q2 - Uncertainty in the recognition of revenues (financing obtained through program contracts signed with the Portuguese State)	17	18	22	19	76	14%
Q3 - Limitation in the validation of tangible fixed assets and amortizations/depreciations	15	14	16	14	59	11%
Q4 - Used assets not registered in the name of the entity at the Land Registry Office	11	11	11	11	44	8%
Q5 - Lack of responses or non-compliant responses to the request for confirmation of third-party balances	12	10	11	7	40	7%
Q6 - Limitation on the validation of inventories and cost of inventories	7	9	10	8	34	6%
Q7 - Impossibility to conclude on the amount of the item's "suppliers" and "other accounts payable"	8	8	11	7	34	6%
Q8 - Lack of detailed recording of assets	8	9	10	6	33	6%
Q9 - Lack or insufficiency of impairments/provisions to address risks with lawsuits and customer debts	9	8	7	9	33	6%
Q10 - Limitation to the validation of services provided related to the National Health Service (SNS) registered based on estimates included in the item of revenue increases	6	6	7	8	27	5%
Q11 - Lack of information necessary for the correct measurement of personnel expenses (vacations, vacation allowances and hours worked compensated with paid absences - bank of hours)	2	6	8	8	24	4%
Q12 - Existence of litigation proceedings without it being possible to determine the effect of any corrections on the entity's assets	5	6	6	5	22	4%
Q13 - Lack of current studies to quantify past and future responsibilities for the payment of retirement pensions	5	6	6	4	21	4%
Q14 - Impossibility to conclude on the amount of "investment grants"	0	2	3	2	7	1%

Qualifications	2018	2019	2020	2021	Total	%
Q15 - Failure to approve accounts from previous years	2	2	2	1	7	1%
Q16 - Absence of management accounting system (SNC-AP, NCP 27)	3	4	0	0	7	1%
Q17 - Derogation from NCP 2 - Accounting Policies, Changes in Accounting Estimates and Errors	0	1	1	1	3	1%
Q18 - Accounting recognition of financing (recommendation: investment grants and non-provision of services)	0	0	1	1	2	0%
Total Qualifications	127	141	156	130	554	100%

The data in Table 4 and Figure 4 answer research question 4, "What are the most frequent qualifications in the audit reports of EPE hospitals?". Thus, three qualifications stand out as being the most frequent in the audit reports analyzed: Q1 - Impossibility of concluding on the recoverability of amounts in the items of "customers, taxpayers and users" and "other debtors for accruals of income," referred to in 81 audit reports; Q2 - Uncertainty in recognition of revenues (financing obtained through program contracts signed with the Portuguese State), mentioned in 76 audit reports; and Q3 - Limitation on the validation of fixed assets, plant and equipment and amortizations/depreciations, referred to in 59 audit reports. It should also be noted that these last two qualifications (Q2 and Q3) are related to the other two most frequent qualifications, Q4 - Used assets not registered in the name of the entity at the Land Registry Office and Q5 - Lack of responses or non-compliant response to the request for confirmation of third-party balances, referred to in 44 and 40 audit reports.

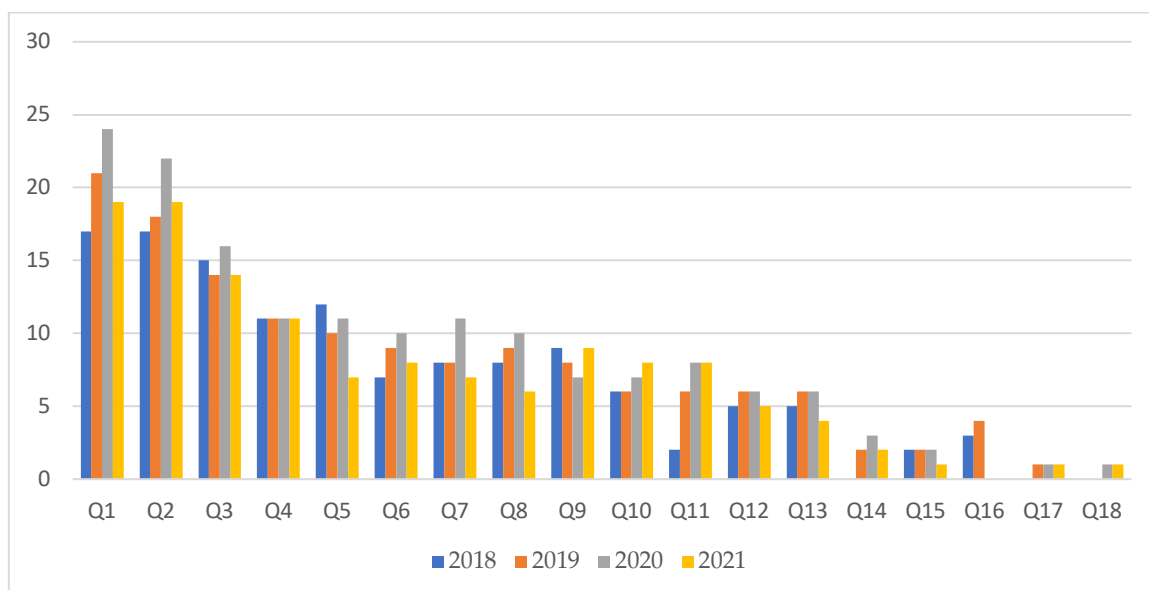


Figure 4. Frequency of the type of qualifications per year of EPE hospitals

It can be concluded that the frequency of qualifications Q1, Q2, Q3, Q4, and Q5 concentrate more than 50% of the total qualifications observed in the sample, and in the universe of 554 observations, qualifications Q1 and Q2 stand out in the years 2020. Thus, the

most frequent qualifications in audit reports are associated with asset items, more specifically accounts receivable and investment accounts, like what Costa (2018) concluded for the health sector in the years 2009 to 2014 and Carvalho (2021) for the education sector in the years 2018 and 2019.

Qualifications associated with accounts receivable refer to user fees for dubious receipts and long-standing debts. Regarding the qualifications related to investment accounts, it is worth noting the difficulty in validating the tangible fixed assets indicated in the land and buildings items, which, being in the public domain, are not registered in the name of the respective EPE hospitals. This situation causes limitations in recognizing the depreciation of those tangible fixed assets.

Regarding the financing obtained through the program contracts signed with the Portuguese State, the recognition of the revenues arising from this financing is based on estimates, with a high degree of uncertainty, since they are complex contracts, with several modifying agreements and very long validation periods. As such, these situations lead to the issuance of a qualified opinion by the auditor, and in this study, these qualifications have a significant weight (14%) on the total qualifications.

3.3.4. *The most frequent emphasis in the audit reports of EPE hospitals*

Relating to the emphasis, after analyzing the 110 audit reports, they were classified and grouped into 15 types (Table 5).

Table 5. Classification of the emphasis in the audit reports of the EPE hospitals

Emphasis	2018	2019	2020	2021	Total	%
E1 - Negative equity and loss of part or all of the equity	10	8	14	12	44	20%
E2 - Economic and budgetary uncertainties related to COVID-19 (considered a pandemic by the World Health Organization in March 2020)	0	18	10	3	31	14%
E3 - Lack of approval of accounts from previous years	6	7	9	8	30	14%
E4 - Reversal of negative equity by capital contributions in cash (coverage of losses carried forward)	4	6	5	7	22	10%
E5 - Information on the determination of the recoverable amount of assets to cover operating costs on a continuing basis, under the assumption of financing by the State	5	5	6	5	21	10%
E6 - Used assets not registered in the name of the entity at the Land Registry Office	4	3	4	3	14	7%
E7 - Non-comparable accounts	7	3	1	1	12	6%
E8 - Property not covered by insurance	4	3	3	1	11	5%
E9 - First-time adoption of the SNC-AP	9	0	0	0	9	4%
E10 - Lack of validation of the amounts relating to invoicing, so that the amounts of the provision of services were treated as "accruals of income"	1	2	2	2	7	3%
E11 - Ongoing legal proceedings that are not provisioned or whose outcome is uncertain	1	2	2	1	6	3%

Emphasis	2018	2019	2020	2021	Total	%
E12 - Resolution of the previous year's qualification	2	1	1	1	5	2%
E13 - Liabilities with pension supplements were not reflected in the accounts	1	0	0	0	1	0%
E14 - Constitution of provisions for doubtful accounts of public entities and/or reinforcement or reduction of existing provisions	0	0	0	1	1	0%
E15 - Accounts not presented in SNC-AP	1	0	0	0	1	0%
Total Emphasis	55	58	57	45	215	100%

The emphasis classification assumes the reference E1 to E15, with 215 observations in the 4 years, divided into 55 in 2018, 58 in 2019, 57 in 2020, and 45 in 2021. Table 5 and Figure 5 analysis allow us to answer research question 5: "What are the most frequent emphasis in the audit reports of EPE hospitals?".

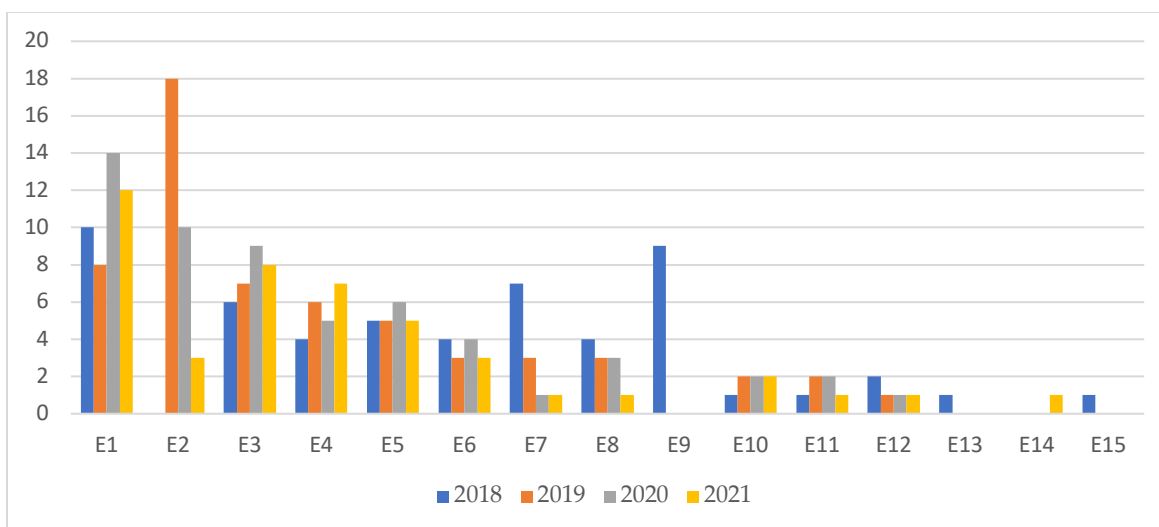


Figure 5. Frequency of the type of emphasis per year of the EPE hospitals

It can be seen that an emphasis stands out for its greater frequency, specifically E1 - Negative equity and loss of part or all of the equity, referred to in 44 audit reports. This situation may be explained by the fact that, as already mentioned, most EPE hospitals present a negative net income for the period. It should be noted that although these entities present negative income, it is mentioned in all audit reports that going concern is not affected since the activity is relevant in the provision of public services in the health sector, depending, however, on the financial funds of the State shareholder.

The other most frequent emphasis is E2 - Economic and budgetary uncertainties related to COVID-19 in 2019 and 2020, and E3 - Lack of approval of accounts for previous years, referred to in audit reports 31 and 30, respectively. Regarding E2, the OROC issued in May 2020 the Technical Guidance "Effects of COVID-19 on auditing", which summarizes the considerations to be taken by auditors in their reports. It appears that the audits treated the COVID-19 pandemic topic as a subsequent event, leading companies to include this

disclosure in their financial statements (Proença, 2021). Thus, many auditors emphasized audit reports to draw users' attention to information about the pandemic's importance in the accounts of companies, particularly those linked to the health sector.

It is also possible to observe that the E2 emphasis (with 18 frequencies) is the one that stands out the most in the total universe of 215 emphasis in 2019, followed by the E1 emphasis (with 14 frequencies) in 2020. This increase in emphasis E2 is also reported by Carvalho (2021) for the sample of Portuguese Polytechnic Institutes for the year 2019.

Through the analysis of qualifications and emphasis, and like Costa (2018), we observed that identical situations are considered by some auditors as qualifications and by other auditors as emphasis due to the different professional judgments of the auditors. In this study, this situation occurs in qualification Q15 and emphasis E3 - Lac of approval of accounts from previous years, as well as in Q4 and E6 - Uses assets not registered in the name of the entity in the Land Registry Office. In the qualification case, this represents only 1% (7 qualifications) of the total qualifications and the emphasis a higher percentage, 14% (30 emphasis).

3.3.5. Type and gender of auditor in the EPE hospitals

It is observed that smaller companies than the Big 4 audited most EPE hospitals. Thus, to analyze the type of auditor in the audit reports of public sector hospitals, we proceeded to the previous classification of the auditing firm in the Big 10 group (Jesus et al., 2022). According to the ORBIS database, this group comprises Portugal's ten largest auditing companies, measured by their respective trade volume in 2021. The audit firms that comprise the Big 10 group are listed in Table 6, in descending order of their turnover.

Table 6. Big 10 audit firms in Portugal

Order	Audit Firms	No. Audit Report
1	KPMG & Associados - SROC, S.A.	0
2	PriceWaterhouseCoopers & Associados – SROC, Lda.	0
3	Ernst & Young Audit & Associados – SROC, S.A.	0
4	Deloitte & Associados - SROC, S.A.	0
5	BDO & Associados - SROC, Lda.	20
6	Mazars & Associados - SROC, S.A.	0
7	Oliveira, Reis & Associados - SROC, Lda.	7
8	Grant Thornton & Associados - SROC, Lda.	10
9	RSM & Associados - SROC, Lda.	0
10	Moore Stephens & Associados - SROC, S.A.	0
Total		37

With these data, it can answer research question 6, "What is the most frequent type of auditor in the audit reports of EPE hospitals?". By analyzing the type of auditor of EPE hospitals, Figure 6 shows that only 34%, that is, 37 audit reports, were issued by auditors

who are part of the Big 10 list. The remaining 66%, corresponding to 73 audit reports, were issued by 11 smaller firms, non-Big 10 companies.

Regarding the gender of the auditor, it can be seen that only seven audit reports were the responsibility of female auditors, representing 6% of the sample, *i.e.*, a small number of audits were carried out by women, as shown in Figure 7. These results align with the study by Silva (2023), which shows that the number of women enrolled in the OROC is very low, and the auditor profession is still dominated primarily by men.

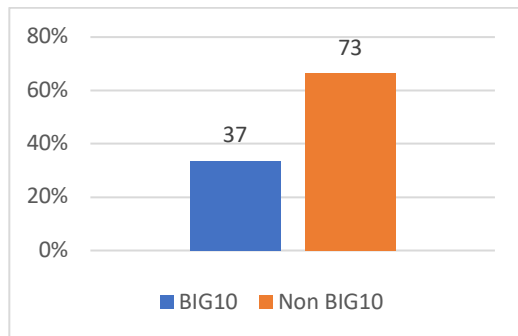


Figure 6. Type of auditor of the EPE Hospitals

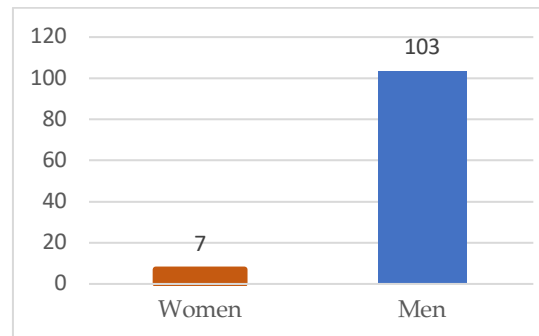


Figure 7. Gender of the auditor of EPE hospitals

Thus, answering research question 7, "What is the gender of the auditor most frequent in audit reports of the EPE hospitals?" the male gender is the most frequent in the audit reports of the EPE hospitals under study.

Finally, it is important to mention that the type of audit firm (Godinho, 2019; Habib, 2013; Ireland, 2003; Jesus et al., 2022; Paananen, 2016) and the auditor's gender (Carrera & Mareque, 2023; Paananen, 2016; Paananen et al., 2021), are factors that impact in the auditor's opinion in the public sector, namely, the probability of obtaining a qualified audit opinion.

4 Conclusions

This study aims to identify and characterize the qualifications and emphasis presented in the audit reports of Portuguese EPE hospitals from 2018 to 2021. Therefore, six research questions were formulated: five related to the audit reports and two related to the auditor's characteristics.

Since most of the audit reports of the EPE hospitals in the years 2018 to 2021 are qualified, the content analysis of the qualifications and emphasis contained in these reports was carried out. The most frequent qualifications and emphasis were identified and classified, with 18 and 15 types, respectively.

The results show a large number of audit reports with qualifications and emphasis, with a small number having only qualifications or emphasis, and only one audit report is clean; that is, it does not contain qualifications or emphasis.

Regarding the qualifications, it is concluded that the most predominant in audit reports are those related to accounts receivable and payable, more precisely, the items of customers, taxpayers, users, and other debtors for accruals of income; the recognition of

revenues from the financing of program contracts; and investments, identifying the difficulty of validating tangible fixed assets and their depreciation.

Concerning emphasis, the most prominent is negative equity and the loss of part or all of the equity. This situation can be explained by most EPE hospitals' negative net income. It should be noted that although these entities have negative equity, the auditors state in the audit reports that going concern is not affected since the activity is relevant in the provision of public services in the health sector, depending, however, on the financial funds of the State shareholder. The other most frequent emphasis is on the economic and budgetary uncertainties related to COVID-19 in 2019 and 2020 and the lack of approval of accounts from previous periods.

It is also verified that auditors of Big 4 companies did not sign any audit reports in the sample. For this reason, the type of auditor was classified in the Big 10, corresponding to the ten largest audit firms in Portugal in 2021, with 66% of audit reports issued by 11 smaller audit firms than the Big 10. The results also show that only 6% of the audit reports in the sample were signed by women.

This study presents relevant theoretical and practical contributions to auditing in the health sector, an area still little explored in scientific literature. At the theoretical level, the research contributes to expanding knowledge about the auditor's qualified opinion in public hospitals (EPE), filling a gap in national and international literature. Most of the studies focus on the determinants of the auditor's qualified opinion, in public administration sectors other than health, without carrying out a prior characterization of the qualifications and emphasis identified in the auditor's report. This study provides a detailed analysis of the most frequent qualifications and emphasis in public hospital audit reports, allowing the identification of patterns that can serve as a basis for future research. In practical terms, this work contributes to improving the transparency and accountability of public hospitals by highlighting recurring weaknesses in their financial statements. The results can serve as a reference for managers and regulatory bodies, encouraging greater supervision and promoting adopting good practices in hospital management. Furthermore, identifying the most common qualifications and emphasis allows, on the one hand, suggesting adjustments to the legislation and accounting standards applicable to the sector and, on the other hand, identifying the most sensitive and risky areas to be taken into account by auditors when planning and carrying out audit tests, to increase the quality of the financial information disclosed. Another relevant contribution is related to the impact of the COVID-19 pandemic on the auditor's opinion, which may guide possible adaptations in audit processes to deal with unexpected events and future crises. Finally, the study's results offer empirical evidence that can support the formulation of public policies, facilitating the more efficient allocation of resources and the implementation of more effective internal control systems in public hospitals.

The main limitation of this study is the lack of information in the hospitals' databases and websites, which limited the study period and the number of available audit reports. To obtain not available reports, several emails were sent, but it was obtaining a small number

of responses. Another limitation refers to the subjectivity associated with the analysis and classification of qualifications and emphasis, which constituted the most laborious, demanding, and complex task of this study despite having been carried out and validated by the two researchers to reduce that subjectivity.

For future research, it is suggested that the sample period of the present study be extended to more years, allowing us to verify whether the trends in the type and nature of qualifications and emphasis identified in this study remain. Or whether some have disappeared because they are related to the COVID-19 period, the effect of which will tend to disappear in more recent years. It would also be important to replicate this study for Portuguese private hospitals, comparing qualifications and emphasis between the public and private sectors in the health area. This aspect could influence the planning and audit work, depending on the health subsector being audited. Finally, it is suggested that the relevant audit matters contained in the audit reports of public hospitals be analyzed.

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