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International Conference on Business and Economics - Hellenic Open University

Vol 1, No 1 (2021)

ICBE-HOU Proceedings 2021

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Georgios Petropoulos, Maria Tsipouridou, Georgia Boskou, Charalambos Spathis

doi: 10.12681/icbe-hou.5308

To cite this article:

Petropoulos, G., Tsipouridou, M., Boskou, G., & Spathis, C. (2023). Disclosure of Important Issues in Audit Reports: First Year of Implementation . *International Conference on Business and Economics - Hellenic Open University*, *1*(1). https://doi.org/10.12681/icbe-hou.5308

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Disclosure of Important Issues in Audit Reports:

First Year of Implementation

Petropoulos Georgios,[1] Tsipouridou Maria,[2] Boskou Georgia,[3] Spathis Charalambos[4]

Abstract

The aim of this study is to explore the new International Standard on Audit (ISA) 701 "*Communicating Key Audit Matters in the Independent Auditor´s Report*". More specifically, we examine Key Audit Matters (KAMs) in the first year of implementation in Greece, in 2017. We content analyze the audit reports to investigate the number and type of KAMs that are identified and disclosed by industry and by type of audit firm (i.e. Big-4, Crowe-Sol, Grant Thornton, and others). We hand-collect data from 153 audit reports of companies listed on the Athens Stock Exchange (ASE). Moreover, an empirical analysis is carried out to examine whether the size of the company being audited, and the type of the audit firm, affect the number of KAMs. Our results show that the number of KAMs is positively related to the size and leverage of the audited company, as well as the tenure of the audit firm.

Key words: Key Audit Matters, ISA 700, ISA 701

JEL Classification: M41, M42, G38

1. Introduction

During the past two decades, various factors have led regulatory authorities around the world to radically change the content of the audit report (FRC, 2013; IAASB, 2012; Vanstraelen et al., 2012). Firstly, it was the global financial crisis that started in the USA in 2007 and the large corporate scandals that led investors to lose confidence in capital markets and to question the credibility of external auditors of financial statements. Secondly, many users of financial statements became aware of a gap between the information they are interested in and the information provided in the audit report. This information gap is an indication of the broader differences between the expectations of users regarding the role of auditors, and the actual responsibilities of auditors. Thirdly, the regulatory

[1] Postgraduate Student, International Hellenic University, Thessaloniki, email: georgepetropoulos76@gmail.com

[2] Assistant Professor, Department of Economics, Aristotle University of Thessaloniki, email: mtsipouridou@econ.auth.gr

[3] Lecturer, Department of Accounting and Information Systems, International Hellenic University, email: boskoug@ihu.gr

[4] Professor, Department of Economics, Aristotle University of Thessaloniki, email: hspathis@econ.auth.gr

authorities realized the increasing need to review and adapt the audit report to render it more pertinent than an opinion that just reflects whether a company´s financial statements are in line with accounting standards (Minutti-Meza, 2020).

Perceiving these developments and the needs of users of financial statements, the International Auditing and Assurance Standard Board (IAASB) proceeded to issue new, but also modify existing, auditing standards. The changes in the International Standards on Auditing (ISA) include, among other things, the introduction of a new paragraph in the audit report that describes Key Audit Matters (KAMs), according to the new ISA 701 *«Communicating Key Audit Matters in the Independent Auditor's Report»* (IAASB, 2015). This study focuses on the new auditing regulations related to KAMs, during the first year of their implementation, 2017, in Greece. We aim to explore the number and type of KAMs reported by industry and audit firm type (i.e. Big-4, Crowe-Sol, Grant Thornton, and others).

To respond to these questions, we conduct a content analysis on 153 audit reports of companies listed on the Athens Stock Exchange (ASE). We find that the Banking sector reports, on average, the highest number of KAMs, while the Real Estate sector the lowest. We also find that Big 4 audit firms report, on average, the most KAMs. The most frequently reported KAM is recoverability of trade receivables, followed by inventory valuation and revenue recognition. Moreover, we perform regression analysis to empirically investigate whether the size of the company that is being audited and the type of the audit firm affect the number of KAMs in the audit reports. Our results indicate that the number of KAMs is positively related with the size and leverage of the audited company, as well as the tenure of the audit firm.

The contribution of the study is summarised below. We provide a detailed review of key audit matters of companies operating in the Greek context. Furthermore, we attempt to identify the factors determining the number and types of KAMs that are reported. The study also provides an empirical investigation of the reported cases. Understanding the factors influencing the number and types of reported KAMs is critical, since both decision-makers and financial markets rely on the information provided in financial statements and audit reports. For auditors, the present study is informative given that it reveals the overall effects of this reform in Greece. Additionally, the study can be of use to regulatory authorities, since it shows the informational value of KAMs. It can also assist them in focusing their regulatory efforts on the higher-risk companies of a given sector.

The structure of the study is as follows. In Section 2 we present the theoretical background, while in Section 3 we perform the content analysis. In Section 4 we present the hypotheses and the model tested, as well as the empirical results. Section 5 concludes the study.

2. Literature review

2.1 Theoretical background

The year 2006 could be considered a milestone in the international development of the auditing profession. It marked the beginning of an international discussion regarding the need to change the audit report for public interest entities. The discussion resulted in a major revision of the audit report in January 2015. This was the result of an international consultation between the professional organizations of accountants-auditors and of the international economic, business, and supervisory bodies. For the International Auditing and Assurance Standards Board (IAASB) and the International Federation of Accountants (IFAC), it constituted a particularly demanding task that was completed gradually in approximately one decade. IFAC proceeded to various changes that include:

1. Significant revisions of audit report-related standards (ISA 700, ISA 705, ISA 706, ISA 710, and ISA 720),
2. The creation of a new standard (ISA 701, "Communicating Key Audit Matters in the Independent Auditor´s Report"), and
3. Revisions of other standards directly or indirectly related to the above (ISA 210, ISA 220, ISA 230, ISA 510, ISA 540, ISA 570, ISA 600).

These changes bring about important amendments to the audit report, resulting in a new structure and content, and apply to fiscal years ending on December 15th, 2016, or later.

2.2 ISA 701

According to the revised ISAs, the audit reports of statutory auditors on the financial statements of public interest entities must include a specific paragraph on KAMs. The goal is to make the audit report more informative, specifically referring to the parts of the audit requiring more careful judgment. The analysis, definitions and the reporting process of KAMs in the audit report are included in ISA 701. More specifically, KAMs are described as matters that, according to the auditor's professional judgment, were of primary importance when auditing the financial statements of the current period. KAMs are selected from matters discussed with those charged with the company's governance. Broadly, they are considered matters that are derived from the financial statements and fulfil the following criteria: i) they are significant matters discussed with the Audit Committee, ii) they are related to Accounts or Notes and are considered essential to the financial statements, iii) they require significant auditor attention and judgment.

The auditor must create a separate section in the audit report under the heading "Key Audit Matters", and describe each matter using the appropriate subheading. The description of each matter

must explain why it was considered of primary importance in the audit and how it was addressed when performing the audit.

2.3 Prior research on KAMS and research questions

Various studies investigate audit reporting in Greece. Boskou et al. (2021) assess the impact of i) internal controls, ii) good corporate governance practices and iii) the level of earnings management, on the type of audit opinion issued by the external auditor. Their result show that internal controls and corporate governance disclosures affect the type of audit opinion the audited company receives. They also find an association between internal controls (and corporate governance disclosures) and the number of issues included in the unmodified opinion with emphasis of matter paragraph. In addition, Caramanis and Spathis (2006) test if financial and non-financial characteristics of a company can be used to predict the type of audit opinion it receives. Using 185 Greek companies, listed at the ASE, they find that audit fees and the type of audit firm do not affect auditor's propensity to issue a modified opinion. Finally, Tsipouridou and Spathis (2014), investigate the relationship between the type of audit opinion and earnings management, measured by discretionary accruals. Their results indicate that audit opinions are not related to earnings management. However, none of these studies examine the benefits, if any, of disclosing KAMs in the audit report, since this is a new regulatory requirement in the Greek setting.

International studies that investigate the disclosure of KAMs, focus on areas such as audit fees, communicative value, capital markets, and auditor's liability. Sierra-Garcia et al. (2019), analyse the influence of auditor and client characteristics on the magnitude and type of KAMs disclosed in audit reports of the FTSE 100 companies in the UK, during the period 2013-2016. Their results show that auditors of companies that pay higher audit fees disclose more entity-level-risk KAMs and fewer account-level-risk KAMs. Their findings also suggest that client characteristics, such as the industry sector in which the client operates, are relevant to the number and type of KAM included in the audit report. Moroney et al. (2021) examine if the inclusion of KAMs in the audit report affects perceptions of investors regarding the value of the audit, as well as the credibility of the auditor. They find that inclusion of KAMs improves perceived credibility and value only when a non-Big 4 conducts the audit. Interestingly, they report that inclusion of KAMs draws investors' attention to new messages and takes their attention away from core issues of the audit report. Coram and Wang (2020) investigate the effect of disclosing KAMs on the audit expectation gap. In an experiment with non-professional financial report users, they find that disclosing KAMs does not affect the expectation gap.

Sirois et al. (2018) examine, using an eye-tracking methodology, if and how the key audit matters affect users' information acquisition process. They find that participants pay more attention to them

when they are communicated in the auditor's report. Finally, in the US, several studies examine the effect of critical audit matters on auditors' liability with mixed findings (Brasel et al., 2016; Kachelmeier, et al., 2020). Interestingly, the PCAOB decided to exclude clarification of technical terms, such as reasonable assurance, from its final standard, while the IAASB made such clarifications mandatory. Backof et al. (2019) investigate the impact of the new standard, and the difference in reporting models between the IAASB and PCAOB, in auditor negligence. They find that when the clarifications are absent, jurors perceive auditors as more negligent when the audit report includes a related critical audit matter disclosure than when it does not. Therefore, they conclude that the PCAOB's decision to not include clarifying language in the new standard may have been short-sighted. Gimbar et al. (2016), use an experiment, in which participants, acting in the role of jurors, evaluate the liability of auditors for an alleged misstatement in the financial statements. They find that the use of critical audit matters in the audit report increases auditor's liability.

Each country's financial market has unique characteristics. We aim to investigate the KAMs in Greece during the first year of implementation in 2017, considering both the characteristics of the auditor and of the audited company. We examine observable differences in the KAMs reported in companies of different sizes within an industry sector or pertaining to different sectors. We address the following research questions:

RQ 1: What is the number and types of KAMs that are reported more frequently?

RQ 2: Which types of KAMs are reported by industry sector and type of audit firm?

3. Data, sample and results of content analysis

3.1. Data and sample

To answer the above research questions, we investigate and report KAMs that were published in 153 audit reports of companies listed on the Athens Stock Exchange (ASE). The sample, as shown in Table 1, consists of companies whose shares are traded on the main market, regardless of whether they are under supervision or have been suspended.

Table 1: Sample

	Total
Companies Listed on the Athens Stock Exchange	175
Minus:	
Missing data	(18)

Auditor's inability to express opinion	(3)
Modified audit opinion	(1)
Final Sample	**153**

Listed companies are subject to mandatory external auditing and their financial results are published and accessible. Additionally, these companies attract greater interest from investors and users of financial statements. The period covered by the sample is 2017, the first year during which mandatory communication of KAMs was implemented. We include sixteen industries in our sample: Technology, Telecommunications, Health Services, Banks, Financial and Insurance Services, Real Estate, Consumer Goods and Services-Retail, Media, Travel and Leisure, Food Beverage and Tobacco, Personal Hygiene Products, Construction and Building Materials, Industrial Products and Services, Basic Materials, Energy, Utility companies.

The data on the audit reports were hand-collected from the annual report of each company, found on the ASE's database or on the company's own website. Subsequently, we manually collected and coded the KAMs of each company in a spreadsheet document. To ensure objectivity, we reread the original audit reports and, whenever deemed necessary, performed the codification again. In the content analysis, we split the audit firms into four groups, as follows: 1) Big 4, including PricewaterhouseCoopers (PwC), Deloitte Touche Tohmatsu (DTT), Ernst & Young (EY), and KPMG, 2) CROWE-SOL S.A. (former SOL S.A.), 3) Grant Thornton, 4) various, including the remaining auditing firms. In Greece, CROWE-SOL ranks first regarding the number of financial statement audits it performs and the number of certified auditors it employs. Table 2 shows the audit market share by industry.

As is shown in Table 2, 40 companies were audited by CROWE-SOL, and 37 by the Big 4.

Table 2: Descriptive data by industry

Industry	No. Companies	No. of companies audited by audit firm group	Total Assets (in euros)	Leverage
Personal Hygiene products	2	Crowe-Sol (1), Various (1)	342,464,663	35.95%
Media	3	Big 4 (1), Grant Thornton (1), Various (1)	210,888,323	95.01%
Health services	4	Big 4 (1), Grant Thornton (1), Various (2)	767,630,374	78.30%
Financial Services and Insurance	4	Big 4 (1), Crowe-Sol (1), Grant Thornton (1), Various (1)	3,319,183,305	81.97%
Utilities	4	Crowe-Sol (3), Grant Thornton (1)	17,613,619,000	58.93%
Telecommunications	5	Big 4 (2), Crowe-Sol (2), Various (1)	8,390,495,735	67.74%
Banking	5	Big 4 (5)	256,586,958,000	86.62%
Energy	5	Big 4 (2), Crowe-Sol (2), Grant Thornton (1)	11,930,344,138	67.88%

Travel and leisure	8	Big 4 (2). Crowe-Sol (1), Crowe-Sol & Grant Thornton (joint audit) (2), Grant Thornton (2), Various (1)	4,808,392,064	65.41%
Technology	10	Big 4 (1), Crowe-Sol (5), Various (4)	508,057,723	54.56%
Real Estate	11	Big 4 (7), Crowe-Sol (2), Various (2)	3,302,665,689	40.23%
Constructions and Building Materials	13	Big 4 (1), Crowe-Sol (1), Grant Thornton (5), Various (6)	9,792,701,579	82.95%
Basic Resources	16	Big 4 (2), Crowe-Sol (8), Grant Thornton (2), Various (4)	2,616,982,268	65.81%
Food-Drinks-Cigarettes	18	Big 4 (4), Crowe-Sol (4), Grant Thornton (4), Various (6)	8,893,962,732	56.67%
Consumer services and products-Retail	19	Big 4 (2), Crowe-Sol (5), Grant Thornton (4), Various (8)	3,520,521,407	46.70%
Industrial Products and Services	26	Big 4 (6), Crowe-Sol (5), Grant Thornton (5), Various (10)	10,331,640,200	61.85%
TOTAL	**153**		**342,936,507,200**	

Notes: Audit firms are split into four groups: 1) Big-4, including PricewaterhouseCoopers (PwC), Deloitte Touche Tohmatsu (DTT), Ernst & Young (EY), and KPMG, 2) CROWE-SOL S.A., 3) Grant Thornton, 4) various, including the remaining auditing firms. Leverage equals total debt to total assets.

The remaining 47 companies were audited by other audit firms. The descriptive data include the total assets and the average leverage ratio (total debt/total assets) of each industry. Interestingly, the total assets of the banking sector are four times greater than the sum of the total assets of all the remaining sectors. The Media sector is particularly debt-laden (95.01%), while the Personal Hygiene Products sector is the one that is less burdened with debt (35.95%). It is clear in Table 2 that financial institutions (Banking) have a preference to the Big 4 audit firms.

3.3. Results of content analysis

Table 3 shows that the 153 audit reports revealed 355 KAMs, which is approximately 2.3 per audit report. The minimum number of KAMs reported is zero and the maximum is six. It is noteworthy that the mean value of KAMs is highest in the Banking sector (3.6 per audit report). On the contrary, the Real Estate sector reports the lowest mean value of KAMs (1.45).

Table 3: Number of KAMs by industry

Industry	No. of Companies	No. of KAMs	Mean	Std.Dev	Min	Max
Personal Hygiene Items	2	6	3.00	1.41	2	4
Media	3	7	2.33	0.58	2	3
Health services	4	9	2.25	1.26	1	4
Financial Services and Insurance	4	8	2.00	2.00	1	5
Utilities	4	10	2.50	1.29	1	4
Telecommunications	5	17	4.00	0.55	3	4
Banking	5	18	3.60	0.89	3	5
Energy	5	15	3.00	0.71	2	4

Travel and leisure	8	19	2.38	1.06	1	4
Technology	10	18	1.80	0.79	0	3
Real Estate	11	16	1.45	0.93	1	4
Constructions and Building Materials	13	38	2.92	1.19	1	5
Basic Resources	16	32	2.00	0.37	1	3
Food-Drinks-Cigarettes	18	48	2.67	0.91	1	4
Consumer services products-Retail	19	35	1.84	0.96	0	3
Industrial Products and Services	26	59	2.27	1.15	1	6
Total	**153**	**355**	**2.26**	**1.00**	**0**	**6**

As illustrated in Table 4, multinational audit firms tend to report more KAMs per audit report. Big 4 firms report an average of 2.57 KAMs, followed by Grant Thornton (2.46). CROWE-SOL, which occupies the largest share of the Greek audit market, has the smallest number of reported KAMs.

Table 2: Number of KAM by audit firm

Audit firm	No. of Companies	No. of KAMs	Mean	Min.	Max.
Big-4	37	95	2.57	1	6
CROWE-SOL	40	81	2.19	1	4
Grant Thornton	27	66	2.46	1	5
Various	47	107	2.27	1	5
Grant Thornton & CROWE-SOL	2	6	3.00	2	4
Total	153	355			

Table 5 reports the type of KAMs by industry. The most reported KAM, disclosed in approximately 21% of reports, is recoverability of trade receivables. Inventory valuation is the second most common KAM, followed by revenue recognition and valuation of plant, property, and equipment. The high ranking of valuation and impairment indicates that auditors examine important asset valuations to ensure they are not overvalued.

Table 5: Types of KAMs

Industry	Recoverability Trade Receivables	Inventories	Revenue Recognition	Valuation of Property. Plant and Equipment	Impairment of Investments in Subsiadiaries	Impairment of Goodwill and Intangible Assets	Provision and Contingent Liabilities	Valuation of Investment properties	Impairment of Non current Assets	Laon Liabilities & Liquidity	Recoverability of Other Receivables	Deferred Tax	Impairment of Property. Plant and Equipment	Investment Valuation in Subsidiaries	Going Concern	Various	Total
Personal Hygiene Items	1	2	1			1	1										**6**
Media	2	1	1		1	2											**7**
Health services	3		3		1								1		1		**9**
Financial Services and Insurance	2		1				2	1	2								**8**
Utilities	3	1	2	1			2							1			**10**
Telecommunications	1		4	1	4	2	1		2			1				1	**17**
Banking	5						1					5				7	**18**
Energy	3	2	4	1			1		3	1							**15**
Travel and leisure	1		5	3	2	3	2		1					1		1	**19**
Technology	4	2	3			4	1	1						1		2	**18**
Real Estate				1	2		2	9		1				1			**16**
Constructions & Building Materials	4	4	6		4	3	4	4	2	2	3		1	1	1	1	**40**
Basic Resources	10	8	1	5							2			1	1	2	**30**
Food-Drinks-Cigarettes	12	12	3	4	2	3	1	1		4	1		2	1	1	1	**48**
Consumer services & products-Retail	8	9	4	5	1	2		1			1		1		2	1	**35**
Industrial Products and Services	15	9	5	3	6	3	4	1	3	2	2	1	2		1	2	**59**
Total	**74**	**50**	**43**	**24**	**23**	**23**	**22**	**18**	**13**	**10**	**9**	**7**	**7**	**7**	**7**	**18**	**355**

Table 6 presents the KAMs reported more frequently by audit firm. The analysis reveals a differentiation between the Big 4 and the rest of the audit firms. While among the Big 4 the most common KAMs are related to provisions and contingent liabilities, followed by impairment of investment in subsidiaries and valuation of investment properties, in the other firms the most reported KAMs include recoverability of trade receivables, inventory valuation, and valuation of property, plant, and equipment. The difference is due to the nature of the client base of each audit firm and of the industry sector they audit. Valuation of investment properties arises more often in the Real Estate sector. Thus, it is likely to be a common KAM in the Big 4, since they audit seven out of eleven companies in this sector.

Table 6: The three most common KAMs by audit firm

Audit firm	Type of KAMs	No. of KAMs
Big-4	Provisions and Contingent Liabilities	10
	Impairment of Investments in Subsidiaries	8
	Valuation of Investment Properties	8
CROWE SOL	Recoverability of Commercial Claims	21
	Measurement of Inventories	17
	Valuation of Property, Plant and Equipment	10
Grant Thornton	Recoverability of Commercial Claims	13
	Measurement of Inventories	8
	Valuation of Property, Plant and Equipment	5
Various	Recoverability of Commercial Claims	28
	Measurement of Inventories	20
	Valuation of Property, Plant and Equipment	8

4. Empirical analysis

4.1 Hypotheses and models

Improving our understanding of the factors determining the number of KAMs that are included in the audit report would be useful. A review of the literature indicates that the size of the audited company constitutes an important factor. More specifically, it is likely that auditors report a larger number of KAMs, when larger companies with more complex activities are audited (Sierra-García et al., 2019; Kend & Nguyen, 2020). Moreover, the type of the audit firm (Big 4 vs. non-Big 4) can positively influence the quality of the services offered. The larger the audit firm, the larger the quality of the external audit, thus increasing the likelihood of identifying more KAMs in the audited company (Sierra-García et al., 2019; Kend & Nguyen, 2020). Based on the above, we proceed to formulate the following hypotheses:

Hypothesis 1. The size of the audited company is positively associated with the number of KAMs included in the audit report.

Hypothesis 2. The type of the audit firm is positively associated with the number of KAMs included in the audit report.

These hypotheses are tested using empirical Model 1 that is applied as follows, for company i and year 2017:

$$NU_KAMS = \alpha_0 + \beta_1 SIZE + \beta_2 BIG4 + \beta_3 INDUSTRY + \beta_4 LISTING_STATUS + \beta_5 LISTING_DAYS + \beta_6 BUSY + \beta_7 SOL + \beta_8 AF_TENURE + \beta_9 AUDIT_OPINION + \beta_{10} AOLAG + \beta_{11} LEV + \beta_{12} ROA + \beta_{13} CA/TA + \varepsilon \quad (1)$$

The dependent variable, *NU_KAMS*, is the total number of matters that are reported in the "Key Audit Matters" section of the audit report. To test Hypothesis 1, we use the independent variable *SIZE* that measures the size of the audited company based on the total value of its assets. We expect that a larger number of KAMs will be identified and reported for companies of larger size. To test Hypothesis 2, we use the independent variable *BIG4*, an indicator variable that takes the value one if the audit firm belongs to the Big-4, and the value zero, otherwise. This variable is expected to have a positive coefficient, due to the higher reputation risk, higher risk of lawsuits from third parties, lower economic dependency from their clients, and higher specialization in comparison with non-Big 4 auditors.

Additionally, following prior literature, we use several control variables, that could influence the number of KAMs disclosed, as follows (Carcello & Li, 2013; Keune & Johnstone, 2015; Reid, Carcello et al., 2019): *INDUSTRY* is a variable that reflects the production sector in which the audited company operates, *LISTING_STATUS* is an indicator variable that takes the value one if shares are traded on the main market, and zero if they are suspended or under supervision. We expect that companies whose shares are suspended or supervised will have more KAMs. *LISTING_DAYS* is the natural logarithm of the total days, which the audited company is listed on the ASE. The variable is an indicator of maturity, with a negative expected coefficient since younger companies are more prone to financial difficulties and, as a result, likely to have more KAMs identified in the audit report. *BUSY* is an indicator variable that takes the value one, if the audited company's accounting period ended on December 31st, and zero otherwise. This variable controls the impact of the busy period on the number of KAMs auditors include in audit report. *SOL* is an indicator variable that takes the value one if the audit firm pertains to CROWE-SOL, and zero otherwise. Taking into account that CROWE-SOL has a great share of the

audit market and that its auditors have more experience and /or understanding of the Greek setting, we expect a positive coefficient. *AF_TENURE* is the natural logarithm of the audit firm tenure. Longer tenure should be linked to a better understanding of the company and the sector in which it operates, therefore the variable is expected to have a positive coefficient. *AUDIT_OPINION* is an indicator variable that takes the value one if the auditor has issued a report expressing a modified opinion, and zero otherwise. We expect that when the auditor issues a report expressing a modified opinion this report will include a larger number of KAMs. *AOLAG* is the natural logarithm of time lag (in days) between the fiscal year end and the date the audit report was issued. We expect that as the time lag increases, so will the number of KAMs.

Furthermore, we control for financial characteristics related to the audited company that could affect the number of KAMs. *LEV* is the ratio of total debt to total assets. This variable measures the impact of potential financial problems. High leveraged companies are expected to have more KAMs disclosed in the audit report. *ROA*, return on assets, is the net operating profit divided by total assets, and measures the profitability of the company. We hypothesize that the client's profitability will be positively associated with KAM disclosures. Finally, *CA/TA* is the sum of the inventory and accounts receivable divided by total assets. High levels of inventory and receivables suggest that the company is having difficulties selling its products and collecting receivables. Moreover, inventory and account receivables require more time to audit, more effort, and involve more independent judgment as compared to other asset accounts. Accordingly, larger values for this variable are more likely to be associated with a greater number of KAMs.

4.2 Empirical results

The Pearson correlation coefficients of the variables of model 1 that are used to test Hypotheses 1 and 2 are presented in Table 7. Even though significant correlations are present between some pairs of variables, such as ROA and LEV with a Pearson's r of -0.637, multicollinearity does not seem to be a problem, since correlation coefficients do not exceed 0.8.

Table 8 presents the results of model 1, i.e. the relation between the number of KAMs disclosed in audit reports and: a) the size of the audited companies, and b) the type of the audit firms. We are interested in the Beta column that shows whether a positive or negative association is observed and in the significance column that indicates the significance level. We observe that the coefficient of *SIZE* is positive and statistically significant at the 1% significance level, thus confirming our expectation that in bigger companies more KAMs would concern auditors (Hypothesis 1). Regarding Hypothesis 2, the variable *BIG-4* is not significant at any level of significance, therefore the size of the audit firm, when splitting between Big 4 and non-Big 4, does not impact the number of KAMs.

Table 3: Pearson correlation

	1	2	3	4	5	6	7	8	9	10	11	12	13
NU_KAMS (1)	1.000												
SIZE (2)	0.260**	1.000											
BIG4 (3)	0.130	0.326**	1.000										
INDUSTRY (4)	0.065	-0.103	-0.128	1.000									
LISTING_STATUS (5)	-0.006	0.105	0.125	-0.063	1.000								
LISTING_DAYS (6)	0.104	0.635**	0.132	-0.078	0.046	1.000							
BUSY (7)	0.125	0.031	0.093	0.063	0.022	0.042	1.000						
SOL (8)	-0.163*	-0.101	-0.336**	0.000	-0.006	-0.062	-0.089	1.000					
AF_TENURE (9)	0.019	-0.105	-0.126	0.036	-0.042	0.010	-0.122	0.488**	1.000				
AUDIT_OPINION (10)	0.099	0.018	0.046	0.062	0.164*	-0.119	-0.013	-0.136	-0.101	1.000			
AOLAG (11)	-0.035	-0.143	-0.287**	0.100	-0.383**	0.026	0.001	0.055	-0.007	0.028	1.000		
LEV (12)	0.195*	0.056	-0.068	0.058	-0.632**	0.053	0.054	-0.061	-0.051	0.001	0.501**	1.000	
ROA (13)	-0.017	0.004	0.182*	-0.059	0.400**	-0.086	-0.037	-0.015	0.076	0.020	-0.595**	-0.637**	1.000
CA/TA (14)	0.011	-0.334**	-0.165*	0.023	0.065	-0.345**	-0.074	0.052	-0.012	0.129	0.118	-0.030	0.108

NU_KAMS is the total number of matters that are reported in the "Key Audit Matters" section of the audit report. *SIZE* measures the size of the audited company based on the total value of its assets. *BIG4*, an indicator variable equal to one if the audit firm belongs to the Big-4, zero otherwise. *INDUSTRY* is a variable that reflects the production sector in which the audited company operates. *LISTING_STATUS* is an indicator variable that takes the value one if shares are traded on the main market, and zero if they are suspended or under supervision. *LISTING_DAYS* is the natural logarithm of the total days, which the audited company is listed on the ASE. *BUSY* is an indicator variable that takes the value one, if the audited company's accounting period ended on December 31st, zero otherwise. *SOL* is an indicator variable that takes the value one if the audit firm pertains to CROWE-SOL, and zero otherwise. *AF_TENURE* is the natural logarithm of the audit firm tenure. *AUDIT_OPINION* is an indicator variable that takes the value one if the auditor has issued a report expressing a modified opinion, and zero otherwise. *AOLAG* is the natural logarithm of time lag (in days) between the fiscal year end and the date the audit report was issued. *LEV* is the ratio of total debt to total assets. *ROA* is the net operating profit divided by total assets. *CA/TA* is the sum of the inventory and accounts receivable divided by total assets. *significant at 10%, ** significant at 5%

To further investigate the possible effect of the audit firm on the number of KAMs, we include CROWE-SOL as a separate indicator variable. As observed in Table 8, the variable is statistically significant at the 10% significance level, and negatively associated with the number of KAMs reported. This means that CROWE-SOL auditors disclose fewer KAMs in the audit report. This finding supports our Hypothesis 2, i.e. the greater competition to gain a larger share of the audit market may have led smaller audit firms to submit to possible pressures of client companies and not disclose KAMs. Moreover, the CROWE-SOL auditors' limited experience regarding the inclusion of the KAM paragraph in audit reports (first year of implementation in Greece) may have led them to a more conservative approach regarding the number of KAMs they disclose.

Table 4: Regression results for Hypotheses 1 και 2

NU_KAMS	Beta	t	Sign.
(Constant)		0.105	0.917
SIZE	0.337	3.058	0.003***
BIG4	-0.015	-0.163	0.871
INDUSTRY	0.046	0.587	0.558
LISTING_STATUS	0.108	1.028	0.306
LISTING_DAYS	-0.110	-1.044	0.298
BUSY	0.123	1.569	0.119
SOL	-0.173	-1.841	0.068*
AF_TENURE	0.171	1.900	0.059*
AUDIT_OPINION	0.045	0.553	0.581
AOLAG	-0.093	-0.879	0.381
LEV	0.337	2.750	0.007***
ROA	0.099	0.854	0.395
CA/TA	0.117	1.348	0.180
R2	0.127		
Observations	153		

NU_KAMS is the total number of matters that are reported in the "Key Audit Matters" section of the audit report. *SIZE* measures the size of the audited company based on the total value of its assets. *BIG4*, an indicator variable equal to one if the audit firm belongs to the Big-4, zero otherwise. *INDUSTRY* is a variable that reflects the production sector in which the audited company operates. *LISTING_STATUS* is an indicator variable that takes the value one if shares are traded on the main market, and zero if they are suspended or under supervision. *LISTING_DAYS* is the natural logarithm of the total days, which the audited company is listed on the ASE. *BUSY* is an indicator variable that takes the value one, if the audited company's accounting period ended on December 31st, zero otherwise. *SOL* is an indicator variable that takes the value one if the audit firm pertains to SOL S.A., and zero otherwise. *AF_TENURE* is the natural logarithm of the audit firm tenure. *AUDIT_OPINION* is an indicator variable that takes the value one if the auditor has issued a report expressing a modified opinion, and zero otherwise. *AOLAG* is the natural logarithm of time lag (in days) between the fiscal year end and the date the audit report was issued. *LEV* is the ratio of total debt to total assets. *ROA* is the net operating profit divided by total assets. *CA/TA* is the sum of the inventory and accounts receivable divided by total assets.

Regarding the remaining variables in the model, the coefficient of *LEV* is positive and statistically significant at the 1% significance level. This implies that the higher the leverage ratio is, the higher the likelihood of more KAMs being disclosed in the audit report. This could be explained by the fact that companies with financial problems have more areas in which significant risks exist. In addition, the coefficient of *AF_TENURE* is also positive and statistically significant at the 10% significance level. This suggests that as the tenure of the audit firm increases, and hence its knowledge of the client-company, the likelihood of disclosing more KAMs increases. Better knowledge of the company and the sector in which it operates, allows auditors to better understand and assess areas in which the risk of material misstatement is high and to better assess financial statements that involve significant managerial judgment. Among the other variables that were considered in the model, none were statistically significant, implying that they do not influence the number of KAMs that are disclosed in audit reports.

5. Conclusion

In this study, we investigate Key Audit Matters (KAMs) in the first year of implementation in Greece, in 2017. We content analyze the audit reports of 153 companies listed on ASE, and conduct an empirical analysis to examine whether the size of the company being audited, and the type of the audit firm affect the number of KAMs. Our results indicate that the number of KAMs is positively related with the size and leverage of the audited company, as well as the tenure of the audit firm. We find no association between the number of KAMs and the type of audit firm, when we distinguish between Big 4 and non-Big 4 audit firms.

There are limitations to the present study, yet some of these provide the opportunity for further research. We investigate only the first year of KAM disclosures in Greece. Extending the period of investigation would allow a more comprehensive analysis of the determinants of KAMs. Additionally, future research could include corporate governance mechanisms in the analysis, providing valuable insights. KAMs are expected to enhance users' ability to “better understand increasingly complex financial reports” (IAASB, 2012, paragraph 9). However, recent scandals, such as Tesco, Rolls-Royce, Carillion, and Wirecard, call into question, once again, the effectiveness of auditors.

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