

# Investigating on Disclosing Key Audit Matters in Japan: An early analysis in audit reports 2021

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## **Abstract**

This survey aims to clarify the results and tendency of the implementation of the KAMs disclosure standards in Japan, using fundamental analysis and descriptive statistics as an early investigation. Notably, this survey revealed that KAMs disclosure trends differed in many respects depending on the scales of audit firms. Firstly, the number of KAMs issues is greatly smaller than in other countries. This tendency is not significantly different from the audit scale. However, there is a significant difference between the Big4 and Non-Big4 audit firms regarding the word count of disclosed KAMs. Secondly, regarding KAMs topics, the fixed assets related to impairment losses and valuation are ranked high among the accounting estimate items because of the large amount and impact of financial statements. Particularly, this study succeeded in classifying cases in which impairment loss is recognized and unrecognized. This classification will make it possible to verify whether informational value regarding the prediction of future occurrence of impairment losses is provided to financial statement users. Thirdly, this study examines the rate of increase or decrease in audit fees in 2021 and 2022, considering that applying KAMs will increase the amount of

audit work and increase audit fees. Comparing the scale of audit firms, the Big4 sample shows that increasing at an average rate of the audit fees is higher than the Non-Big4 sample, and the difference between the two is significant. Furthermore, this study reveals a significant correlation between the change in audit fees and the number of KAMs issues in the Big4 sample, not in the Non-Big4 sample. Lastly, this study explores the relationship between KAMs disclosure and financial condition, finding that the correlation between the reported KAMs and financial indicators is generally relevant. The results also show that the Big4 sample group has a stronger correlation between financial indicators and KAMs reports than the Non-Big4 sample.

## **I . Introduction**

The purpose of this study is to offer early evidence of disclosing key audit matters (KAMs) in Japan by providing descriptive statistics and basic analysis, focusing on the scale of audit firms. The data and results of this study are intended to be used for future empirical research on the relationship between disclosing KAMs and corporate governance to contribute to international audit research. Therefore, the scope of the KAMs sample and perspective of investigations are slightly different from the normal investigation on KAMs.

The International Auditing and Assurance Standards Board (IAASB) issued International Standard on Auditing (ISA) 701 “Communication of Key Audit Matters (KAMs)” in 2015 (IAASB, 2015). In response to that global trend, the standard-setter in Japan revised the audit report to include the KAMs in 2018. This revision was made to enhance the audit report content by magnifying the explanation and information provision regarding audits to users of financial statements. The

disclosing rule of KAMs in Japan is applied officially from the fiscal year ending March 2021 under the Financial Instruments and Exchange Act in Japan. Additionally, the voluntary application of KAMs disclosure from the fiscal year ending March 2020 is also acceptable in Japan. Traditional audit report formats are so standardised that little valuable information is provided, like as international standard setters indicate that traditional audit report formats are not useful to users (IAASB, 2015; PCAOB, 2016). In response to that criticism, international audit standard setters decided to enhance auditors' reports by asking listed firms to include KAMs or critical audit matters (CAMs) in the U.S.

According to the revised auditing standard in Japan, KAMs are determined as issues that the auditors paid particular attention to during the audit process, remarkably important as a professional expert within the audit of financial statements under the condition where those are discussed with the Audit & Supervisory Board (or Audit Committee)<sup>1)</sup>. The new audit report with KAMs is thought to improve the transparency of audits and increase the information value of audit reports, thus improving the reliability of audits. It contributes to users of audited financial statements and deepens their understanding. KAMs disclosures are expected to alleviate some of the information asymmetries between managers and financial statements users, thus closing the expectation gap (Fuller, 2015; Ratzinger-Sakel and Theis, 2019). Additionally, further enhancement of communication with corporate auditors and discussions with management should strengthen corporate governance and effective auditing practices (IAS 701, par. 3, A61).

As KAMs disclosure, an innovative new audit report style, began officially in

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1 ) ISA 701 indicates KAMs as “Key audit matters - Those matters that, in the auditor’s professional judgment, were of most significance in the audit of the financial statements of the current period” (ISA 701, par. 8).

2021 in Japan, it is beneficial to offer the breakup of KAMs disclosure to compare with Western<sup>2)</sup> and other countries, already disclosing KAMs in practice. Moreover, as KAMs could enhance corporate governance, it is significant to clarify the relationship between the structure of firms, including financial situation, the content of KAMs, and the scale of audit firms in Japan because the characteristics of the auditor (audit firm) also influence the scope and nature of KAM disclosure in addition to the characteristics of the company (Sierra-García et al., 2019). Note the ancillary purpose of this study is to clarify the descriptive statistics intended for future empirical analysis of the determinants on KAMs disclosure in Japan.

## II. Sample selections

The selection of firms disclosing KAMs in this study is based on the NEEDS-Cges that is a corporate governance database in Japan, for the sake of another empirical research on determinants on disclosing KAMs. Therefore, the range of the firm sample might be slightly different from the normal survey. This study hand-collected the KAMs data until “the end of 2021” from the the annual report with KAMs in the audit report. The data is limited by its availability till 31st March 2021. For example, a firm with a settlement of accounts at the end of December is not included because the annual report has not yet been disclosed, despite disclosing KAMs for the 2021 fiscal year. When collecting the sample of KAMs, the audit report in the consolidated financial statements is prioritized and aggregated if the firms disclose consolidated financial statements. Eventually, this study uses 2,863

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2) The movement to enhance the provision of information about the audit process to audit report users has become a global trend (IAASB, 2015). In Europe, KAMs have been introduced in 28 European Union member states.

firms and 3,616 disclosing KAMs in 2021 in Japan. Table 1 indicates a sample of firms that apply accounting and industry standards.

Table 2 shows the categories of KAMs' topics in this investigation, grouped into three scales from large to small (details). The categorisation method is based on account classification in the financial statement. However, some KAMs topics are related to specific transactions. This study flexibly and professionally categorises the KAMs topics. Thus, it may not always be formally classified by the title of KAMs. Whenever possible, the content may be tied to a particular account.

### III. Descriptive Statistics for disclosing KAMs in Japan.

Table 3 indicates the number of disclosed KAMs and the percentage of firms in 2021 in Japan. Most firms in Japan disclosed a single topic in the first year of the KAMs application. The mean number of KAMs disclosures in Japan was approximately 1.26, quite lower than in other countries (Srijunpetch, 2017; Sierra-Garciaetal, 2019; Ferreira and Isabel Morais, 2020; Kend and Nguyen, 2020; Li, 2020; Ozcan, 2021). Regarding the number of KAMs disclosures, there is a tendency that the number of KAMs disclosures is large in Europe such as the UK and relatively small in some areas such as Thailand and Jordan (Suttipun, 2022; Abdullatif and Al-

**Table 1A: Sample of the number of firms that applied accounting standards**

Standard	Frequency (Firms)	Percentage
J-GAAP	2,696	94.2%
US-GAAP	10	0.3%
IFRS	157	5.5%
Total	2,863	100.0%

**Table 1B: Sample of industries and firms based on Nikkei middle classification**

Nikkei industry classification (Middle)	Frequency	Percentage
1 Grain Mill Products	94	3.3 %
3 Silk Reeling	39	1.4 %
5 Other Paper	21	0.7 %
7 Chemicals (Major)	166	5.8 %
9 Drugs (Major)	46	1.6 %
11 Oil & Coal Products	8	0.3 %
13 Tires	13	0.5 %
15 Carbon, NEC	42	1.5 %
17 Iron & Steel (Major)	41	1.4 %
19 Fabricated Metal Products	98	3.4 %
21 Machinery, NEC	191	6.6 %
23 Electric Equipment, NEC	201	7.1 %
25 Shipbuilding & Repairing	5	0.2 %
27 Auto Parts & Accessories	65	2.3 %
29 Railroad Equipment	10	0.4 %
31 Measuring Devices, NEC	41	1.4 %
33 Printing	80	2.8 %
35 Fish & Marine Products	11	0.4 %
37 Mining Except Coal Mining	5	0.2 %
41 Special Constructions	148	5.2 %
43 Wholesale - Foods	266	9.3 %
45 Retail Stores, NEC	146	5.1 %
47 Regional Banks	84	2.9 %
49 Securities	18	0.6 %
51 Insurance	10	0.4 %
52 Credit & Leasing	44	1.5 %
53 Real Estate - Rental	91	3.2 %
55 Railroad (Major)	30	1.1 %
57 Trucking	34	1.2 %
59 Shipping - Nucleus	10	0.4 %
61 Air Transportation	5	0.2 %
63 Harbor Transportation	34	1.2 %
65 Communication Services	33	1.2 %
67 Utilities - Electric	13	0.5 %
69 Utilities - Gas	7	0.2 %
71 Miscellaneous Services	713	24.9 %
Total	(Firms) 2,863	100.0 %

**Table 2: The KAMs topic categorisation**

Large Category	Middle Category	Small Category
A Revenue recognition and Other operating revenue and expenses	A1 Recognition of Revenue	A series of distinct services Revenue from contracts with customers (distinct goods or services) Recognition of Revenue (IT control)
	A2 Other operating income	Other operating income Sales discounts, sales rebates
	A3 Cost of sales / SG & A	Cost of sales, purchase rebates, cost accounting, selling expenses R & D expenses
		Fair value of share-based payment
B Fixed asset	B1 Impairment of Tangible assets	Impairment of Tangible assets (unrecognized) Impairment of Tangible assets Impairment of Investment property Valuation or Impairment of other Tangible assets
	B2 Impairment of Intangible assets	Impairment of Goodwill (unrecognized) Impairment of Goodwill Impairment of software, customer-related assets, work-in-process R & D
	B3 Valuation of software	Valuation of software
		Investments in Associates and Joint Ventures
C Investment and other long-lived assets	C1 Investments in Associates and Joint Ventures	Impairment and valuation of operating investment receivables
	C2 Deferred tax asset	Deferred tax asset
	C3 Long-term prepaid expenses Valuation of other investment assets	Long-term prepaid expenses Allowance For Bad Debt (non-operating)
D Trading of fixed assets	D1 Trading of fixed assets	Sale and Leaseback Liquidation of fixed assets Capital expenditure Other trading of fixed assets



**Table 2: Continuation of the table**

Large Category	Middle Category	Small Category
K Liabilities	K1 Liabilities	Recognized contingent liability Asset retirement obligation Account payable Accounting and reporting by Retirement benefits plans Transfer pricing taxation risk Debt Equity Swap Premium reserve (insurance industry) Insurance re-contract Liabilities (insurance industry)
	K2 Insurance industry - specific	
L Mergers and Acquisitions	L1 Allocation of acquisition costs	Measurement of acquisition costs Allocation of acquisition costs to Goodwill Allocation of acquisition costs to customer-related assets /work-in-process R & D Gain on bargain purchase Other consolidated transaction Business acquisition Consolidation scope
	L2 Other consolidated transaction	
	L3 Business acquisition	
	L4 Consolidation scope	
M IT system	M1 IT system	IT system Reorganization of IT system Other IT system related transactions
N Fraudulent accounting / Audit-specific	N1 Fraudulent accounting	Fraudulent accounting
	N2 Internal control	Internal control
	N3 Other audit-specific	Correction annual report Difficulty in communication due to language differences Difference in closing date of subsidiaries
O COVID-19	O1 COVID-19	Impact of COVID-19 on accounting estimates

**Table 3: The number of disclosed KAMs and the scale of audit firms**

The number of disclosed KAMs	All samples		Big4		Non-Big4	
	The number of firms	Percentage	Firms	Percentage	Firms	Percentage
5	1	0.03%	1	0.05%	0	0.00%
4	10	0.31%	9	0.45%	1	0.12%
3	66	2.27%	51	2.53%	15	1.77%
2	587	20.64%	408	20.23%	179	21.16%
1	2,199	76.75%	1,548	76.75%	651	76.95%
Total 3,616 KAMs	(firms) 2,863	100.00%	2,017	100.00%	846	100.00%

Rahahleh, 2020; Zhang and Shailer, 2021). Generally, the audit reports of more complex clients, those audited by a Big 4, are expected to include a greater number of KAMs (Ferreira and Morais, 2020). According to the calculation from Table 3 in this study, the mean of the number of disclosed KAMs for the Big4 (Deloitte, PricewaterhouseCoopers (PwC), KPMG, and Ernst & Young)<sup>3)</sup> and Non-Big4 audit firms are 1.27 and 1.25, respectively. However, there is no significant difference between the Big4 and Non-Big4 firms on the mean of the number of disclosed KAMs by t-test (un-tabulated). Therefore, no significant difference may be obtained in the number of KAMs reports, even if a regression analysis is performed between Big4 and other audit firms in Japan inconsistent with Wuttichindanon and Issarawornrawanich (2020), and Seebeck and Kaya (2021) indicating the relation between Big4 audit firms and the number of KAMs disclosures.

3) The names of the four major audit firms in Japan are “Ernst & Young ShinNihon LLC”, “KPMG AZSA LLC”, “Deloitte Touche Tohmatsu Limited”, and “PricewaterhouseCoopers Aarata LLC”.

**Table 4A: Ranking of KAMs topics under the large category (overview)**

	Large Category	Frequency	Percentage
B	Fixed asset	1,322	36.6%
H	Revenue recognition and Other operating revenue and expenses	778	21.5%
F	Investment and other long-lived assets	511	14.1%
O	Current assets	479	13.2%
D	Allowance for operating expenses	122	3.4%
I	Mergers and Acquisitions	98	2.7%
M	Disclosure by note	87	2.4%
G	Allowance for loss and Abnormal losses	62	1.7%
L	Financial instruments transactions	51	1.4%
J	Liabilities	32	0.9%
C	Fraudulent accounting / Audit-specific	21	0.6%
K	Trading of fixed assets	19	0.5%
A	IT system	16	0.4%
E	Depreciation	10	0.3%
N	COVID-19	8	0.2%
	Total	3,616	100.0%

## 1. Report content (topic)

Table 4 shows KAMs topics reported in Japan in 2021, based on the large (overview) to small (details) categorisation. Note that the way of classification can be subjective, especially in the small category, because there are some cases of multiple topics in a single KAM. In that case, an appropriate category is judged by following the largest explanation of the topic or the amount of account in the financial statements. The ranking shows accounting estimates with long-term forecasts and evaluations, including impairment loss recognition, selected as KAMs topics. Additionally, topics related to sales activities, such as revenue recognition, are ranked high in response to their importance and transaction complexity, including the dependence on the IT systems. Particularly, as IFRS No. 15 is applied in Japan as a domestic accounting standard (J-GAAP), there are many cases where heavy auditing

**Table 4B: Ranking of KAMs topics under the middle category**

Middle Category	Frequency	Percentage
Impairment of Tangible assets	939	26.0%
Recognition of Revenue	743	20.5%
Deferred tax asset	431	11.9%
Impairment of Intangible assets	353	9.8%
Valuation of inventories	323	8.9%
Valuation of receivables	152	4.2%
Allowance for operating expenses	122	3.4%
Disclosure by note	87	2.4%
Allocation of acquisition costs	85	2.4%
Investments in Associates and Joint Ventures	63	1.7%
Allowance for loss and other losses	62	1.7%
Valuation of financial products without market value	40	1.1%
Valuation of software	30	0.8%
Cost of sales / SG & A	26	0.7%
Liabilities	22	0.6%
Trading of fixed assets	19	0.5%
Long-term prepaid expenses	17	0.5%
IT system	16	0.4%
Fraudulent accounting	12	0.3%
Financial instruments transactions	11	0.3%
Depreciation	10	0.3%
Insurance industry - specific	10	0.3%
Other operating income	9	0.2%
Other consolidated transaction	8	0.2%
COVID-19	8	0.2%
Consolidation scope	5	0.1%
Other audit-specific	5	0.1%
Other assets	4	0.1%
Internal control	4	0.1%
Total	3,616	100.0%

**Table 4C: Ranking of KAMs topics under the small category (details)**

Small Category	Frequency	Percentage
Impairment of Tangible assets	633	17.5%
Deferred tax asset	431	11.9%
Revenue from contracts with customers (distinct goods or services)	408	11.3%
Valuation of inventories	323	8.9%
A series of distinct services	290	8.0%
Impairment of Tangible assets (unrecognized)	283	7.8%
Impairment of Goodwill (unrecognized)	173	4.8%
Allowance For Bad Debt (operating)	144	4.0%
Impairment of Goodwill	141	3.9%
Reserve for loss on construction contracts	76	2.1%
Investments in Associates and Joint Ventures	51	1.4%
Going concern	51	1.4%
Recognition of Revenue (IT control)	45	1.2%
Valuation of financial products without market value	40	1.1%
Impairment of software, customer-related assets, work-in-process R & D	39	1.1%
Allowance for losses (abnormal losses)	33	0.9%
Allocation of acquisition costs to Goodwill	33	0.9%
Valuation of software	30	0.8%
Reserve for returned goods unsold / Reserve for product guarantee	30	0.8%
Allocation of acquisition costs to customer-related assets /work-in-process R & D	26	0.7%
Related party disclosure	24	0.7%
Cost of sales, purchase rebates, cost accounting, selling expenses	22	0.6%
Impairment of Investment property	18	0.5%
Gain on bargain purchase	18	0.5%
Proceedings-related loss / COVID-19 related loss, natural disasters	17	0.5%
Reserve for other operating expenses / Refund liability	16	0.4%
Allowance for Bad Debt (non-operating)	14	0.4%
Impairment and valuation of operating investment receivables	12	0.3%
Restructuring losses	12	0.3%
Fraudulent accounting	12	0.3%
Measurement of acquisition costs	8	0.2%
Impact of COVID-19 on accounting estimates	8	0.2%
Premium reserve (insurance industry)	8	0.2%
Liquidation of fixed assets	7	0.2%
Change in accounting policy /Post-balance sheet events	7	0.2%

**Table 4C: Continuation of the table**

Small Category	Frequency	Percentage
Other trading of fixed assets	6	0.2%
Other transactions related to financial products	6	0.2%
Asset retirement obligation	6	0.2%
Reorganization of IT system	6	0.2%
Other IT system related transactions	6	0.2%
Other operating income	5	0.1%
Valuation or Impairment of other Tangible assets	5	0.1%
Hedge accounting	5	0.1%
Account payable	5	0.1%
Accounting and reporting by Retirement benefits plans	5	0.1%
Consolidation scope	5	0.1%
Other consolidated transaction	5	0.1%
Depreciable life	5	0.1%
Complexity of depreciation calculation	5	0.1%
Sales discounts, sales rebates	4	0.1%
Valuation of operating receivable	4	0.1%
Valuation of other operating receivable	4	0.1%
Disclosure regarding the application of revenue recognition standards	4	0.1%
Recognized contingent liability	4	0.1%
IT system	4	0.1%
Internal control	4	0.1%
R & D expenses	3	0.1%
Sale and Leaseback	3	0.1%
Capital expenditure	3	0.1%
Business acquisition	3	0.1%
Correction annual report	3	0.1%
Long-term prepaid expenses	3	0.1%
Cryptocurrency reality	2	0.1%
Insurance re-contract Liabilities (insurance industry)	2	0.1%
Contingent liability	1	0.0%
Difference in closing date of subsidiaries	1	0.0%
Fair value of share-based payment	1	0.0%
Debt Equity Swap	1	0.0%
Difficulty in communication due to language differences	1	0.0%
Financing of Subsidiaries	1	0.0%
Ensuring liquidity of cash on hand	1	0.0%
Transfer pricing taxation risk	1	0.0%
Total	3,616	100.0%

is required for revenue recognition. The valuation of investment accounts is also ranked high because it often involves determining the impairment recognition of equity-method affiliates and requires a large number of estimates in the valuation process. In general, items with a higher risk of material misstatement are selected as KAMs, and there is no significant difference compared to other countries. It suggests that KAMs topics auditor picked up can be of great help in addressing the gaps in audit expectations and the issues presented by audit reports with KAMs.

This investigation attempts to distinguish the KAMs content, indicating the situation between recognised impairment losses and the unrecognised, allowing the prediction and analysis of the possibility of future impairment loss recognition for future research.<sup>4)</sup> KAM's information on previously unrecognized impairment losses may support the prediction of future events.<sup>5)</sup> As impairments of fixed assets or goodwill are more critical and valuable for predicting future cash flows, the different impacts of future performance and market price can be compared. On the contrary to the frequent topics, there are also many individual cases. The fewer the topics, the more firm-specific incidents could be informative and significant due to the KAMs system. Considering the role of audit reports, which are expected to greatly increase

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4) The way of identifying the case of unrecognised impairment losses in the KAMs is as follows. If there is a statement in the content of KAM that “impairment loss is not recognized,” it is judged as an unrecognized case. Next, when there is no description of recognized impairment, referring to the financial statements and the notes, and if no impairment loss is recorded, it is judged to be an unrecognized case.

5) Annette et al. (2020) suggest that disclosure of KAMs with changes to the assumptions regarding goodwill impairment testing could ultimately lead to goodwill impairment in the future. Therefore, the information provided by KAMs (especially accounting estimation items such as impairment) may contribute to future forecasts by users. Kitiwong and Sarapaivanich (2020) reveal disclosed KAMs in Thailand are associated with the acquisition are more informative resulting in the evidence of improvement of audit quality while the most common type of disclosed KAMs are not. Lau (2021) insists that auditor reports with the KAM associated with the accounting estimation do not improve the value of the revenue and its predictive relevance.

opportunities for communication with users of financial statements, it is favorable that the introduction of KAMs will further convey firm-specific information to users. The firm-specific content of KAMs can be more valuable than the common type of KAMs (Kitiwong and Sarapaivanich, 2020).

## **2. Description amount of KAM (Volume)**

It is controversial whether the volume of the KAMs description has something to do with the informative value. There is some prior literature focusing on the KAMs levels or word count. Financial statement users can be more sensitive to the quantitative aspect of KAMs (i. e. the number of KAMs) (Srijunpetch, 2017). According to Limaporn et al. (2019), Velte (2020), Muttanachai (2020), and Suttipun and Swatdikun (2021), the words counted as KAMs reporting have negatively related to the financial performance. Intuitively, a higher volume can include plenty of content and be thought to be informative. Seebeck and Kaya (2021) indicate that the length of audit reports (as a control variable) in post-ISA 700 periods has relation to the improvement of the quality of audit reports. Of course, the recipient of information does not always respond solely to the volume (Sirois et al., 2018). It does not always mean that a large amount of KAMs description is sufficient in the case of “boilerplate” indicating that it does not provide new or useful information (Brasel et al., 2016) and the case of the overuse of technical language that might cause an inhibition on users’ understanding of KAMs (Bédard et al., 2019; Reid et al., 2019). It is also reasonable to think simple and concise is better in some cases. However, this study treats the descriptive quantity of KAMs as a quantitative representation of the usefulness of the information following prior research.

Table 5 shows the average description amounts (the number of Japanese words) for each KAM topic when classified as a large category. The way of counting the

Table 5 The average description amounts (the mean of Japanese word count)

Large Category	Mean of the number of KAM Words			t-test
	All (2,199 firms)	Big4 (1,548 firms)	Non-Big4 (651 firms)	
A Revenue recognition and Other operating revenue and expenses	1,206	1,288	978	$t = 7.87$ ***
B Fixed asset	1,315	1,409	1,095	$t = 11.53$ ***
C Investment and other long-lived assets	1,028	1,084	918	$t = 3.64$ ***
D Trading of fixed assets	1,171	1,158	943	$t = 3.21$ ***
E Current assets	1,316	1,435	1,017	$t = 7.46$ ***
F Allowance for operating expenses	1,275	1,268	1,296	$t = -0.260$
G Depreciation	1,215	1,220	1,280	$t = -0.052$
H Allowance for loss and Abnormal losses	1,173	1,163	1,107	$t = 0.246$
I Financial instruments transactions	1,189	1,286	982	$t = 2.051$ **
J Disclosure by note	1,233	1,410	800	$t = 2.813$ ***
K Liabilities	1,239	1,470	685	$t = 2.343$ ***
L Mergers and Acquisitions	1,165	1,192	1,120	$t = 0.908$
M IT system	793	837	608	$t = 1.012$
N Fraudulent accounting / Audit-specific	1,170	1,444	796	$t = 3.808$ ***
O COVID-19	1,308	1,496	1,120	$t = 2.801$ ***
Total Average	1,186	1,277	983	$t = 12.69$ ***

Note: When calculating the average number of words for each item based on the large category, the total to the firm sample is limited to report only one KAM. Therefore, it might have a sample bias that does not reflect the mean of the population in each category. \*\*\*, \*\* and \* denote significance level at 0.01, 0.05 and 0.10, respectively.

number of words in KAMs is to copy and paste the contents without title and other formulaic information if copying is allowed; if not, count the lines and the number of horizontal characters calculating the approximate number carefully considering the space and layout. Therefore, the number of words in the KAMs in this study is partially an approximate figure. Note that when totaling the description amounts for each topic in Table5, the calculation is made to limitedly disclose a single topic.

Interestingly, there is a significant difference in the mean amount of description of KAMs between Big4 and other audit firms (Non-Big4). Even when focusing on each item, there is a significant difference between Big4 and other audit firms in terms of the amount of KAMs description in some large categories. This difference has not been highlighted in previous international studies, and it is considered specific to Japan. As the relationship with the financial data described later shows, there are significant differences in the number of descriptions of KAMs regarding the size of clients and the number of segments consisting with Muttanachai (2020) that company size and complexity have a significant positive impact on the level of KAM reporting. Therefore, the difference in the scale of the audit firm explains the difference in the amount of description. While prior studies mentioned above indicate the relationship between the large word count and poor performance, this study reveals the relationship between word count and the difference of the audit firm scale in Japan.

Even so, as the selected KAMs items by the audit firms are references to individual cases of a client, it is possible to reasonably explain the number of disclosed KAMs items can be determined by those characteristics of the client and audit firm, but it might be difficult to explain the difference of the amount of word count. While a small amount of description could be considered to have the advantage of being concise, clear, and highly understandable, unfortunately, the small word count of KAMs content in Japan often gives the impression that the information content is poor. Of course, since a problem called “boilerplate” (PwC,

2014; KPMG, 2019; Rousseau and Zehms, 2020) that repeats the same description has been pointed out, it cannot be said that a large number of characters does not necessarily indicate the usefulness of the information. This could be a research question for another study on audit quality issues.<sup>6)</sup>

### 3. Audit Fees

Li et al. (2019) show that the introduction of new audit reports increases audit fees and, as a result, improves the quality of financial reporting. The application of KAMs is thought to increase the amount of audit work, which may also increase audit fees (Carcello and Li, 2013; Bédard et al., 2014; Pinto and Morais, 2018; Almulla and Bradbury, 2019; Sierra-García et al., 2019; Chen et al., 2020).<sup>7)</sup> It is reasonable to regard that the audit fee is determined when KAMs start from the first year of application (Almulla and Bradbury, 2019). Therefore, by analysing the rate of increase or decrease in audit fees in 2021 and 2022, shown in Table 6, it is possible to compare the fee before and after introducing the KAMs system. Suttipun (2022) shows a significant positive relationship between auditor type, audit fees, and KAM reporting levels. According to Gutierrez et al. (2018) companies with long audit reports in the period after ISA 700 pay higher audit fees in the United Kingdom. Therefore, in this study as well, it is expected that there will be some relationship between the KAMs reports and the audit fee (or the scope of the audit firms). After

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6) Although specific statistics are not shown in the text, even among audit firms other than Big4, the amount of description tends to be relatively large for mid-sized audit firms. Therefore, regarding the classification of audit firms, it is considered possible to show the difference in the amount of KAMs description more clearly by distinguishing between large, medium, and small size audit firms.

7) Reid et al. (2019) and Gutierrez et al. (2018) indicate that there are no significant changes in audit fees or audit delays associated with the implementation of the new reporting system. Ferreira and Morais (2020) also show the result that auditor's fees show a negative relationship with the number of KAMs.

Table 6: Descriptive statistics of Audit fees sample

Variable	Rate of change in Audit Fees				The number of KAM				Volume (JP Words)			
	***( <i>t</i> = 5.39)				<i>t</i> = 0.73)				***( <i>t</i> = 11.22)			
Mean	0.042	0.050	0.024	1.25	1.26	1.24	1,261	1,359	1,022			
Std. Dev.	0.118	0.120	0.113	0.50	0.51	0.46	740	774	584			
Minimum	-0.363	-0.363	-0.351	1	1	1	326	420	326			
Maximum	1.325	1.325	1.125	5	5	4	7,911	7,911	7,380			

• Samples are excluded when audit fees have increased or decreased remarkably before and after introducing the KAM system due to changes in audit corporations, significant organizational restructuring, etc.

• The audit fees have been adjusted to an abnormal amount due to revised annual reports of previous years.

• Not specified in the table, the percentage of unchanged audit fees between 2021 and 2022 is 36.7% as a whole (Big4 29.9% and Non-big4 53.3%).

collecting the sample on audit fees, the sample is excluded, or the audit fee is adjusted if it is clear that the audit fee has increased (or decreased), for example, a sample firm with the early application of KAMs, switch of an audit firm, the case of increased fees due to corporate restructuring, and correction of annual reports of previous years, among others. The mean of the change of audit fees between 2021 and 2022 shows a positive, which may imply the increase in audit fees is due to the application of KAMs after being excluded or adjusted in the sample.

Based on these assumptions, considering the rate of change in audit fees seen in Table 6, the overall trend is increasing before and after the introduction of KAMs. While audit fees increased by 4.2% on average in all samples, Big4 increasing at an average rate of 5% is higher than Non-Big4 (2.4%), and the difference between the two is significant by t-test. Additionally, the percentage of unchanged audit fees between 2021 and 2022 is 36.7% in all samples. However, comparing the case unchanged of audit fees in Big4 29.9% and Non-Big4 53.3% in each group implies a higher sensitivity of audit fees in the Big4 audit firms due to the introduction of the KAMs system. Therefore, when comparing Big4 and others (Non-Big4), it is clear that the increase in audit fees for Big4 is more remarkable than for other audit firms (Non-Big4) before and after the introduction of KAMs. The weaker upward trend in audit fees before and after the introduction of KAMs by small-and medium-sized audit firms may reflect other problems with audit fees in Japan. However, this study does not mention the validity of audit fees for small-and medium-sized audit firms.<sup>8)</sup>

Table 7 displays the correlation between the rate of change in audit fees and the number of KAMs topics (and volume). There is no significant correlation between

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8) Ishak and Abidin (2021) suggest that KAMs of audit fees are related to firm scale, poor performance, and liquidity issues. In particular, they find that PWC and KPMG probably charge higher fees for brand names than other audit firms.

**Table 7: Correlations between the change of Audit fees and KAMs disclosure**

All sample	$\Delta$ Audit Fee	Big4 sample	$\Delta$ Audit Fee	non-Big4 sample	$\Delta$ Audit Fee
KAM	0.024 (0.199)	KAM	**0.044 (0.042)	KAM	– 0.036 (0.304)
Word	0.011 (0.550)	Word	– 0.001 (0.972)	Word	– 0.041 (0.238)

- Samples are excluded when audit fees have increased or decreased remarkably before and after introducing the KAM system due to changes in audit corporations, significant organizational restructuring, etc.
- The audit fees have been adjusted to an abnormal amount due to revised annual reports of previous years.
- The number inside ( ) below correlation indicates p-value.
- \*\*\*, \*\* and \* denote significance level at 0.01, 0.05 and 0.10, respectively.

the change in audit fees and the number of KAMs topics (and volume, respectively) in all samples. However, when the sample is divided into Big 4 audit firms and Non-Big4, a significant correlation is found between the change in audit fees and the number of KAMs issues in the Big4 sample. Nevertheless, there is no such relationship in the Non-Big4 sample (a non-significant but rather negative correlation is shown). The negative rate of change in audit fees of small and medium-sized audit firms before and after the introduction of KAMs may be related to the number of KAMs contents and the small amount of description. However, the fact that the amount of KAMs is not related to the increase in audit fees of Non-Big 4 audit firms (rather, the possibility of a negative relationship) may not necessarily mean poor quality KAM disclosure. Moroney et al. (2021) reveal that the audit report with KAMs conducted by Non-Big 4 firms improves perceived value and credibility. Reid et al. (2019) find that in the U.K. the EAR improves financial reporting quality without increasing audit costs. Therefore, KAMs from non-Big4 audit firms without an increase in audit fees may imply that they can provide useful KAM information without increasing audit fees.<sup>9)</sup>

#### **IV. Relationship between financial indicators and KAM disclosure**

Many KAMs topics are so closely related to accounting estimates, revenue recognition, and other significant transactions that it is meaningful to investigate the relationship between the financial condition and the disclosure of KAMs which is expected to offer supplementary information for users' decision-making. Asbahr and Ruhnke (2017) suggest that KAMs reports may have unintended “real effects” on auditors' behavior. The analysis results imply that reporting an accounting estimate as a KAM may affect the actual financial reporting accounting estimate. Gold et al. (2020) also indicate that the KAMs report makes managers' decisions more carefully compared to the absence of KAMs reports. These results imply that KAMs reports restrict the manager's discretionary accounting decisions suggesting higher earnings quality. An empirical analysis of the relationship between KAMs disclosure and financial indicators using Japanese samples will be shown in another study. This study shows just the correlation between the KAMs reports and financial indicators and expects a significant relationship between bad performance and active disclosing KAMs because highly profitable firms tend not to disclose KAMs (Pinto and Morais, 2019).

##### **1. Sample selections**

The financial data are obtained from the NEEDS-FinancialQUEST databases. Financial business firms, such as banks, securities, insurance, and other financial firms, are excluded because they have a substantially different financial reporting

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9) Prasad and Chand (2017) suggest that current audit report reforms have important information value for users, but the impact on audit quality is unclear. This change may increase audit costs and increase auditor liability. Therefore, careful judgment is required as to whether an increase in audit fees is necessarily related to an improvement in the quality of audits.

framework. Further, observations with fiscal periods not equal to 12 months are excluded. The sample data are eliminated at the upper and lower 1% levels for The change of net income ( $\Delta NI$ ) and net income divided by the total assets of the beginning of the fiscal year ( $NI$ ) considering the impact of COVID-19, and any observations with missing data are deleted. Eventually, the sample for this additional analysis consists of 2,747 firms' KAMs observations adopting J-GAAP because operating income without extraordinary gains and losses and ordinary income are not available under the IFRS.

## 2. Descriptive statistics

Table 8 displays the descriptive statistics for each Big4 and Non-Big4 audit firm, including the variables and financial indicators, their mean, median, standard

**Table 8: Descriptive statistics of financial indicators and KAMs**

All samples (2,747)				
Variable	Mean	S.D.	Minimum	Maximum
<i>KAM</i>	1.258	0.503	1	4
<i>WORD</i>	1,233	722	326	7,380
<i>TA</i> (million JPY)	349,844	2,110,063	277	62,000,000
<i>SEG</i>	4.498	2.637	1	17
$\Delta SALES$	−0.028	0.222	−0.950	3.028
$\Delta NI$	−0.084	2.573	−17.46	19.63
<i>INVENT</i>	0.111	0.128	0.000	1.551
<i>FIXED</i>	0.422	0.217	0.000	2.667
<i>DTA</i>	0.015	0.018	0.000	0.159
<i>DEBT</i>	0.491	0.243	0.000	3.032
<i>SALES</i>	1.057	0.679	0.001	6.832
<i>OPIN</i>	0.046	0.103	−1.058	0.835
<i>ORIN</i>	0.051	0.103	−1.123	0.778
<i>NSPI</i>	0.012	0.029	0	0.418
<i>IM</i>	0.006	0.021	0	0.333
<i>NI</i>	0.026	0.097	−1.147	0.748

**Table 8: Continuation of the table**

Big4 sample (1,907)				
Variable	Mean	S.D.	Minimum	Maximum
<i>KAM</i>	1.261	0.514	1	4
<i>WORD</i>	1,331	750	408	7,380
<i>TA</i> (million JPY)	473,167	2,504,947	515	62,000,000
<i>SEG</i>	4.565	2.663	1	17
$\Delta SALES$	−0.027	0.199	−0.950	1.889
$\Delta NI$	−0.073	2.559	−17.46	19.63
<i>INVENT</i>	0.107	0.117	0.000	1.393
<i>FIXED</i>	0.432	0.219	0.000	2.667
<i>DTA</i>	0.016	0.019	0.000	0.158
<i>DEBT</i>	0.483	0.221	0.000	2.065
<i>SALES</i>	1.046	0.666	0.002	6.832
<i>OPIN</i>	0.052	0.100	−1.058	0.785
<i>ORIN</i>	0.057	0.101	−1.123	0.778
<i>NSPI</i>	0.010	0.024	0	0.351
<i>IM</i>	0.005	0.017	0	0.192
<i>NI</i>	0.031	0.091	−1.147	0.719

  

Non-Big4 sample (840)				
Variable	Mean	S.D.	Minimum	Maximum
<i>KAM</i>	1.252	0.479	1	4
<i>WORD</i>	1,001	600	326	7,126
<i>TA</i> (million JPY)	69,872	452,321	277	12,000,000
<i>SEG</i>	4.345	2.572	1	13
$\Delta SALES$	−0.028	0.268	−0.925	3.028
$\Delta NI$	−0.106	2.607	−16.88	17.17
<i>INVENT</i>	0.123	0.149	0.000	1.551
<i>FIXED</i>	0.399	0.211	0.008	1.140
<i>DTA</i>	0.013	0.017	0.000	0.159
<i>DEBT</i>	0.510	0.287	0.000	3.032
<i>SALES</i>	1.082	0.707	0.001	5.840
<i>OPIN</i>	0.033	0.109	−0.743	0.835
<i>ORIN</i>	0.038	0.106	−0.630	0.764
<i>NSPI</i>	0.016	0.039	0	0.418
<i>IM</i>	0.008	0.027	0	0.333
<i>NI</i>	0.014	0.110	−0.849	0.748

deviation, minimum, and maximum. The scale of clients and earnings performance of the Big4 audit firms are significantly larger than those of Non-Big4 clients. All variables, except for the rate of change and the level of total assets, are standardised by the prior year's total assets.  $\Delta SALES$  (the change in sales) and  $\Delta NI$  (the change in net income) are negative, on average, in all samples because of the COVID-19 impact. The mean of the number of reported KAMs is not significantly different for the Big4 and Non-Big4 audit firms, but the mean description amount of reported KAMs is much greater for the Big4 than the Non-Big4. This result suggests the unique relationship in Japan, in which bad-performed clients tend to disclose inactive KAMs information under the Non-Big4 audit while previous studies have shown that the worse the performance situation tends to have the greater the amount of KAM disclosure (Limaporn et al., 2019; Suttipun and Swatdikun, 2021). This study investigates the correlation between disclosed KAMs and financial indicators using these variables below:

where:

$KAM$  = The number of reported KAMs in 2021

$WORD$  = The total word count of the total reported KAMs in 2021

$TA$  (million JPY) = Total assets in 2021

$SEG$  = The number of segments

$\Delta SALES$  = Change in sales calculated as (sales in 2021 – sales in 2020) / sales in 2020

$\Delta NI$  = The change of net income calculated as (net income in 2021 – net income in 2020) / net income in 2020

$INVENT$  = Inventory divided by total assets in 2020 (the same applies hereafter)

$FIXED$  = Fixed assets divided by total assets in 2020

$DTA$  = Deferred tax assets divided by total assets in 2020

*DEBT* = Total debt (liabilities) divided by total assets in 2020

*SALES* = Sales divided by total assets in 2020

*OPIN* = Operating income divided by total assets in 2020

*ORIN* = Ordinary income divided by total assets in 2020

*NSPI* = Negative special items divided by total assets in 2020

*IM* = Impairment losses divided by total assets in 2020

and *NI* = Net income divided by total assets in 2020.

### 3. Correlations between the financial indicators and KAMs disclosure

Table 9 displays the correlations between the financial indicators and KAMs disclosure. Focusing on the sign of the correlation regarding the relationship between reported KAMs and financial indicators, the number of reported KAMs (or description amount) is expected to be related to the monetary amount of the target assets and liabilities of KAMs except for inventories, and the negative financial impact (such as a decrease in sales and income). Such a correlation is consistent with the ranking mentioned for KAMs topics and can suggest the usefulness of KAMs as information providers.<sup>10)</sup> Focusing on the difference in the scale of audit firms, the Big4 sample group has a stronger correlation between financial indicators and KAM reports than This result may reflect the size of the audit firm influences the quality of disclosure of KAMs.

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10) However, according to Kitiwong and Sarapaivanich (2020), the number of disclosed KAMs and the most common type of disclosed KAMs are reported to have nothing to do with the quality of the audit.

**Table 9: Correlations between the financial indicators and KAMs disclosure**

Variables	All samples		Big4 sample		Non-big4 sample	
	KAM	Word	KAM	Word	KAM	Word
Total assets	***0.213 (0.000)	***0.264 (0.000)	***0.242 (0.000)	***0.279 (0.000)	***0.116 (0.001)	***0.14 (0.001)
Segment	***0.149 (0.000)	***0.198 (0.000)	***0.159 (0.000)	***0.216 (0.000)	***0.116 (0.001)	***0.138 (0.001)
Δ Sales	***-0.102 (0.000)	***-0.104 (0.000)	***-0.136 (0.000)	***-0.145 (0.000)	-0.041 (0.246)	-0.029 (0.402)
Δ Net income	***-0.082 (0.000)	***-0.077 (0.000)	***-0.11 (0.000)	***-0.102 (0.000)	-0.035 (0.322)	-0.019 (0.592)
Inventory	**0.047 (0.014)	-0.022 (0.258)	***0.065 (0.005)	-0.006 (0.8026)	0.013 (0.714)	-0.029 (0.404)
Fixed Assets	***0.1314 (0.000)	***0.171 (0.000)	***0.156 (0.000)	***0.186 (0.000)	**0.083 (0.017)	**0.099 (0.005)
Deferred Tax Assets	**0.089 (0.000)	***0.083 (0.000)	***0.086 (0.000)	***0.086 (0.000)	0.029 (0.399)	-0.019 (0.579)
Liabilities	***0.024 (0.000)	***0.028 (0.000)	***0.205 (0.000)	***0.239 (0.000)	***0.107 (0.002)	**0.075 (0.033)
Sales	***-0.105 (0.000)	***-0.094 (0.000)	***-0.131 (0.000)	***-0.122 (0.000)	-0.045 (0.197)	-0.021 (0.542)
Operating Income	***-0.131 (0.000)	***-0.113 (0.000)	***-0.141 (0.000)	***-0.162 (0.000)	***-0.131 (0.001)	***-0.0614 (0.078)
Ordinary Income	***-0.133 (0.000)	***-0.113 (0.000)	***-0.14 (0.000)	***-0.162 (0.000)	***-0.112 (0.001)	-0.048 (0.173)
Negative Special Items	**0.104 (0.000)	***0.079 (0.000)	***0.092 (0.000)	***0.111 (0.000)	**0.113 (0.001)	0.053 (0.131)
Impairment	***0.074 (0.001)	***0.075 (0.001)	**0.063 (0.006)	***0.108 (0.000)	***0.095 (0.006)	0.036 (0.299)
Net income	***-0.127 (0.000)	***-0.104 (0.000)	***-0.122 (0.000)	***-0.144 (0.000)	***-0.144 (0.000)	**-0.068 (0.050)

## **V. Findings and Summary**

The KAMs system was officially introduced in 2021 in Japan in line with the global trend to reform the less informative value of traditional standardized audit reports form. Compared to other countries that have introduced KAMs in advance, the actual situation and its effects of introducing KAMs in Japan are still unclear and the results have not been published internationally. This survey aims to clarify the status of the KAMs report in Japan, using fundamental analysis and descriptive statistics, as an early investigation. Note that this survey is intended to be used for future empirical analysis of the relationship between the determinant KAMs reports and corporate governance. Thus, it might contain a different perspective from the normal survey. As a result of this investigation, the following conclusions are drawn.

Firstly, the number of KAMs issues is greatly smaller than in other countries. A bunch of firms discloses a single topic or two, which could reflect the inactive disclosure of audit practice in Japan compared to other countries. This tendency is not significantly different from the audit scale. Contrary to the number of KAMs reports, there is a significant difference between the Big4 and Non-Big4 audit firms regarding the word count of KAMs, which is not highlighted in previous international studies. As the relationship with the financial data, there are significant differences in the number of descriptions of KAMs regarding the scale of clients and the number of segments. Therefore, the difference in the scale of the audit firm explains the difference in the amount of description. While prior studies mentioned above indicate the relationship between the large word count and poor performance, this study shed light on the relationship between word count and the scale of the audit firm in Japan.

Secondly, regarding KAMs topics, the fixed assets related to impairment and

valuation are ranked high among the accounting estimate items because of the large amount and impact of financial statements. There is also a tendency to have a large number of topics related to revenue recognition, in response to the practical complexity and importance of financial indicators. In particular, IFRS 15 has just been applied in Japan as a domestic accounting standard, so strict audits are often required for revenue recognition. Valuation of investment accounts is also ranked high because it often involves the determination of an equity-method affiliate's impairment recognition and requires a large number of estimates in the valuation process. In general, items with a high risk of material misstatement are selected as KAMs, which is not much different from other countries. This suggests that the KAMs topics covered by the auditor can be very helpful in addressing audit expectations gaps and issues presented by KAM's audit reports. However, accounting estimates with the auditor-reported KAMs related to accounting estimates do not always improve the value of the reported revenue and the predictive relevance (Lau, 2021). As companies frequently report KAMs on accounting estimates, more research needs to be accumulated on under what conditions make them useful information to supplement the predicted value. On the contrary to the frequent topics above, some firm-specific topics have also been observed, showing that the value of such unique information is a notable result of the introduction of the KAMs system. The company-specific disclosure is consistent with the intent of ISA 701 because one of the goals of ISA 701 is to highlight the company-specific issues that occurred in the audit process to provide pertinent information to the financial statement users (Norazura and Amanuddin, 2018). In this study, the impairment loss of fixed assets, which is one of the most significant even, are classified into cases in which impairment loss is recognized and unrecognized. This classification will make it possible to verify whether informational value regarding the prediction of future

occurrence of impairment losses is provided to financial statement users. Since such a classification has not been shown in previous studies, it can also contribute to studies on impairment losses in the future.

Thirdly, this study examines the rate of increase or decrease in audit fees in 2021 and 2022, considering that applying KAMs will increase the amount of audit work and may increase audit fees. The mean of the change in audit fees from 2021 to 2022 is positive in all samples, indicating that the increase in audit fees is due to the application of KAMs in Japan. Comparing the scale of audit firms, the Big4 sample shows increasing at an average rate is higher than the Non-Big4 sample, and the difference between the two is significant. Additionally, the result that the ratio of unchanged audit fees in Non-Big4 is quite higher than that of Big4 implies a higher sensitivity of audit fees in the Big4 due to the implementation of the KAMs system. The weak upward trend in audit fees before and after the introduction of KAMs by small and medium-sized audit firms may reflect other issues related to audit fees in Japan. The correlation between the rate of change in audit fees and the number (and volume) of KAMs topics shows that there is no significant correlation between changes in audit fees and the number (and volume) of KAMs topics in all samples. However, if split the sample into Big4 audit firms and Non-Big4, there is a significant correlation between the change in audit fees and the number of KAMs issues in the Big4 sample. Non-Big4 sample does not have such a relationship (not significant, but rather negatively correlated). Considering the tendency of disclosed KAMs under the Non-Big4 sample, the insignificant change of audit fees before and after the introduction of KAMs may be related to the number of contents of KAMs and the small amount of explanation.

Lastly, most disclosed KAMs topics are closely related to accounting estimates, revenue recognition, and other important accounting transactions. The fact that it is

chosen as a KAM topic by auditors means that there might be important points to keep in mind when users use financial statements to forecast future cash flows. Therefore, it is of great significance to investigate the relationship between KAMs disclosure and financial position. According to the descriptive statistics, the scale of clients and earnings performance of the Big4 audit firms are significantly bigger and better than those of Non-Big4 clients. The mean of the number of reported KAMs is not significantly different for the Big4 and Non-Big4 audit firms, but the mean description amount of reported KAMs is much greater for the Big4 than the Non-Big4. This result suggests the unique relationship in Japan, in which bad-performed clients tend to disclose inactive KAMs information under the Non-Big4 audit while previous studies have shown that the worse the performance situation tends to have the greater the amount of KAM disclosure. The correlation between the reported KAMs and financial indicators is generally relevant. Focusing on the sign of the coefficient, the result suggests an expected relationship, indicating that KAMs disclosure tends to depend on the related accounting balance and performance. These results imply the usefulness of KAMs as an information provider in the disclosure system. Regarding the correlation between financial indicators and disclosed KAMs, the Non-Big4 KAMs reports should be more strong correlations with financial indicators considering the difference in the performance of the Big4 and Non-Big4 clients. However, the results show that the Big4 sample group has a stronger correlation between financial indicators and KAMs reports than the Non-Big4. This result may reflect the size of the audit firm influences the quality of disclosure of KAMs.

The purpose of this study is to offer early evidence of disclosing KAMs in Japan by providing descriptive statistics and basic analysis. Especially, this survey reveals that KAMs disclosure trends differed in many respects depending on the scales of

audit firms. As the KAMs disclosure standards have recently been implemented in Japan, it will not be clear without more cases and samples. This survey will contribute to the academic discussion of the international audit system by disclosing the results of earlier analyses.

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