

Value of block tagged information

Analysis of Key Audit Matter in XBRL from Japan

27th Eurofiling Workshop

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Revathy Ramanan

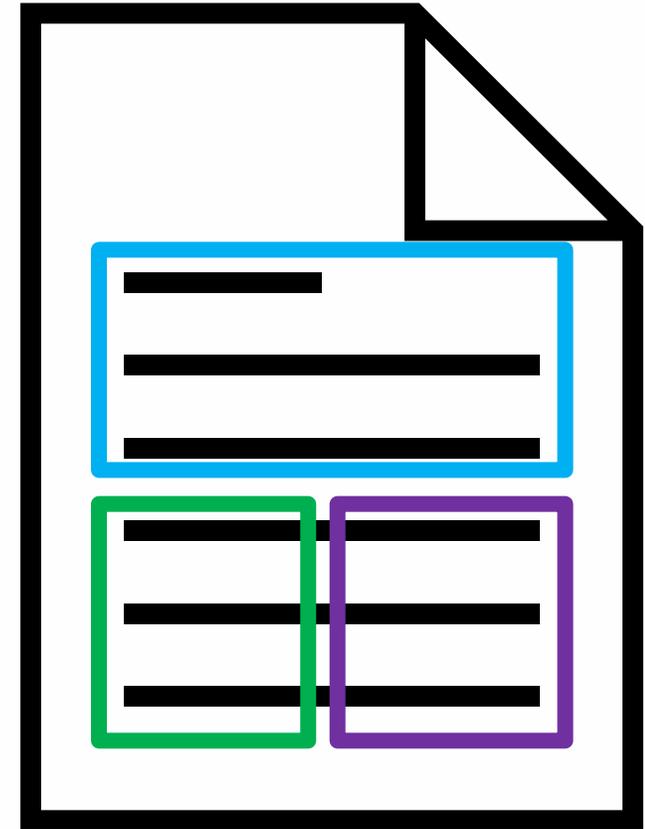
Guidance Manager, XBRL International

Director, XBRL India

Block tagged information

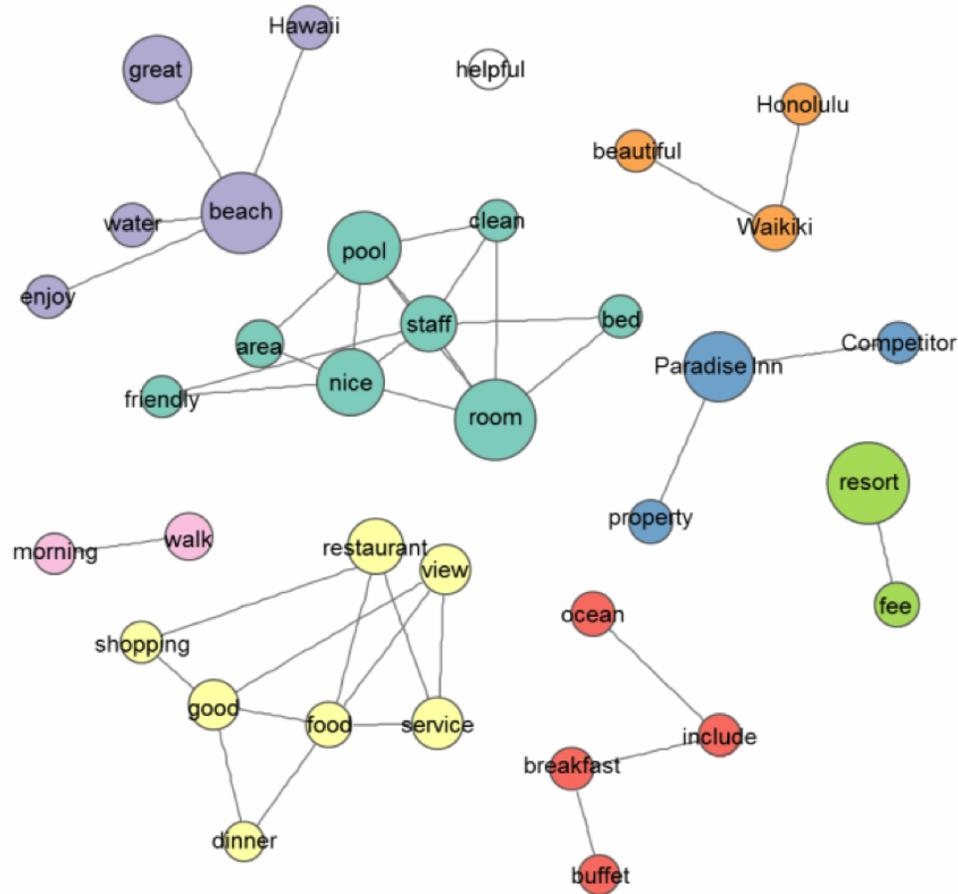
How to analyse narrative disclosure?

- Block tag – Entire section of a report is tagged as a single block.
 - The tag may include text, numerical values, tables and other data.
- Typically include narrative disclosure
 - Accounting policy, audit report
- Conventional analysis was restricted to numbers in the financial report
- Analysing the narrative data?



#TextAnalytics

Promising!

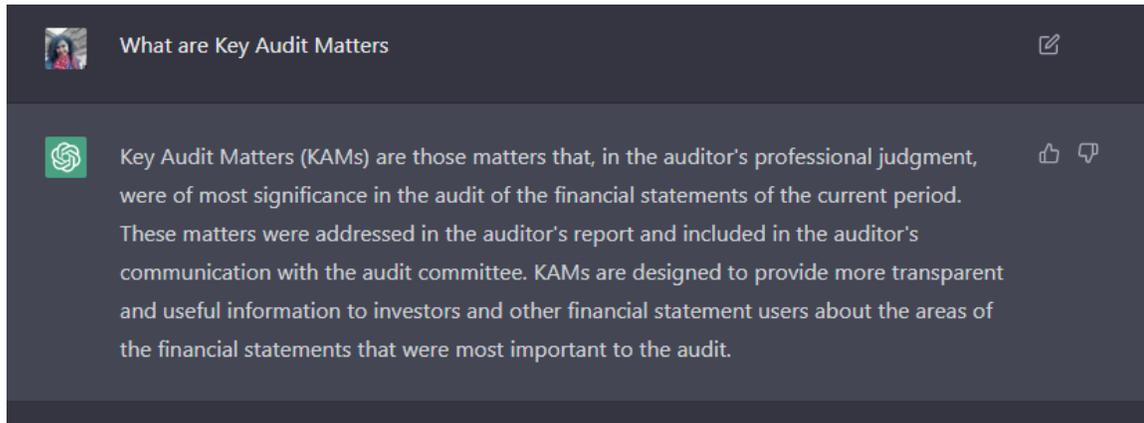


- Traction for Text mining, analytics
- Increase in availability of tool sets
- Narrative Disclosures to be put it to analytical use

Source Article - <https://uxmag.com/articles/text-analytics-for-everyone>

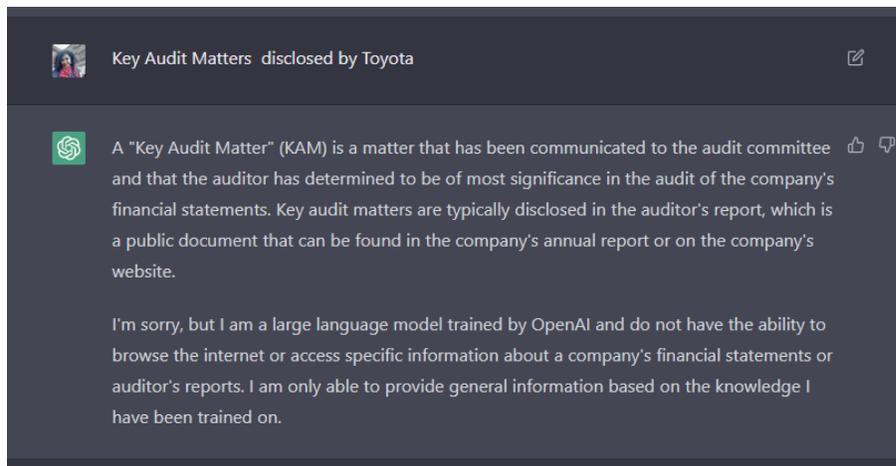
Text Analytics

XBRL helps to train model



What are Key Audit Matters

Key Audit Matters (KAMs) are those matters that, in the auditor's professional judgment, were of most significance in the audit of the financial statements of the current period. These matters were addressed in the auditor's report and included in the auditor's communication with the audit committee. KAMs are designed to provide more transparent and useful information to investors and other financial statement users about the areas of the financial statements that were most important to the audit.



Key Audit Matters disclosed by Toyota

A "Key Audit Matter" (KAM) is a matter that has been communicated to the audit committee and that the auditor has determined to be of most significance in the audit of the company's financial statements. Key audit matters are typically disclosed in the auditor's report, which is a public document that can be found in the company's annual report or on the company's website.

I'm sorry, but I am a large language model trained by OpenAI and do not have the ability to browse the internet or access specific information about a company's financial statements or auditor's reports. I am only able to provide general information based on the knowledge I have been trained on.

- An interesting example of what machines can do when trained properly (#Chat GPT)
- XBRL tagging greatly help tools like these train on company financials and disclosures

Japanese Key Audit Matters

New tagging requirement

- KAMs - areas most important to an Audit
- JFSA and JICPA worked to require mandatory tagging of KAM disclosures inside the audit reports from the fiscal 2021 for public companies
- We thought it might be worth looking at that data with a text analytics lens



KAMs are narrative heavy!

Narrative block:
Key audit matters [text block]

For each KAM:
Heading

For each KAM:
KAM Description

Additional Info:
Audit Firms and
CPA details

Data Analysis:
5,500 KAMs from around 2,400
annual reports for the fiscal year
ending in 2021

Key audit considerations	
<p>Key audit matters are those matters that the auditor, as a professional, determined were of particular importance in the audit of the consolidated financial statements for the current fiscal year. The primary audit matters are the matters addressed in the audit process and the formation of the audit opinion on the consolidated financial statements as a whole, and we do not express an individual opinion on such matters.</p>	
<p>Calculation of allowance for doubtful accounts</p> <p>(Notes) Important matters that form the basis for the preparation of consolidated financial statements 4. Matters concerning accounting policies (5) Recording standards for allowance for doubtful accounts (reference)</p>	
of key audit considerations Content and reason for decision	Audit response
<p>As of March 31, 2021, The Tohoku Bank, Ltd.'s consolidated financial statements include an allowance for doubtful accounts of ¥3.1 billion.</p> <p>The allowance for doubtful accounts is calculated in accordance with internal asset self-assessment standards and write-off reserve standards. The calculation process includes a self-assessment determined by evaluating the ability of borrowers to repay their debts, etc., as well as calculating the expected loss rate by adding necessary adjustments after calculating the actual loan loss rate based on past performance. includes an estimate of</p> <p>Self-assessment involves not only the evaluation of the borrower's ability to redeem debt based on past performance, but also the future business plans of the borrower, so the evaluation involves the subjective judgment of the management. In addition, even a minor error in the calculation of the actual loan loss rate may have a significant monetary impact due to the large balance of loans and bills discounted subject to the allowance. Necessary adjustments to the rate take into account future changes in the business environment outside the bank, and thus involve the subjective judgment of management.</p> <p>There is a risk that the allowance for doubtful accounts and provision of allowance for doubtful accounts may not be calculated appropriately if management's judgment regarding the assessment of borrowers' debt redemption capacity and the calculation of the expected loss rate are not appropriate. . Therefore, considering the adequacy of management's judgment and calculation of expected loss rates is a key audit matter for us.</p>	<p>We have evaluated the effectiveness of internal controls related to the calculation of allowance for doubtful accounts, including self-assessment and calculation of expected loss ratios.</p> <p>Regarding the self-assessment of borrowers, for which misclassification of borrowers is considered to have a material impact on the allowance for loan losses, Or, if there is an ongoing business plan, the adequacy of the evaluation of its feasibility, the adequacy of management's evaluation of progress, and a comprehensive list of borrowers, including those that serve as the basis for determining the debtor classification. critically examined the appropriateness of management's assessment of the ability to repay the debt.</p> <p>Regarding the calculation of the expected loss rate, we examined the completeness of the historical population and the past loss data that serve as the basis for the calculation of the actual loan loss rate, and the accuracy of the calculation. In addition, we critically examined whether it was necessary to make corrections to the actual bad debt rate and the grounds for doing so, in light of the business environment outside the bank.</p>

Granular tagging:
Every KAM reported

Calculation of deferred tax assets (Notes) Tax effect accounting (reference)	
of key audit considerations Content and reason for decision	Audit response
<p>As of March 31, 2021, The Tohoku Bank, Ltd.'s consolidated financial statements include deferred tax assets of ¥0.4 billion.</p> <p>Deferred tax assets are recorded for future deductible temporary differences that are schedulable within the scope of future taxable income estimated in accordance with tax effect accounting standards. Estimating taxable income and scheduling deductible temporary differences involve management's assumptions about future events. high degree of judgment.</p> <p>If management's judgment regarding the material assumptions related to the estimation of taxable income and the scheduling of deductible temporary differences is not appropriate, there is a risk that deferred tax assets and income tax adjustments may not be determined appropriately as a result. Therefore, considering the significant assumptions and management judgments involved in making this estimate is a key audit matter for us.</p>	<p>We have evaluated the effectiveness of internal controls over estimating taxable income and scheduling deductible temporary differences. In addition, regarding the estimated taxable income, we will examine the consistency with the management plan that will be prepared separately and conduct backtesting of the estimated taxable income in the previous fiscal year and the validity of the estimated taxable income in the following fiscal year and beyond. Critically examined sexuality. Regarding the grounds for scheduling future deductible temporary differences, we obtained questions and supporting materials, and critically examined their validity.</p> <p>In particular, regarding the scheduling of future deductible temporary differences in individual allowances for possible loan losses that have been amortized with tax, we will obtain supporting materials for each obligor that is quantitatively important, and will make important assumptions about the appropriateness of scheduling. Critically examined the consistency and appropriateness of management's judgment. Other obligors were also questioned to determine the appropriateness of scheduling. In addition, we back-tested the deductible temporary differences related to taxable and amortized specific loan loss reserves scheduled for the current year.</p>

For each KAM:
Auditor's response

Please Note

Limitations

- We are not auditors.
- This is an initial set of analytical research. We really need to emphasise that it is preliminary – indeed experimental
- Some known data quality issues (it's new)
- One year of data thus far so there is no temporal analysis capability yet
- We've used Google Translate Only, So Please Assume It's Wrong



Findings

1. Trends and outliers
 2. Boilerplate evidence
 3. Granular Narratives are Helpful
-

Broad Themes

Start simple

- Simple text clustering of short descriptions across an entire population is helpful (and tells you something about overall audit and economic trends).
- But it is too high level to tell you all that much.



Industry Trends and Outliers

Segment the data



Entity	Industry	Outlying entity-specific KAM	Common industry-specific KAMs
1	Air Transportation	Validity of management's judgment as to whether or not there is significant uncertainty regarding the going concern assumption	assets validity, fixed assets, recognition validity, impairment loss, periodic maintenance, recognizing impairment, revenue recognition, cost validity, business validity, recording periodic
2	Oil & Coal Products	Estimate of repair allowance	deferred tax, tax assets, petroleum product, distribution cost, cost recovery, nsrp valuation, impairment loss, product refining, product distribution, assets evaluation
3	Real Estate	Evaluation of IT control associated with the replacement of business processing systems related to operating revenue transactions	real estate, evaluation, real, estate, sale evaluation, estate sales, sale, business evaluation, sales business, revenue recognition
4	Pharmaceutical	Provisions and contingent obligations related to patents, etc.	assets, fixed assets, valuation, tax assets, validity, assets related, intangible assets, assets validity, impairment loss, related

Industry segmentation tells you more.

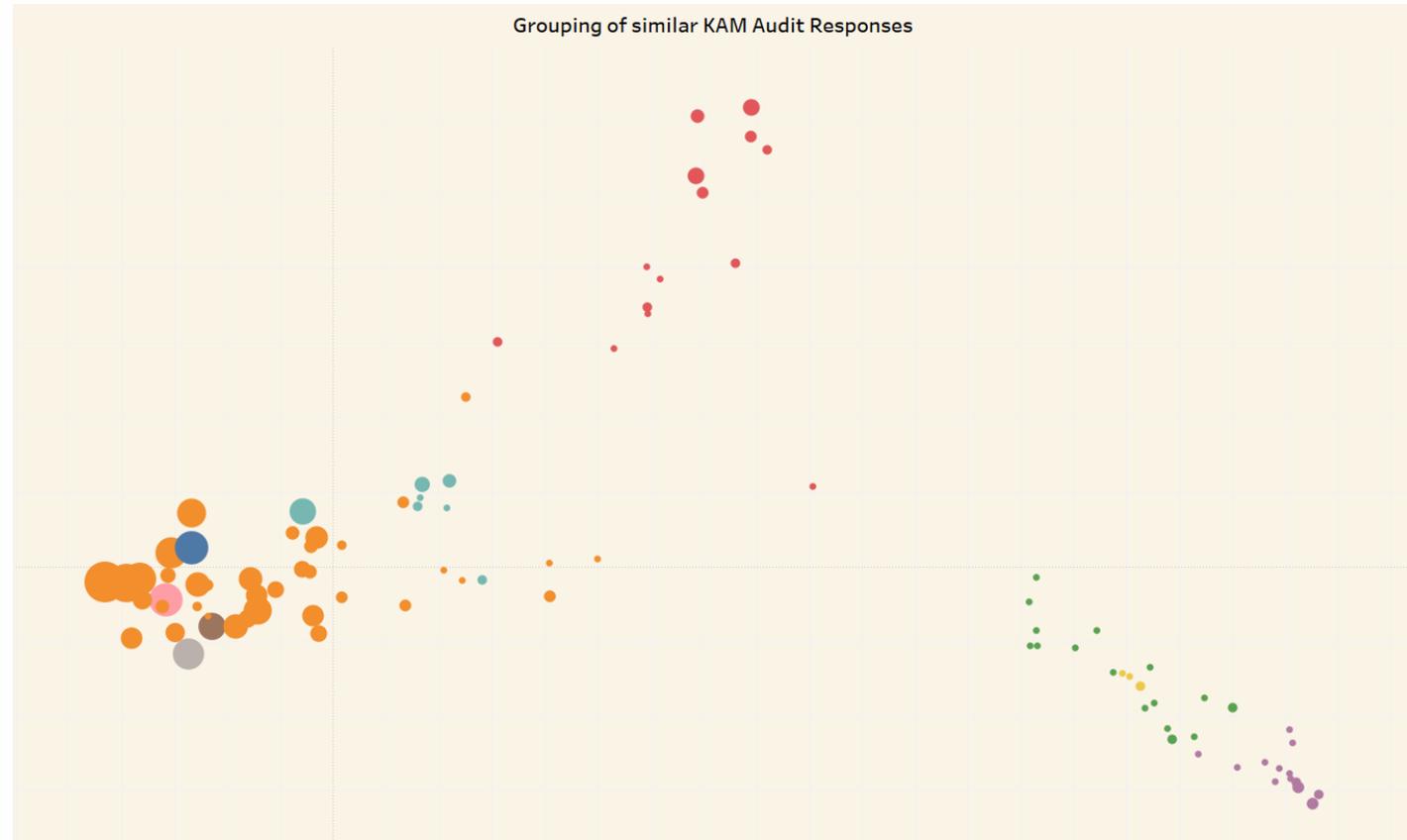
- To understand the overall trends within an industry.
- Conversely to understand the outliers within an industry.



Boilerplate evidence

A concern? An expectation?

- Somewhat unsurprisingly, looking across industries, there is another factor at play within the KAMs – rather standardised text in evidence within audit firm groupings.
- In this case the text being looked at is “Auditor Response to KAM”. Around 20% of responses were 90% identical – and 80% of similar responses were from the same firm.
- (This uses cosine similarity and PCA plots)



Narrative analysis is complex

Straightforward analytic shortcut turns out to be: have shorter, more granular tags

Top 10 KAM keywords for Banks	
Specific tag <i>ShortDescriptionKAM</i>	Textblock <i>KeyAuditMattersConsolidatedTextBlock</i>
Keyword	Keyword
Score	Score
doubtful accounts 0.00053044	audit corporation 0.00000732
allowance 0.00132727	audit considerations 0.00003044
debtor classification 0.00149088	audit 0.00003579
doubtful 0.00210439	debtor classification 0.00004173
accounts calculation 0.00228514	consolidated financial 0.00006779
accounts 0.00234436	main audit 0.00007458
debtor 0.00263957	debtor 0.00007598
calculation 0.00332411	doubtful accounts 0.00008721
loans 0.00362468	financial statements 0.00011192
debtor category 0.00369896	corporation 0.00016733

The lower the score in the list, the more relevant the keyword is
The scores cannot be compared across the two lists
Keyword extractor - YAKE

- Examining the text blocks using (untrained) text analytic ML techniques is relatively unhelpful.
- Having a summary or “short description” tag turns out to be very helpful! (And easy, as keyword extraction technique is straightforward)
- Over time, we will start to experiment with training mechanisms to see what else can be discovered in this manner.

So – what does this tell us?

Conclusions

- First – tagging KAMs provides a very helpful basis for overall analysis.
- Identifying industry trends and particularly industry outliers will have regulatory utility
- These techniques should have policy utility too – examining extent to which specific disclosure rules are applied (or not!), and evidence of trends such as boilerplating.
- Even quite simple text analytic approaches are useful, but we expect much more can be done, using more advanced techniques, more familiar data and (in particular) when we can look at entity-specific behaviours over time.

- Just a beginning!

- Applicability to other text block disclosures.

- We hope, food for thought.

Questions and Discussion!

- Sincere thanks to XBRL Japan for their work to extract the data.
- EDINET has APIs for KAM data extraction
- JICPA is working on additional guidance and quality rules.
- Blog Series - [Insights from Japan's Digitally Tagged KAMs](#)



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