



MALAYSIAN INSTITUTE
OF ACCOUNTANTS

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International Federation of Accountants
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Dear Matt

**INTERNATIONAL AUDITING AND ASSURANCE STANDARDS BOARD ("IAASB")
REQUEST FOR INPUT, EXPLORING THE GROWING USE OF TECHNOLOGY IN THE
AUDIT, WITH A FOCUS ON DATA ANALYTICS**

The Auditing and Assurance Standards Board ("AASB") of the Malaysian Institute of Accountants ("MIA or the Institute") welcomes the opportunity to provide its comments on the International Auditing and Assurance Standards Board's ("IAASB's") request for input ("RFI"), *Exploring the Growing Use of Technology in the Audit, with a Focus on Data Analytics*.

The AASB is supportive of the IAASB's initiative to further understand how the use of technology, specifically data analytics can improve the effectiveness and efficiency of financial statement audits. As technology continues to evolve, businesses change their strategies and the way they operate. Auditing standards will need to be reviewed and revised to incorporate the use of technology-enabled audit data analytics in the audit of financial statements.

Our comments to the questions in the request for input are as follows:

- (a) Have we considered all circumstances and factors that exist in the current business environment that impact the use of data analytics in a financial statement audit?**

The AASB agrees with the identified circumstances and factors that exist in the current business environment that impact the use of data analytics in a financial statement audit.

Comments (Continued.)

The AASB wish to highlight other circumstances and factors that exist for IAASB's consideration:

- i. *Data acquisition from intermediary systems (e.g. data warehouses or data repositories)*
 - Minimum IT general controls would need to be effective over key systems for auditors to be able to rely on key data sets for analytics purpose. Voluminous data is often not obtainable from live transactional systems due to sizing and capacity of these systems (*and data for the entire year may not be available in these transactional systems*). In the event data is required to be extracted from intermediary systems, the auditor needs to consider additional procedures to determine the completeness and reliability of these data sets.
 - These intermediary systems such as data warehouses or data repositories are often not in financial audit scope. Therefore, if auditors have to extend their IT general controls procedures (*refer paragraphs 19(a) and 19(b) of the RFI*) over these additional systems, this may lead to increased audit efforts rather than resulting in audit efficiencies.
- ii. *Availability of full population of data for auditors' analysis*
 - If the auditor decides to use data analytics in an audit, the auditor needs to consider the client's ability and willingness to provide the full population of data for the period of review specifically if data is also required to be extracted from intermediary systems. Given these potential restrictions, guidance on matters to be considered if the auditor plans to use data analytics in the audit would be helpful.
- iii. *Data availability and data quality*
 - When planning or scoping for data analytics work to support a financial statement audit, the engagement team will need to define the data sets and data fields that is required to be extracted from clients' systems. As part of this scoping exercise, the engagement team will need to consider the availability of key data elements that is available in the clients' source systems. The required information may not be captured as a "data point" in the system, thereby resulting in data gaps concerns.
 - With regards to data quality, data quality concerns can sometimes be defined as data redundancies (i.e. same data points captured across various systems), data inconsistencies (i.e. same data points but different values captured in different systems), missing data (i.e. the data field is blank) and un-harmonised data (i.e. same data being defined different across different systems and therefore it cannot co-relate with each other).

Comments (Continued.)

- The audit data analytics software will not produce the desired results if the data entering the clients' systems are not reliable and accurate. At the commencement of engagement, engagement team should consider what procedures can be performed to assess the quality of data on client's systems prior to embarking the use of data analytics in a financial statement audit. The standards should provide guidance on the type of procedures which can be performed to assist auditors in assessing the quality of client's data.
- Complex business environments and globalisation may require data to be obtained and extracted from multiple geo-political locations. Some countries for instance may have regulatory restrictions over data leaving their respective countries. These restrictions may affect the auditors ability to obtain relevant and required data to perform data analytics particularly for group or multi-location audits. Therefore the standards should address the challenges faced by group or multi-location auditors in bringing all the relevant data and analytics together.

iv. *Third party managed client systems*

- In client environments where the key systems are managed wholly by third party vendors, some challenges may arise. For example, vendor service-level agreements ("SLAs") may not permit auditors to request for data sets to be extracted by vendors on behalf of contracting organisations.
- Some client data may be maintained by outsourced vendors. These vendors may employ their own IT technology or adopt cloud-based computing which are outside of the client of the auditors' jurisdiction or right to audit. The standards should address circumstances where there is a need to obtain the necessary third party assurance in order to place reliance over the reliability of the vendor-managed data to be used as audit evidence.

v. *Competency of client management (conceptual challenge)*

- As part of the audit scoping exercise, whilst the audit engagement team may define the data requirements for data analytics, if the client management does not possess the competency to extract the available data fields in their systems and rely on third party for the purpose, the standards should provide guidance on the procedures that may be adopted by the auditor to ascertain the completeness and reliability of the data.

vi. *Effectiveness depending on scale of client transactions*

- Due consideration should be given on the use of data analytics in the audit in relation to the size and volume of transactions of the client.

Comments (Continued.)

(b) Is our list of standard-setting challenges accurate and complete?

The AASB agrees with the identified list of standard-setting challenges.

The AASB's wish to highlight other potential challenges including possible solutions for IAASB's consideration and guidance sought:

i. *CAATs vs. data analytics* (Paragraph 13 of the RFI)

- The standards should clarify the differences between the use of Computer Assisted Audit Techniques (CAATs) as a form of audit testing procedure in comparison with data analytics being used in audit planning and obtaining audit evidence. CAATs adopts similar technology and have been applied on audit engagements prior to the growing use of data analytics in audits. Whilst traditionally used to automate audit procedures based on specific test objectives, CAATs are also used to provide the big data processing, planning and insight benefits from the use data analytics.

ii. *General IT controls* (Paragraph 19(a) of the RFI)

- The standards should provide clear guidance on the extent of minimal audit procedures needed to conclude on the reliability of underlying data. Whilst this section explains the need for minimum IT general controls which should be tested before the auditor is able to rely on the underlying data for data analytics, the standards currently do not address whether effective ITGCs alone would be sufficient or additional audit procedures are required.
- Auditor should assess the effectiveness of certain IT controls prior to relying on the accuracy and completeness of underlying system's data. The matters the audit may consider include the following:
 - Ability of users granted access to the database level to modify data directly at the table level.
 - Integrity in system logs (assuming this is being relied upon for the data analysis).
 - Quality of client's underlying data.
- If the auditor is using data analytics to provide substantive audit evidence, there is a need to (i) assess the effectiveness of key application controls which may impact the integrity of the underlying data; (ii) assess reliability of the manual controls over the input of transactions to gain comfort over the accuracy and existence/occurrence of the underlying data/transactions.

Comments (Continued.)

- In some circumstance, the data analytics may be performed off clients' servers and infrastructure due to size of data or other security concerns. In these instances, there is a need to consider procedures to be performed to assess the completeness of data, access controls over data modifications (given the client themselves may be administrators of those systems), and the level of documentation required if the data sets cannot be retained by the auditors.

iii. *Documentation requirements* (Paragraph 19(i) of the RFI)

- The standards should provide guidance over clients' data retention after the completion of a financial statement audit and meeting reperformance standards when data retrieval and recoverability may be challenged. Further, guidance over minimal documentation standards and procedures to balance clients' data retention risks, reperformance standards and proving the chain of custody would also be helpful.
- By convention, client's data should not be retained by auditors upon completion of the financial statement audit. The level of documentation on audit files should allow the team members to re-perform the data extractions from client's systems, i.e. document the sources of data including data fields required for the analysis, and the period of data obtained for the analytics. There are risks associated with retention of clients' data including security and privacy concerns, as well as controlling accessibility of the data sets across centralised/specialised team members who may support various client engagements at the same time.
- Whilst the above may help mitigate risks surrounding the clients' data confidentiality, it may pose a challenge to auditors meeting reperformance standards (or the requirements of ISA 230, *Audit Documentation*) in cases where the data may be purged by the clients' themselves, overwritten (e.g. if it's a "point-in-time" data) or significant challenges faced by auditors in restoring old data.
- In the event that the data needs to be retained by auditors on exceptional cases, the standards should provide guidance on minimum documentation, requirements or guidelines on proving the chain of custody surrounding the auditors' data retention policies and procedures to ensure their permissibility and function as acceptable audit evidence.
- The data scripts developed for the analytics should be retained on the audit file and can be considered to be re-used iteratively in future audits (contributing to audit efficiencies).

Comments (Continued.)

iv. *Competencies of data analytics specialist*

- There is no reference in the standards on the technical competencies required of data analytics specialists in relation to the coding/programming of the script or the use of software programming language selected. Reviewers of the data analytics results should possess the technical ability to perform quality review on the details of the scripts to ensure the data analytics output is accurate and reliable.

v. *Third party tools (Paragraph 19(j) of the RFI)*

- The standards are currently silent on the need to assess reliability of third party tools – e.g. how would the auditor assess reliability of Microsoft Excel? Is there a need to assess reliability of the tools if these are licensed by well-established software developers? The standards should provide some criteria or guidance over this assessment, for the auditor to ascertain if it is necessary to undertake procedures to assess the reliability of third party tools prior to their usage.
- To avoid potential “overconfidence” in technology, the principles from the standards ISA 620, *Using the Work of an Auditor's Expert* can be adopted where applicable to apply in assessing the reliability of third-party developed data analytics and tools.

vi. *Data analytics as audit evidence (Paragraph 19(e) & (f) of the RFI)*

- When underlying reliability of data can be established, the standards should provide clear guidance as to whether the results from data analytics can be regarded as audit evidence or merely a means to select relevant samples or planning purposes only. If results from data analytics can be used as audit evidence, the standards should provide guidance over additional pre-requisites and conditions after underlying reliability of data can be ascertained, i.e. what other audit procedures are required to be performed for the data analytics results to be used as audit evidence.
- One practical implementation issue for auditors would be how to extract quality audit evidence from the analyses, taking into consideration the quality of the underlying reliability of data. We recommend to provide guidance to auditor via staff publications to address this issue.

Comments (Continued.)

- vii. *Appropriate level of work effort for exceptions identified (Paragraph 19(g) of the RFI)*
- Due consideration need to be placed when data analytics resulted in exceptions/outliers which could be indicative of likelihood of potential misstatements, risk of fraud or both. When outliers or exceptions are detected, the standards should be clear as to whether auditors are given the option to view them from the risk of material misstatement only or include the need to dispose the risk of fraud. The level of work required would differ considerably as materiality does not apply when it comes to the risk of fraud.
- viii. *Considerations specific to auditors who perform audits of small-and medium-sized entities (SMEs) (Paragraphs 20-21 of the RFI) and considerations specific to small and medium practices (SMPs) (Paragraphs 22-23 of the RFI)*
- The higher the volume of transactions may warrant a greater leaning to adopt data analytics to obtain higher level of comfort and coverage. However the current standards are largely silent on the extent of audit coverage and evidence needed to commensurate an organisation's transaction volume. Consideration should be placed on whether substantive test of details using a manual testing procedure which may range around a few hundred samples would be sufficient to provide the same level of comfort as opposed to data analytics or CAATs. Notwithstanding this, the requirements of ISA 330, *The Auditor's Responses to Assessed Risks* continues to remain relevant in guiding the auditor to design appropriate response, and obtain sufficient audit evidence regarding the assessed risks of material misstatement identified.
- ix. *Level of accuracy using data analytics when detecting a material misstatement*
- An audit of financial statement is performed to detect a material misstatement of financial statement. With data analytics, what level of accuracy is required when audits are performed? Guidance on determining the level of accuracy when using data analytics would be helpful.
- x. *Using management's analytics as audit evidence*
- Where management uses analytics for its purposes, the standards should provide guidance over the type of pocedures which the auditor would need to perform in order to use these data analytics as audit evidence.
- (c) **To assist the DAWG in its ongoing work, what are your views on possible solutions to the standard-setting challenges?**

The AASB has considered this in part (b).

Comments (Continued.)

- (d) Is the DAWG's planned involvement in the IAASB projects currently underway appropriate?**

The DAWG's planned involvement in the IAASB projects currently underway, are appropriate.

- (e) Beyond those initiatives noted in the Additional Resources section of this publication, are there other initiatives of which we are not currently aware of that could further inform the DAWG's work?**

The AASB is not aware of any other initiatives.

- (f) In your view, what should the IAASB's and DAWG's next steps be? For example, actions the IAASB and DAWG are currently considering include:**

- (I.) Focusing attention on revisions, where appropriate, to ISAs affected by the IAASB's current projects.**
- (II.) Exploring revisions to ISA 520.**
- (III.) Hosting one or more conferences with interested stakeholders to collectively explore issues and possible solutions to the identified challenges.**
- (IV.) Continuing with outreach and exploration of issues associated with the use of data analytics in a financial statement audit, with a view towards a formal Discussion Paper consultation in advance of any formal standard-setting activities.**

The AASB believes changes in audit approach are needed to take advantage of the new environment. The IAASB and DAWG will need to work closely with key stakeholders, from the businesses they are auditing to the regulators and national standard-setters.

The AASB supports focusing on revisions, where appropriate, to ISAs affected by the IAASB's current projects. The AASB further encourage the IAASB and DAWG to continue to explore issues and possible solutions on the use of technology and data analytics in audits for auditing standards to remain fit in today's environment and be able to meet users' expectation.

Yours sincerely,

MALAYSIAN INSTITUTE OF ACCOUNTANTS



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