Learning from Expert:

A Textual Similarity and Topic Study of Expanded Auditor's Report in the United Kingdom

YAU, Ling Na Belinda

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Thesis Assessment Committee

Professor GU Zhaoyang (Chair)

Professor WU Donghui (Thesis Supervisor)

Professor CHIU Peng Chia (Thesis Co-supervisor)

Professor CAO Ying (Committee Member)

Professor TIAN Feng (External Examiner)



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Abstract

The new auditing standard, ISA (UK and Ireland) 700, which requires auditors to discuss risks of material misstatements (RMMs) in audit reports, has offered a great opportunity to examine how audit expertise may influence other auditors. Unlike past boilerplate audit reports which hardly distinguish outputs by audit experts and fellow auditors, RMMs are rich, contextual, and informative. Through the lens of textual analyses and learning pattern among auditors, this study aims to provide new evidence on this important issue.

In this paper, I use RMM textual similarity as well as RMM topic and audit work categorization to investigate how auditors may learn from industry audit experts. First, by focusing on textual similarity of RMM documentation in audit reports, I hypothesize and find that auditors do not only set up a firm-wide RMM reporting template to maintain similar reporting quality across firm, but they also learn from and follow industry audit expert's wordings to enhance reporting quality and credibility. Second, by manually categorizing RMM documentations into 25 RMM topics and further categorizing various audit work in response to some specific RMM topics, I find support that what auditors consider as significant risks and how auditors address the risks are also affected by auditor's own template as well as by audit expert. Third, additional tests reveal that fellow auditors do not blindly follow expert's wordings, RMM topic choice, or audit work choice. Smaller audit firms with fewer resources tend to follow experts more. Moreover, auditors selectively follow experts that are perceived to be of "higher quality," and they follow more when their clients are similar to those audited by experts along several audit risk dimension.

As for the consequences of maintaining an auditor's firm-wide template or/ and following expert, I find that auditors tend to charge higher audit fees and have shorter audit delay. Overall, this study provides some initial descriptive evidence on auditor's auditing and writing choice of RMMs and sheds light on how auditors may learn and benefit from RMM auditing and reporting of experts in the profession.



摘要

《國際審計準則(英國及愛爾蘭)700》作為一項新的審計準則,要求審計師於審計報告內討論 重大錯報風險(RMMs)。此準則提供了一個研究審計專業性將如何影響其他審計師的絕好機會。 有別於以往模板式的審計報告,RMMs 可以區分審計專家和一般審計師提供的審計報告,且更為 豐富、有深度,並可以提供更多信息。通過文本分析及探討審計師之間的學習模式,本研究將在 審計專家如何影響其他審計師方面提供新的證據。

在本論文中,我分別以 RMM 的文本相似度以及 RMM 主題和審計內容的類別來探討審計師怎樣向審計專家學習。首先,通過分析審計報告內的 RMM 的文本相似度,我假設並發現審計師不單會建立事務所層面的 RMM 報告模版以維持整個事務所的報告質量,他們亦會學習並效仿審計專家的用語以提升報告質量和可信性。其次,將 RMM 報告分類成 25 種 RMM 主題並再細分某些 RMM 主題的相關審計內容,我發現審計師對重大風險事項的認定以及其應對措施亦會受審計師本身所建立的模版和審計專家影響。但是,審計師並不會盲從審計專家的用語、RMM 主題、或審計內容。一般而言,小型且較少資源的審計事務所會更偏向學習審計專家。另外,審計師會選擇性地學習他們認為是「更優質」的審計專家。當審計客戶與審計專家的客戶存在更多共通的審計風險時,審計師亦會更偏向學習審計專家。

最後,我發現審計師可以通過建立事務所層面的模版並/或學習審計專家收取更高的審計費用和縮短審計用時。綜上,本研究提供了審計師對 RMM 的審計和報告事項的初步論據,亦闡述審計師如何透過向審計專家學習 RMM 的審計和報告技巧從而獲益。



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1. Introduction

There have been dramatic reforms in the boilerplate auditor's report model worldwide. The United Kingdom (UK) Financial Reporting Council (FRC) was the first regulator to issue a new audit standard: International Standard on Auditing (UK and Ireland) 700 "The independence auditor's report on financial statements" (hereafter "ISA (UK and Ireland) 700") in June 2013. The new standard requires auditors to include in audit report the risks of material misstatement ("RMMs") which have the greatest effect on the audit and how auditors address the risks (FRC 2013a). The International Auditing and Assurance Standards Board (IAASB) and the Public Company Accounting Oversight Board (PCAOB) have also issued new audit standards that are similar to the ISA (UK and Ireland) 700 and become effective on or after 15 December 2016 and 30 June 2019 respectively (IAASB 2015; PCAOB 2017)1.

The new audit standards are intended to provide additional information to financial statements users and to improve the communicative value of auditor's report (FRC 2013b; IAASB 2015; PCAOB 2017). ISA (UK and Ireland) 700 encourages auditors to express RMMs in their own words and to avoid standardized language (FRC 2013a)². With the increased freedom of word choice, it is expected that auditors, who have significant insider information of the client company, may communicate with financial statements users more effectively. Similarly, International Standard on Auditing 701 "Communicating key audit matters in the independent auditor's report" (hereafter "ISA 701") requires that auditors relate a key audit matter ("KAM") directly to the specific circumstances such that the description is less likely to become "overly standardized and less useful over time" (IAASB 2015, para. A44). PCAOB's new standard AS 3101 "The Auditor's Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion"

RMMs.



¹ Communication of critical audit matters ("CAMs") for audits of large accelerated filers will be effective on or after 30 June 2019, and for audits of all other companies will be effective on or after 15 December 2020 (PCAOB 2017).

² IAASB regards key audit matters ("KAMs") as those matters that are of most significance in the audit, while PCAOB regards CAMs as those matters that are material to the financial statements and involve especially challenging, subjective or complex judgments from auditors (IAASB 2015; PCAOB 2017). For brevity, I shall regard KAMs and CAMs the same as

(hereafter "AS 3101") also requires auditors' description of a critical audit matter ("CAM") to be specific to the circumstances to "avoid standardized language and to reflect the specific circumstances of the matter" (PCAOB 2017, p.30).

Nevertheless, there has been concern that disclosure of RMMs is still heavily influenced by standardized language. After the first two years of ISA (UK and Ireland) 700 implementation, the UK FRC selected audit reports and reported that although audit report language is evolving, there remains some generic risk descriptions and language (FRC 2015, 2016)^{3, 4}. This study aims to investigate two factors to auditor's choice in RMM auditing and reporting, namely auditor's own template and learning from industry audit expert (hereafter "expert" for brevity), as well as the consequences of such RMM auditing and reporting, especially on audit fees and audit delay. I posit that before the implementation of ISA (UK and Ireland) 700, auditors only have general principles of RMM documentation. In order to maintain similar reporting quality across firm, audit firms may set up their own RMM reporting template. After the first year of ISA (UK and Ireland) 700 implementation, auditors may now refer to the RMM documentation by expert and learn the wordings, the identification of RMM topics and even the actual audit work to improve audit and reporting quality. Figure 1 describes the timeline of ISA (UK and Ireland) 700 adoption. Appendix A provides an example of a fellow auditor following expert's RMM reporting.

[Insert Figure 1 here]

Using hand-collected audit report data from the London Stock Exchange (LSE) listed companies and examining the textual similarity, RMM topics and audit response of the RMM

⁴ The UK FRC selected 153 companies in the first year of ISA (UK and Ireland) 700 implementation and 278 companies in the second year of ISA (UK and Ireland) 700 implementation (FRC 2015, 2016). While the UK FRC claimed that it has covered 44% and nearly 80% of the top 350 companies listed on the UK's main market, the surveys may still not be representative of the whole market since there were yet more companies subject to ISA (UK and Ireland) 700. In this study I have collected 428 and 458 auditor's reports in the first two years of ISA (UK and Ireland) 700 implementation.



³ The UK FRC did not provide a definition of generic wordings and it stated that its assessment is "necessarily subjective" (FRC 2015, 2016).

documentation as required by ISA (UK and Ireland) 700, I determine that both RMM auditing and RMM reporting are affected by audit firm's own template and by industry audit expertise^{5, 6}.

In time-series analysis, it is found that effect of audit firm's own template is the strongest in the first year of ISA (UK and Ireland) 700 implementation and declines afterwards. It is also found that textual differentiation among different auditors has decreased as time goes by. Together, it may be due to auditors' learning from the expert's reporting. Besides, it is shown that effect of the expert's reporting is the strongest in the year following the first availability of RMM documentation, and weakens in later years. It could be due to the fact that in normal circumstances, most of a client firm's risks have been revealed in the first year of ISA (UK and Ireland) 700 implementation, thus leaving less room for the expert to discover further risks in future.

What contents auditors actually put in RMM reporting and how auditors address the risks may be of greater interest of financial statements users and regulators. By manually categorizing RMM documentations into 25 RMM topics, this paper provides initial descriptive evidence on auditor's auditing and reporting choice. It is found that auditors tend to include topics such as *impairment*, *revenue recognition*, *provisioning*, *taxation*, and *valuation*. Moreover, I further categorize audit response to seven specific RMM topics, namely *impairment*, *revenue recognition*, *provisioning*, *taxation*, *valuation*, *pension*, and *acquisition and disposal*. It provides additional descriptive evidence on how auditors address the risks.

Similar to the results of RMM textual similarity, it is found that both RMM topic choice and audit work choice are affected by firm-wide template and by learning from expert. Furthermore, evidence suggests that auditors do not blindly follow prior expert's wordings, RMM topic choice, or

⁶ Only firms with a premium listing are subject to ISA (UK and Ireland) 700 requirement. A premium listing is only available to equity shares issued by trading companies and closed and open-ended investment entities. Companies with a premium listing are expected to meet the UK's highest standards of regulation and corporate governance. In this study I only concentrate on companies with a premium listing and exclude all closed and open-ended funds.



⁵ I focus on the RMM content in auditor's report because other parts of audit report, such as the auditor's opinion on the financial statements, or the responsibilities of auditors and directors, or matters that auditors shall report on by exception in accordance to certain laws and regulations, are expected to be standardized. I have, however, performed tests on the whole auditor's report and the results are described in later sections.

audit work choice. Non-Big 4 auditors tend to follow prior expert more. Moreover, auditors tend to select prior expert to follow, and they follow more when their client firms are of similar risks as those audited by prior expert.

In additional tests where I consider how accepting a new client may affect RMM auditing and reporting of the ongoing clients, and vice versa, I find that the effect is two-way. On the one hand, the auditor is likely to apply the audit firm's own template on the new client's current RMM auditing and reporting, thus making the wordings, RMM topics and audit response for the new client more similar to those of the ongoing clients' prior reports. On the other hand, the auditor is also more likely to pay more attention to the prior RMM reporting of the new client and learn the wordings, RMM topics and audit response from the new client. As a result, the ongoing clients' current RMM auditing and reporting is also getting more similar to that of the new client's prior report.

As for the consequences of maintaining an audit firm-wide template or/ and learning from expert, I find that auditors are more likely to have higher audit fees and shorter audit lag. It indicates that having an audit firm's template or learning from expert is beneficial for auditors.

This study makes several contributions. First, it extends the growing literature in respect of the effect of regulatory changes of the expanded audit report model. DeFond and Zhang (2014) have called for more research on the impact of regulatory intervention. Carcello and Li (2013) investigate the cost and benefit of including engagement partner signature in auditor's report, while Czerney, Schmidt, and Thompson (2014) look at the informational content of explanatory language in unqualified audit report. ISA (UK and Ireland) 700 provides a unique setting to examine a significant change in auditor's report. Unlike concurrent archival studies (such as Reid, Carcello, Li, and Neal 2015, 2018; Smith 2017; Gutierrez, Minutti-Meza, Tatum, and Vulcheva 2018; Lennox, Schmidt, and Thompson 2018) which focus on how investors or analysts react to RMM reporting, this study examines from auditors' perspective. Indeed, the review paper by Bedard, Coram,



Espahbodi, and Mock (2016) has suggested the importance to investigate the effect of RMM reporting requirement on auditors' behavior.

Second, it adds to the line of audit expertise literature? Prior studies have examined industry audit expertise at different levels, namely firm, office, and partner levels (such as Francis, Reichelt, and Wang 2005; Reichelt and Wang 2010; Cameran, Campa, and Francis 2018), or have investigated how such expertise impacts on audit quality or earnings quality (such as Hegazy, Al Sabagh, and Handy 2015; Gaver and Utke 2018; Gunn and Michas 2018). However, the literature has remained silent on how audit expertise may influence other auditors. Undoubtedly, audit is an unobservable process and the prior boilerplate audit report does not reflect audit effort nor audit expertise. This study provides evidence that auditors would learn from expert when there is observable audit output (RMM reporting) that relates to both audit effort and audit expertise.

Finally, this study may be of interest of regulators. ISA (UK and Ireland) 700 intends to improve the communicative value of audit reports by avoiding standardized language. This study examines how standardized wordings are caused by audit firm's own template and by learning from expert. The findings may be useful to the UK FRC as a post-implementation review of ISA (UK and Ireland) 700. The results may also be referentially beneficial to IAASB and PCAOB since the new audit standards issued by the two regulators are comparatively recent and there may lack enough evidence to reflect implementation result.

Nonetheless, I note various caveats in the study. First, the institutional and regulatory difference between the UK and the United States (US) may add difficulty to generalize the results. The UK is a less litigious environment than the US, and it may affect how auditors write audit reports if legal liability is of less concern. Second, the RMM topics and audit work have been manually categorized. The categorization is therefore subjective and the results may be biased. Third, ISA (UK and Ireland) 700 is applicable for companies with a premium listing of equity shares

⁷ The literature has used "expertise" and "specialization" interchangeably.



on the LSE (FRC 2013a). The use of these typically larger and thus more visible sample firms can increase the power of the tests, but it may limit the generalizability of the findings.

The rest of this paper contains five sections. Section 2 reviews the background of ISA (UK and Ireland) 700 and relevant research. Section 3 develops the hypotheses and Section 4 describes the research methodology. Results are presented and analyzed in Section 5. Section 6 concludes.

2. Background

2.1 Background of ISA (UK and Ireland) 700

Historically, auditor's report is viewed as a binary pass or fail model because auditor issues either an unqualified (pass) or qualified (fail) opinion in regard to the true and fair presentation of financial statements⁸. Although auditors have obtained much insider information about the economic status of the client firm, generic wordings in audit reports convey little firm-specific information to financial statement users. Prior studies (such as Church, Davis, and McCracken 2008; CFA Institute 2010; Gray, Turner, Coram, and Mock 2011; Vanstraelen, Schelleman, Meuwissen, and Hofmann 2012; Mock, Bedard, Coram, Davis, Espahbodi, and Warne 2013) show that the boilerplate template of audit report is of little communicative value and that more audit-related disclosure should be added to mitigate the information asymmetry between auditors and financial statements users.

Responding to the public demand for a more informative audit report, in June 2013, the UK FRC was the first regulator to issue ISA (UK and Ireland) 700, which became effective on or after 30

⁸ Auditors may include an emphasis of matter paragraph if they would like to draw financial statements users' attention to a matter that is of such importance and fundamental to understand the financial statements (FRC 2012). Including an emphasis of matter paragraph does not modify the auditor's opinion (FRC 2012). IAASB and PCAOB have similar standards on emphasis of matter paragraph (IAASB 2009; PCAOB 2004). Czerney et al. (2014) investigate the unqualified explanatory language in auditor's report from 2000 to 2009. They note that the most common explanatory language in their sample are changes in accounting standards, and supplemental schedules to be read in conjunction with the financial statements (38% and 39% respectively) (Czerney et al. 2014). Hence, the content of emphasis of matter paragraph is rather different from the content of RMM documentation.



September 2013 (FRC 2013a). ISA (UK and Ireland) 700 requires auditors to disclose in audit report:

- (1) the RMMs which have the greatest effect on the audit,
- (2) the application of materiality in the audit process, and
- (3) the overview of the scope of audit procedures addressing (1) and (2) (FRC 2013a).

 This standard is applicable for companies with a premium listing of equity shares on the LSE (FRC 2013a).

The new audit standard provides auditors with an opportunity to discuss the area of risks they discover during the audit and how they address the risks. It is expected that the disclosure of RMMs can give more insight to investors than the binary pass or fail audit report model (FRC 2013b). The standard also encourages auditors to use their judgment to determine which risks would be included in auditor's report, to adopt their own wordings to describe company-specific situation, and to avoid standardized language (FRC 2013a).

Following the UK FRC's reform to audit report model, IAASB issued ISA 701 in January 2015 and PCAOB issued AS 3101 in June 2017 respectively. ISA 701, which became effective on or after 15 December 2016, requires auditors to use their professional judgment to include in audit report the matters that are of most significance in the audit and how the matters are addressed (IAASB 2015). AS 3101, which takes effect for large accelerated filers on or after 30 June 2019 and for all other companies on or after 15 December 2020, requires auditors to include in audit report the matters that are material to the financial statements and that involve especially challenging, subjective, or complex audit judgment, as well as how the matters are addressed (PCAOB 2017). Despite the slightly different definitions, ISA 701 and AS 3101 are in general similar to ISA (UK and Ireland) 700. A key feature in these new standards is to provide additional information to financial statements users by avoiding standardized wordings for firm-specific circumstances and thus improving the communicative value of financial statements (FRC 2013b; IAASB 2015; PCAOB 2017).



2.2 Background of related studies

A significant number of experimental and archival studies have been performed on RMM reporting requirement. While experimental research has mainly focused on how RMM documentation affects financial statements users' decision making when evaluating financial statements (such as Christensen, Glover, and Wolfe 2014; Doxey 2014; Sirois, Bedard, and Bera 2018), as well as how RMM documentation affects financial statements users' assessment on auditors' liability (such as Brasel, Doxey, Grenier, and Reffett 2016; Gimbar, Hansen, and Ozlanski 2016; Kachelmeier, Schmidt, and Valentine 2018); archival studies have mainly focused on how market reacts to RMM reporting and whether RMM reporting affects audit quality or audit fees (such as Reid et al. 2015, 2018; Gutierrez et al. 2018; Lennox et al. 2018) (summarized by Bedard et al. 2016)⁹.

It seems that there is limited evidence on how RMM documentation affects auditors' behavior. Bedard et al. (2016) have suggested the importance to investigate how auditors' behavior is affected by RMM reporting requirement. To the best of my knowledge, Gay and Ng (2015) is the first paper in this area. They perform an experiment with audit partners and managers from two Big 4 firms. It is found that when audit committee is reactive (i.e. asking fewer questions), auditors are less likely to report aggressive accounting estimates in the presence of CAM reporting requirement (Gay and Ng 2015, as cited by Bedard et al. 2016) 10. In this study, instead of examining the effects of external oversight on auditors' behavior, I first consider how within-audit-firm factor may affect auditor's RMM auditing and reporting behavior. In other words, my first research question is: How is RMM auditing and documentation affected by auditor's own template?

Next, I would like to extend my study to how <u>inter-audit-firm factor</u> may affect auditor's RMM auditing and reporting behavior. Francis and Wang (2005) suggest learning mechanism among auditors when there is public disclosure of previously unobservable information. They find

¹⁰ Gay and Ng (2015), as cited by Bedard et al. (2016), is presented at the International Symposium on Audit Research and is currently not publicly available.



⁹ Archival studies have mainly focused on the impact of adopting ISA (UK and Ireland) 700 in the UK. There are only a few studies concerning other countries (such as France (Bedard, Gonthier-Beascier, and Schatt 2014), or New Zealand (Almulla and Bradbury 2018; Li, Hay, and Lau 2018)).

that after mandated public disclosure of audit fees, subsequent audit fees are adjusted with reduced dispersion. Drake, Lamoreaux, Quinn, and Thornock (2018) also find that auditors tend to search and benchmark non-client's financial statements information when reviewing their client's financial reports. In addition, Bills, Cunningham, and Myers (2016) and Bills, Hayne, and Stein (2017) suggest resources sharing and experience learning among small audit firms through accounting associations and networks to improve audit quality and to strengthen reputation. It seems highly probable that auditors would learn from each other, especially from an expert who is perceived as with better quality, to enhance professionalism and reputation. This motivates my second research question: *How is RMM auditing and documentation affected by industry audit expertise?*

To investigate auditor's RMM reporting behavior, I have adopted textual analysis on RMM documentation. Specifically, I compare RMM reporting in each auditor's report and measure the textual similarity. In addition, I manually categorize RMM documentations into 25 RMM topics and examine what contents auditors include in RMM reporting. To examine auditor's RMM auditing behavior, I further categorize auditor's response (as included in RMM documentation) to the seven specific RMM topics and determine how audit work is affected by auditor's own template and by learning from expert.

Textual similarity provides a straightforward measurement if auditors adopt firm-wide RMM reporting template or if they learn from and follow expert's wordings. A closely related study employing textual similarity of expanded auditor's report is Zhang and Shailer (2018)¹¹. However, this study differentiates itself with two features. First, Zhang and Shailer (2018) find that textual similarity is associated with lower audit quality (measured by higher absolute abnormal accruals) as auditors may intentionally use generic wordings to obfuscate their performance. I examine from another perspective and suggest that legitimacy theory may be the driving force of standardized

¹¹ Zhang and Shailer (2018) is presented at the European Accounting Association Conference and is currently not publicly available.

language. Legitimacy is "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate" (Suchman 1995, p.574). Therefore, audit firms may set up their own RMM reporting template to make "like things look alike" to enhance comparability and consistency (FASB 2010, QC23). Auditors may also learn from and follow expert's RMM reporting to enhance credibility. Second, textual similarity scores are calculated differently in Zhang and Shailer (2018) and in this study. Zhang and Shailer (2018) measure similarity score of expanded auditor's reports which are restricted to the same auditor in the same year, and the score is further adjusted with industry-based comparability effects¹². Without adjusting for industry effects, the association between textual similarity and lower audit quality is no longer significant (Zhang and Shailer 2018). In this study, I allow flexibility in measuring the pairwise textual similarity of any mix-and-match expanded audit reports. It provides me with opportunities to perform both cross-sectional and time-series studies.

Topic categorization further provides descriptive evidence on the actual contents of RMM documentation, including RMM topics and audit response to the risks. To the best of my knowledge, this is the first paper to examine RMM topics and how auditors address RMMs as written in audit report. Prior literature has adopted Latent Dirichlet Allocation (LDA) to identify topics in other reports. For instance, Huang, Lehavy, Zang and Zheng (2016) employ LDA to identify topics discussed in conference calls and analyst reports, Ball, Hoberg, and Maksimovic (2015) and Hoberg and Lewis (2017) use LDA to identify topics in MD&As, and Dyer, Lang, and Stice-Lawrence (2017) apply LDA to identify topics in 10-K disclosures. While LDA supports topic analysis over a large group of lengthy documents, one limitation of LDA is its inability to model topic correlation (Blei

score, i.e. $\delta = BaseSimilarity - IndSimilarity$.



¹² Zhang and Shailer (2018) measure each company's base similarity score as the average similarity score in relation to all other companies audited by the same auditor in the same year, i.e. $BaseSimilarity_{it} = \frac{\sum_{j}Similarity_{i,j}}{n-1}$, where company j must be audited by the same auditor for company i in year t. This base similarity score is then adjusted with industry-based similarity score, which is the average similarity score in relation to all other same industry companies in the same auditor-year, i.e. $IndSimilarity_{it} = \frac{\sum_{j}Similarity_{i,j}}{m-1}$, where in this case company j must be additionally in the same industry as company i. The main variable of interest is either the residual ε from the regression: $BaseSimilarity = IndSimilarity + \varepsilon$, or the difference δ between base similarity score and industry-based similarity

and Lafferty 2009). Auditor's risk assessment of different topics may be correlated and RMM wordings are often similar, such as "risks," "assumptions," "significant," "procedures," "controls," etc., thus making topic identification with LDA obscure and uncertain. By manually reading each RMM documentation and manually categorizing RMM topics and auditor's work, it allows clearer understanding of auditor's RMM auditing and reporting behavior.

3. Hypotheses Development

As ISA (UK and Ireland) 700 requires auditors to use their judgment to determine which risks as well as the audit procedures addressing the risks are included in RMM documentation (FRC 2013a), it is expected that RMM auditing and reporting would be affected by two dimensions:

$$RMM = F(Firm, Auditor, n) \tag{1}$$

where

RMM = RMM auditing and documentation,

Firm = client firm's risks factor (driven by the client firm's characteristics),

Auditor = auditor's judgment (driven by the auditor's characteristics), and

n = value-added information discovered by industry audit expert.

Legitimacy theory suggests that audit firms may set up firm-wide template to make RMM auditing and reporting more comparable and consistent. As a result, the above equation would become:

$$RMM = F(Firm, Auditor, Template, n)$$
 (2)

where *Template* refers to RMM auditing and reporting template set up by each audit firm. It leads to the first hypothesis:

H1a: RMM documentation is affected by auditor's firm-wide template.

H1b: RMM auditing is affected by auditor's firm-wide template.



In the first year of ISA (UK and Ireland) 700 adoption, auditors only have general RMM reporting principles. There is no precedent of RMM documentation. Therefore, it is expected that industry audit expert would disclose: $RMM_{expert,t} = F(Firm_t, Auditor_t, Template_t, n_t)$ while non-expert would disclose: $RMM_{-expert,t} = F(Firm_t, Auditor_t, Template_t)$. Once RMM documentation has become publicly available, auditors may now refer to the RMM reporting by the expert to enhance audit quality and creditability. Accordingly, in the second and following years of ISA (UK and Ireland) 700 implementation, it is expected that the expert would disclose: $RMM_{expert,t+1} = F(Firm_{t+1}, Auditor_{t+1}, Template_{t+1}, n_{t+1})$ while the non-expert would disclose: $RMM_{-expert,t+1} = F(Firm_{t+1}, Auditor_{t+1}, Template_{t+1}, n_t)$. It leads to the second hypothesis:

H2a: RMM documentation is affected by prior year industry audit expert.

H2b: RMM auditing is affected by prior year industry audit expert.

Since RMM auditing and documentation may be affected by auditor's firm-wide template as well as by expert, it is expected that auditor's effort would be affected. As such, audit fees and audit delay would change as well. On the one hand, maintaining firm-wide template or learning from expert can be auditor's additional effort to provide better quality audit. Thus, audit fees would be higher and audit delay would be longer. On the other hand, simply following firm-wide template or expert without auditor's own judgment can be a shirking behavior. As a result, audit fees would be lower as auditors have exerted less effort and audit delay would be shorter. It leads to the third hypothesis:

H3a: Audit fees are affected by maintaining auditor's firm-wide template or/ and learning from prior year industry audit expert.

H3b: Audit delay is affected by maintaining auditor's firm-wide template or/ and learning from prior year industry audit expert.



4. Research Methodology

4.1 Textual similarity measure

I follow Hoberg and Phillips (2016) method to calculate firm-by-firm pairwise textual similarity. To put it simply, this similarity is a cosine similarity that measures the angle between two wordvectors of RMM reporting from two audit reports¹³:

$$Similarity_{i,j} = \frac{v_i \cdot v_j}{\|v_i\| \|v_j\|}$$
(3)

where V_i and V_j represent the word-vectors of RMM documentation from audit reports i and j, and $\|V_i\|$ and $\|V_j\|$ denote the vector lengths ¹⁴. Appendix A provides examples of "more similar" and "less similar" RMM reporting with a further explanation of similarity calculation method.

Similarity is bounded within (0, 1). I compute Sim_score as the percentage level of Similarity. Intuitively, when two RMM documentations have higher textual similarity, the auditors of these two audit reports have used more of the same words. My main research focus is on RMM reporting, but I have also employed the textual similarity of the whole audit report as a robustness test.

4.1.1 Testing for effect of auditor's firm-wide template

To test whether RMM documentation is affected by auditor's own template, I have adopted two approaches. First, I examine and compare RMM reporting in the same year. Following Hoberg and Phillips (2016), the data structure for this test is <u>pairwise firms in the same year</u>. This general approach gives me a glimpse of how RMM documentation is affected by the same auditor:

$$Sim_score = \alpha + \beta_1 Same(Auditor) + \beta_2 Same(AuditOffice) + \beta_3 Same(AuditPartner) +$$

$$\beta_4 Same(Ind) + \beta_5 Diff(Size) + \beta_6 Diff(Lev) + \beta_7 Diff(ROA) +$$

$$\beta_8 Diff(ExtraOrdinaryItem) + \beta_9 Diff(lnAge) + \beta_{10} Both(Big4) +$$

¹⁴ Since the similarity is normalized, it provides "a natural control for document length" (Hoberg and Phillips 2016, p.1432). Nonetheless, I have included word counts as a control variable and the results remain robust.



¹³ In constructing word-vector, "stop words" such as "articles, conjunctions, personal pronouns, abbreviations, legal jargon," or words that appear in more than 25% of all RMM documentations in a given year are removed (Hoberg and Phillips 2016, p.1460).

$$\beta_{11}Diff(AuditFirmIndExp) + \beta_{12}Diff(lnAbAuditFee) +$$

$$\beta_{13}Diff(lnWordcount) + \beta_{14}Note_Sim_score + Year FE + \varepsilon$$
(4)

where Same(Auditor), Same(AuditOffice), and Same(AuditPartner) are the variables of interest which take 1 if the pairwise audit reports are issued by the same auditor at different levels, and 0 otherwise. In the above and following equations, $Same(\cdot)$ and $Both(\cdot)$ are functions that take 1 if the pair share the same attribute, and 0 otherwise; while $Diff(\cdot)$ is a function that is the absolute value of the pairwise difference in attributes of interest. I control for various client firm's risk factors which can affect RMM reporting, such as industry (Ind), size (Size), leverage (Lev), profitability (ROA), amount of extraordinary items (ExtraOrdinaryItem), and maturity (InAge). If client firms have more similar risks, it is expected that their RMM documentations would be more similar as well. I also control for various auditor's characteristics which can affect audit quality, including Big 4 prestige (Big4), industry specialization (AuditFirmIndExp), and abnormal audit fee (lnAbAuditFee) 15. Since auditors need to use their judgment in writing RMM documentation, it is expected that auditors of more similar characteristics would provide more similar RMM reporting. Finally, I control for the RMM documentation length (lnWordcount) as well as the similarity of management's accounting policies disclosure in the notes of financial statements (*Note Sim score*). This helps to control for similarity in accounting system between firms. If two firms have similar accounting systems, they might have similar risk factors in financial reporting.

In addition to the general same auditor effect, I further break down the variables of interest into Both(Deloitte), Both(EY), Both(KPMG), and Both(PwC) (as well as office and partner levels), where $Both(\cdot)$ takes 1 if the pairwise audit reports are issued by the same specific auditor at

 $^{^{15}}$ Audit fee captures audit risks and thus is not a clean measure for differentiating auditors' characteristics. I estimate abnormal audit fee with the following regression model: $lnAuditFee=\alpha+\beta_1 lnTotalAsset+\beta_2 Lev+\beta_3 ROA+\beta_4 BTM+\beta_5 Loss+\beta_6 ExtraOrdinaryItem+\beta_7 GC+\beta_8 Busy+\beta_9 Big4+\beta_{10} NewAuditor+\beta_{11} AuditFirmIndExp+\beta_{12} lnReportLag+YearFE+IndustryFE$ following prior literature (such as Simunic 1980; Ghosh and Lustgarten 2006; Hay, Knechel, and Wong 2006; Higgs and Skantz 2006). The adjusted R-square of this model is over 80%. However, regression result is not reported for brevity.

different levels, and 0 otherwise, to determine which Big 4 auditor has a stronger template effect on RMM documentation.

My second approach to examine how RMM reporting is affected by auditor's own template is to concentrate on textual similarity of audit reports of the same client firm but in different years. Following Brown and Tucker (2011), the data structure for this test is <u>pairwise same client firm in consecutive years</u>. A company's operation and risks seldom change significantly in consecutive years. Therefore, if a change of auditor has brought significant change in RMM documentation, it is likely that the RMM reporting change is due to different auditors' templates rather than change in client firm's risks.

 $Sim_score =$

 α +

$$eta_1$$
Change(Auditor) or Change(AuditOffice) or Change(AuditPartner) +
 eta_2 Diff(Size) + eta_3 Diff(Lev) + eta_4 Diff(ROA) + eta_5 Diff(ExtraOrdinaryItem) +
 eta_6 Diff(lnAge) + eta_7 Diff(AuditFirmIndExp) + eta_8 Diff(lnAbAuditFee) +
 eta_9 Diff(lnWordcount) + eta_{10} Note_Sim_score + Year FE + Firm FE + ε (5)

where *Change*(*Auditor*), *Change*(*AuditOffice*), and *Change*(*AuditPartner*) are the variables of interest which take 1 if there has been a change in auditor (and additionally a change in office or partner respectively), and 0 otherwise. Control variables include both client firm's risk factors and auditor's characteristics which may have an effect on RMM reporting. I also control for the RMM documentation length as well as the similarity of management's accounting policies disclosure. Since the data consists of pairwise same client firm in consecutive years, serial correlation within a firm may exist in the data. I therefore include firm fixed effects to capture any omitted within-firm variation.

To distinguish between the effect of different offices (partners) from different audit firms and the effect of different offices (partners) from the same audit firm (i.e. in the case of office/



partner rotation), I have replaced the variables of interest to Same(FirmChange(Off)) and Same(FirmChange(Ptn)) respectively, where Same(FirmChange(Off)) and Same(FirmChange(Ptn)) take 1 if there has been a change in audit office (partner) without any change in audit firm, and 0 otherwise. Both Change(AuditOffice), Change(AuditPartner), and Same(FirmChange(Off)), Same(FirmChange(Ptn)) test for the effect of different offices or partners, but the main difference between these variables is that Change(AuditOffice) and Change(AuditPartner) include the effect of different audit firms while Same(FirmChange(Off)) and Same(FirmChange(Ptn)) do not. If the effect of different offices (partners) from the same audit firm is insignificant, it suggests that office (partner) level is of relatively less importance in influencing RMM reporting.

4.1.2 Testing for effect of prior expert's wordings

To test whether RMM documentation is affected by prior expert's wordings, I examine and compare RMM reporting in the same industry firms in prior and current years. The data structure for this test includes pairwise same industry firms in consecutive years (around 60% of the data) and pairwise same industry firms in the same year (around 40% of the data). The reason to include pairwise same industry firms in the same year in the data structure is that there remains doubt that auditors may follow each other's current writing style. As seen from equation (4), RMM reporting style can be affected by auditor's own template in the same year. Without controlling for same year factor, the test may overestimate the effect of prior expert.

$$Sim_score = \alpha + \beta_1 PriorIndExp + \beta_2 Same(Year) + \beta_3 Diff(Size) + \beta_4 Diff(Lev) + \\ \beta_5 Diff(ROA) + \beta_6 Diff(ExtraOrdinaryItem) + \beta_7 Diff(lnAge) + \beta_8 Both(Big4) + \\ \beta_9 Diff(AuditFirmIndExp) + \beta_{10} Diff(lnAbAuditFee) + \beta_{11} Diff(lnWordcount) + \\ \beta_{12} Note_Sim_score + Year FE + Industry FE + \varepsilon$$

$$(6)$$

where *PriorIndExp* is the variable of interest which takes 1 if the client firm is compared against a firm which is audited by a prior expert, and 0 otherwise. Following prior studies (such as Carson



2009; Gul, Fung, and Jaggi 2009; Zerni 2012), industry audit expert is defined as the audit firm having the largest share of the industry's total assets¹⁶.

Same (Year) is an indicator which is equal to 1 when the client firm is in the same year of the compared firm, and 0 otherwise. As abovementioned, this is to control for the effect of auditor's own template in the same year, as well as the effect of auditor's following each other's current writing style. Similar to equations (4) and (5), I control for client firm's risk factors and auditor's characteristics which may affect RMM reporting. Besides, I control for the RMM documentation length as well as the similarity of management's disclosure on accounting policies. Since the data consists of pairwise same industry firms, serial correlation within an industry may exist in the data. I thus include industry fixed effects to capture any omitted within-industry variation.

To further understand auditors' tendency to learn from and follow prior expert's wordings under various conditions, I conduct tests focusing on:

- (1) whether Non-Big 4 auditors are more likely to follow prior expert's wordings. Prior literature (Bills et al. 2016; Bills et al. 2017) has found resources sharing and experience learning among small audit firms through accounting associations and networks. As Non-Big 4 auditors are smaller audit firms with fewer resources, it is probable that Non-Big 4 auditors would be more likely to learn from and follow prior expert's RMM reporting to improve reporting quality and credibility;
- (2) whether auditors select specific prior expert to follow. Prior studies (Fisher and Deans, 2014; Reid et al. 2015) find that audit reports provided by KPMG (EY) are the most (least) useful to investors¹⁷. Therefore, in order to be perceived as "good audit quality" by financial statements

 $^{^{17}}$ Fisher and Deans (2014) find that audit reports provided by KPMG (EY) are the most (least) useful to investors because "KPMG [includes] the most useful analysis of risk, while the lack of detail provided means EY typically lags behind the



¹⁶ Alternative measures for industry specialization include audit fee or number of clients. As Causholli, De Martinis, Hay, and Knechel (2011) point out, industry specialization based on client size or audit fee would favor large auditor as expert, whereas industry specialization based on number of clients would favor small auditor as expert. Since there is concern that industry audit expert may charge a fee premium (Carson 2009), I have based industry specialization on client size. However, I acknowledge that results might be different if industry audit expert were based on audit fee (Audousset-Coulier, Jeny, and Jiang 2016).

- users, auditors may tend to follow less if the prior expert is EY and more if the prior expert is KPMG; and
- (3) whether auditors are more likely to learn from and follow prior expert's wordings when the client firm is of higher risks. Auditors may follow prior expert more if they audit a riskier client firm because prior expert is of higher audit quality and learning the writing style improves their reporting quality as well as credibility. On the other hand, the expert's client portfolio may be very different from a risky client firm since expert has greater bargaining power to select clients. Thus, prior expert's reporting may not be applicable to a risky client firm.

4.2 Topic study measure

Apart from examining textual similarity of audit reports to investigate auditor's RMM reporting behavior, I read all RMM documentations and manually categorize them into 25 RMM topics to understand which risk areas are of auditor's concern. While prior literature (such as Ball et al. 2015; Huang et al. 2016; Dyer et al. 2017; Hoberg and Lewis 2017) has adopted LDA to identify topics, I consider topic modeling with LDA inappropriate in this study because LDA fails to model topic correlation (Blei and Lafferty 2009). Auditor's risk assessment of different topics may be correlated and RMM documentations often contain similar wordings, such as "risks," "assumptions," "significant," "procedures," "controls," etc., thus making topic identification with LDA obscure and uncertain 18.

4.2.1 Validating the categorization of RMM topics

To validate my topic categorization, I set up the data structure as <u>firm-year observations</u> and test if RMM topics are related to client firm's attributes and auditor's characteristics using the following conditional logistic model:

¹⁸ I adopt LDA for topic identification originally but the results are not satisfactory. I generate topics ranging from 2 to 20 and I find that key words of quite a lot of topics are duplicated and cannot classify topics clearly. Please refer to Appendix C for an example of topic generation result.



other Big 4 in its discussion of risk" (as cited by Reid et al. 2015). Fisher and Deans (2014) is in *Citigroup Global Markets* research report and is currently not publicly available.

$$\begin{split} \Pr[Include] &= \alpha + \sum_{1}^{n} \beta_{n}(Size*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(Lev*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(ROA*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(ExtraOrdinaryItem*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(InAge*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(Loss*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(GC*RMM_Topic_{n}) + \\ & \sum_{1}^{n} \beta_{n}(MA_num*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(NewEquity_num*RMM_Topic_{n}) + \\ & \sum_{1}^{n} \beta_{n}(IPO*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(Busy*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(NewAuditor*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(AuditFirmIndExp*RMM_Topic_{n}) + \\ & \sum_{1}^{n} \beta_{n}(InAbAuditFee*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(Deloitte*RMM_Topic_{n}) + \\ & \sum_{1}^{n} \beta_{n}(EY*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(KPMG*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(PwC*RMM_Topic_{n}) + \\ & EMM_Topic_{n}) + \varepsilon \end{split}$$

where *Include* takes 1 if the specific RMM topic (*RMM_Topic*) is included in the audit report, and 0 otherwise. *RMM_Topic* is a categorical variable which denotes various RMM topics. Equation (7) is set up with interactive terms such that I am able to examine the relative relevance of client firm's attributes and auditor's characteristics to the inclusion of various RMM topics.

I consider various client firm's risk factors which can affect auditor's risk assessment, such as size (*Size*), leverage (*Lev*), profitability (*ROA*), amount of extraordinary items (*ExtraOrdinaryItem*), maturity (*InAge*), loss (*Loss*), going concern opinion (*GC*), number of mergers and acquisitions (*MA_num*), number of new equity issuances (*NewEquity_num*), and whether the firm has just undergone IPO (*IPO*). I also consider various auditor's characteristics which can affect audit quality, including busy audit season (*Busy*), adoption of new auditor (*NewAuditor*), industry specialization (*AuditFirmIndExp*), abnormal audit fee (*InAbAuditFee*), and specific Big 4 auditors (*Deloitte*, *EY*, *KPMG*, and *PwC*).

4.2.2 Testing for effect of the same auditor

To test whether RMM topics are affected by auditor's own template, I examine and compare RMM reporting in the same year. As equation (4), the data structure for these tests is <u>pairwise firms in the same year</u>.



$$Diff(RMM) = \alpha + \beta_{1}Same(Auditor) + \beta_{2}Same(AuditOffice) + \beta_{3}Same(AuditPartner) + \beta_{4}Same(Ind) + \beta_{5}Diff(Size) + \beta_{6}Diff(Lev) + \beta_{7}Diff(ROA) + \beta_{8}Diff(ExtraOrdinaryItem) + \beta_{9}Diff(InAge) + \beta_{10}Diff(MA_num) + \beta_{11}Diff(NewEquity_num) + \beta_{12}Both(GC) + \beta_{13}Both(IPO) + \beta_{14}Both(Big4) + \beta_{15}Diff(AuditFirmIndExp) + \beta_{16}Diff(InAbAuditFee) + \beta_{17}Diff(InReportLag) + Year FE + IndustryFE + \varepsilon$$

$$(8)$$

where Same(Auditor), Same(AuditOffice), and Same(AuditPartner) are the variables of interest which take 1 if the pairwise audit reports are issued by the same auditor at different levels, and 0 otherwise. The dependent variable Diff(RMM) is the absolute difference of the number of RMMs of the pairwise audit reports.

$$\begin{split} \Pr[Same(RMM_Topic)] &= \alpha + \pmb{\beta_1}Same(Auditor) + \pmb{\beta_2}Same(AuditPartner) + \beta_3Same(Ind) + \\ & \beta_4Diff(Size) + \beta_5Diff(Lev) + \beta_6Diff(ROA) + \\ & \beta_7Diff(ExtraOrdinaryItem) + \beta_8Diff(InAge) + \beta_9Diff(MA_num) + \\ & \beta_{10}Diff(NewEquity_num) + \beta_{11}Both(GC) + \beta_{12}Both(IPO) + \\ & \beta_{13}Both(Big4) + \beta_{14}Diff(AuditFirmIndExp) + \\ & \beta_{15}Diff(InAbAuditFee) + \beta_{16}Diff(InReportLag) + Industry FE + \varepsilon \ (9) \end{split}$$

where Same(Auditor) and Same(AuditPartner) are the variables of interest which take 1 if the pairwise audit reports are issued by the same audit firm (partner), and 0 otherwise. The dependent variable $Same(RMM_Topic)$ is equal to 1 if the pairwise audit reports have at least one same specific RMM topic, and 0 otherwise.

Similar to equation (4), I control for various client firm's risk factors which can affect auditor's risk assessment, such as industry (*Ind*), size (*Size*), leverage (*Lev*), profitability (*ROA*), amount of extraordinary items (*ExtraOrdinaryItem*), and maturity (*InAge*). I also control for additional client firm's risk factors, including number of mergers and acquisitions (*MA_num*), number of new equity issuances (*NewEquity_num*), going concern opinion (*GC*), and recent IPO



(*IPO*). If client firms have more similar risks, it is expected that they would have similar numbers of RMMs (i.e. smaller absolute difference in number of RMMs). It is also expected that they are more likely to have the same specific RMM topic. As some RMM topics are industry specific, I further include industry fixed effects to capture any omitted within-industry variation. Besides, I control for various auditor's characteristics which can affect audit quality, including Big 4 prestige (*Big*4), industry specialization (*AuditFirmIndExp*), abnormal audit fee (*lnAbAuditFee*), and audit delay (*lnReportLag*). Since auditors need to use their judgment in performing RMM auditing and reporting, it is expected that auditors of more similar characteristics would include similar number of RMMs as well as similar RMM topics.

In addition to the general same auditor effect, I further break down the variables of interest into Both(Deloitte), Both(EY), Both(KPMG), and Both(PwC) (as well as partner levels), where $Both(\cdot)$ takes 1 if the pairwise audit reports are issued by the same specific audit firm (partner), and 0 otherwise, to determine if specific Big 4 auditors have different preference in issuing certain RMM topics.

4.2.3 Testing for effect of prior expert's RMM topic choice

To test whether RMM topics are affected by prior expert's RMM topic choice, I define a firm following prior expert's RMM topic choice when the firm has not included a certain topic X while the expert has included topic X in year t-1, and the firm includes topic X in year t, as illustrated in Figure 2.

[Insert Figure 2 here]

The data structure for these tests is <u>pairwise same industry firms in consecutive years</u>.

Unlike equation (6) that includes both pairwise same industry firms in consecutive years and pairwise same industry firms in the same year as data structure, I focus merely on pairwise same industry firms in consecutive years because the indicator of a firm following prior expert's RMM topic choice is always 0 for the same year pairs.



$$RMM_{firm} = \alpha + \beta_{1}PriorIndExp + \beta_{2}RMM_{pairwise\ firm} + \boldsymbol{\beta_{3}PriorIndExp} * RMM_{pairwise\ firm} +$$

$$\beta_{4}Diff(Size) + \beta_{5}Diff(Lev) + \beta_{6}Diff(ROA) + \beta_{7}Diff(ExtraOrdinaryItem) +$$

$$\beta_{8}Diff(lnAge) + \beta_{9}Loss + \beta_{10}GC + \beta_{11}MA_{num} + \beta_{12}NewEquity_{num} + \beta_{13}IPO +$$

$$\beta_{14}Busy + \beta_{15}NewAuditor + \beta_{16}Same(Auditor) + \beta_{17}Both(Big4) +$$

$$\beta_{18}Diff(AuditFirmIndExp) + \beta_{19}Diff(lnAbAuditFee) + \beta_{20}Diff(lnReportLag) +$$

$$Year\ FE + Industry\ FE + \varepsilon \tag{10}$$

where PriorIndExp is equal to 1 if the client firm is compared against a firm which is audited by a prior expert, and 0 otherwise; $RMM_{pairwise\ firm}$ is the number of RMMs of the pairwise firm; and $PriorIndExp*RMM_{pairwise\ firm}$ is the variable of interest. The dependent variable RMM_{firm} denotes the number of RMMs of the client firm.

 $Pr[Follow(RMM_Topic)] =$

$$\alpha + \beta_{1}PriorIndExp + \beta_{2}Diff(Size) + \beta_{3}Diff(Lev) +$$

$$\beta_{4}Diff(ROA) + \beta_{5}Diff(ExtraOrdinaryItem) + \beta_{6}Diff(lnAge) +$$

$$\beta_{7}Loss + \beta_{8}GC + \beta_{9}MA_num + \beta_{10}NewEquity_num + \beta_{11}IPO +$$

$$\beta_{12}Busy + \beta_{13}NewAuditor + \beta_{14}Same(Auditor) + \beta_{15}Both(Big4) +$$

$$\beta_{16}Diff(AuditFirmIndExp) + \beta_{17}Diff(lnAbAuditFee) +$$

$$\beta_{18}Diff(lnReportLag) + Industry FE + \varepsilon$$
(11)

where *PriorIndExp* is the variable of interest which takes 1 if the client firm is compared against a firm which is audited by a prior expert, and 0 otherwise. The dependent variable $Follow(RMM_Topic)$ is equal to 1 if the client firm follows prior expert's RMM topic choice, and 0 otherwise.

Similar to equation (6), I control for various client firm's risk factors and auditor's characteristics which may affect auditor's risk assessment, such as size (Size), leverage (Lev), profitability (ROA), amount of extraordinary items (ExtraOrdinaryItem), maturity (InAge), Big 4 prestige (Big4), industry specialization (AuditFirmIndExp), and abnormal audit fee



(InAbAuditFee). In addition, I control for some specific factors that may affect auditor's risk assessment, including whether the client firm has loss (Loss), going concern opinion (GC), special events (MA_num, NewEquity_num, and IPO), busy audit season (Busy), initial audit engagement (NewAuditor), whether the client firm has the same auditor as the compared firm (Same(Auditor)), as well as the absolute difference in audit delay between the two firms (InReportLag). Since the data consists of pairwise same industry firms, serial correlation within an industry may exist in the data. I thus include industry fixed effects to capture any omitted within-industry variation.

As equation (6), in order to further understand auditors' tendency to learn from and follow prior expert's RMM topic choice under various conditions, I conduct the following additional tests:

- (1) whether Non-Big 4 auditors are more likely to follow prior expert's RMM topic choice;
- (2) whether auditors select specific prior expert to follow; and
- (3) whether auditors are more likely to learn from and follow prior expert's RMM topic choice when the client firm is of higher risks.

4.2.4 Testing for relationship between textual similarity and RMM topics

To consider if inclusion of same RMM topics is associated with higher textual similarity, I conduct the following simple test using <u>firm-year observations</u>:

 $Avg_SameAuditor_Sim_score = \alpha + Same(RMM_Topic)_num + Year\ FE + Industry\ FE + \varepsilon\ (12)$ where $Same(RMM_Topic)_num$ is the variable of interest that equals to the total number of same specific RMM topics shared by a client firm and other firms audited by the same auditor in the same year. The dependent variable $Avg_SameAuditor_Sim_score$ is equal to the average RMM textual similarity score of a client firm in relation to other firms using the same auditor in the same year.

$$Avg_PriorIndExp_Sim_score = \alpha + Same(RMM_Topic)_num \text{ or } Follow(RMM_Topic)_num +$$

$$Year FE + Industry FE + \varepsilon$$
(13)



where $Same(RMM_Topic)_num$ and $Follow(RMM_Topic)_num$ are the variables of interest. $Same(RMM_Topic)_num$ equals to the total number of same specific RMM topics shared by a client firm and other same industry firms audited by a prior expert, while $Follow(RMM_Topic)_num$ equals to the total number of prior expert's RMM topics followed by a client firm. The dependent variable $Avg_PriorIndExp_Sim_score$ is equal to the average RMM textual similarity score of a client firm in relation to other firms in the same industry and audited by a prior expert.

4.3 Audit work measure

Similar to topic study measure, I read all RMM documentations, focusing on auditor's response to the seven specific RMM topics, namely *impairment*, *revenue recognition*, *provisioning*, *taxation*, *valuation*, *pension*, and *acquisition and disposal*. These topics are chosen because they are more often of auditor's risk concern and appear more frequently among the 25 RMM topics. I then manually categorize audit response to each specific RMM topic into various audit work categories. This provides me with an opportunity to examine how auditors deal with RMMs, which has been a black box previously as audit procedures have been audit firm's internal documentation and not publicly disclosed.

4.3.1 Testing for effect of the same auditor

To test whether auditor's response to specific RMMs is affected by auditor's own template, I examine and compare RMM reporting in the same year. As equations (8) and (9), the data structure for the following test is <u>pairwise firms in the same year</u>.

$$\begin{split} \Pr[Same(AuditWork)] &= \alpha + \pmb{\beta_1} Same(Auditor) + \pmb{\beta_2} Same(AuditPartner) + \beta_3 Same(Ind) + \\ & \beta_4 Diff(Size) + \beta_5 Diff(Lev) + \beta_6 Diff(ROA) + \\ & \beta_7 Diff(ExtraOrdinaryItem) + \beta_8 Diff(lnAge) + \beta_9 Diff(MA_num) + \\ & \beta_{10} Diff(NewEquity_num) + \beta_{11} Both(GC) + \beta_{12} Both(IPO) + \\ & \beta_{13} Both(Big4) + \beta_{14} Diff(AuditFirmIndExp) + \\ & \beta_{15} Diff(lnAbAuditFee) + \beta_{16} Diff(lnReportLag) + Industry FE + \varepsilon (14) \end{split}$$



where Same(Auditor) and Same(AuditPartner) are the variables of interest which take 1 if the pairwise audit reports are issued by the same audit firm (partner) and with the same specific RMM topic, and 0 otherwise. The dependent variable Same(AuditWork) is equal to 1 if the pairwise audit reports have at least one same specific audit work category in response to the specific RMM topic, and 0 otherwise.

Similar to equation (9), I control for various client firm's risk factors and auditor's characteristics which can affect audit procedures, such as industry (*Ind*), size (*Size*), leverage (*Lev*), profitability (*ROA*), amount of extraordinary items (*ExtraOrdinaryItem*), maturity (*InAge*), going concern opinion (*GC*), special events (*MA_num*, *NewEquity_num*, and *IPO*), Big 4 prestige (*Big4*), industry specialization (*AuditFirmIndExp*), abnormal audit fee (*InAbAuditFee*), and audit delay (*InReportLag*). It is expected that when client firms have more similar risks, and when auditors are of more similar characteristics, the audit work performed would be more similar. As some RMM topics are industry specific, I further include industry fixed effects to capture any omitted within-industry variation.

In addition to the general same auditor effect, I further break down the variables of interest into Both(Deloitte), Both(EY), Both(KPMG), and Both(PwC) (as well as partner levels), where $Both(\cdot)$ takes 1 if the pairwise audit reports are issued by the same specific audit firm (partner) and with the same specific RMM topic, and 0 otherwise, to determine if specific Big 4 auditors have preference in certain audit procedures.

4.3.2 Testing for effect of prior expert's audit work choice

To test whether auditor's response to specific RMMs is affected by prior expert's audit work choice, I define a firm following prior expert's audit work choice when the firm has not included a certain audit work X in response to a certain topic Y (the firm may or may not include topic Y) while the expert has included audit work X in response to topic Y in year t-1, and the firm includes audit work X in response to topic Y in year Y, as illustrated in Figure 3. It should be noted that while the



definition of following prior expert's RMM topic choice requires a new inclusion of RMM topic, the definition of following prior expert's audit work choice does not. Including a new RMM topic and relevant audit work could be due to a firm's following prior expert's RMM topic choice and audit work choice. Meanwhile, if a firm keeps the same RMM topic but changes its audit procedures, it could also be due to following prior expert's audit work choice.

[Insert Figure 3 here]

As equations (10) and (11), the data structure for the following test is <u>pairwise same</u> industry firms in consecutive years. Again, I focus merely on pairwise same industry firms in consecutive years because the indicator of firm following prior expert's audit work is always 0 for the same year pairs.

Pr[Follow(AuditWork)] =

$$\alpha + \beta_{1}PriorIndExp + \beta_{2}Diff(Size) + \beta_{3}Diff(Lev) +$$

$$\beta_{4}Diff(ROA) + \beta_{5}Diff(ExtraOrdinaryItem) + \beta_{6}Diff(lnAge) +$$

$$\beta_{7}Loss + \beta_{8}GC + \beta_{9}MA_num + \beta_{10}NewEquity_num + \beta_{11}IPO +$$

$$\beta_{12}Busy + \beta_{13}NewAuditor + \beta_{14}Same(Auditor) + \beta_{15}Both(Big4) +$$

$$\beta_{16}Diff(AuditFirmIndExp) + \beta_{17}Diff(lnAbAuditFee) +$$

$$\beta_{18}Diff(lnReportLag) + Industry FE + \varepsilon$$
(15)

where *PriorIndExp* is the variable of interest which takes 1 if the client firm is compared against a firm which is audited by a prior expert, and 0 otherwise. The dependent variable Follow(AuditWork) is equal to 1 if the client firm follows prior expert's audit work choice, and 0 otherwise.

Similar to equation (11), I control for various client firm's risk factors and auditor's characteristics which may affect audit procedures, including size (*Size*), leverage (*Lev*), profitability (*ROA*), amount of extraordinary items (*ExtraOrdinaryItem*), maturity (*lnAge*), loss (*Loss*), going concern opinion (*GC*), special events (*MA_num*, *NewEquity_num*, and *IPO*), busy audit season



(Busy), initial audit engagement (NewAuditor), whether the client firm has the same auditor as the compared firm (Same(Auditor)), Big 4 prestige (Big4), industry specialization (AuditFirmIndExp), abnormal audit fee (lnAbAuditFee), and audit delay (lnReportLag). Since the data consists of pairwise same industry firms, serial correlation within an industry may exist in the data. I thus include industry fixed effects to capture any omitted within-industry variation.

In order to further understand auditors' tendency to learn from and follow prior expert's audit work choice under various conditions, I conduct the following additional tests:

- (1) whether Non-Big 4 auditors are more likely to follow prior expert's audit work choice;
- (2) whether auditors select specific prior expert to follow; and
- (3) whether auditors are more likely to learn from and follow prior expert's audit work choice when the client firm is of higher risks.

4.4 Additional testing of new client acceptance

An additional analysis of the effects of accepting a new client on the ongoing clients' RMM auditing and reporting, and vice versa, would shed some lights on the mechanism of learning. On the one hand, it is expected that the auditor would apply the audit firm's own template on the new client's current RMM auditing and reporting. On the other hand, it is also expected that the auditor would pay more attention to the new client's prior RMM reporting and learn the wordings, the identification of RMM topics and the audit work.

4.4.1 Testing for effects of ongoing clients on new client's RMM auditing and reporting

To test whether auditor applies audit firm's own template on the new client and thus affecting its current RMM wordings, RMM topics and audit response, I focus on firms which have an auditor change and examine and compare their RMM reporting with other same industry firms in the prior year. The data structure for these tests is <u>pairwise same industry firms in consecutive years and</u> current-year firms are restricted to have an auditor change, as illustrated in Figure 4A.

[Insert Figure 4A here]



 $Sim_score = \beta_{1}Same(NewAuditor) + \beta_{2}Same(OldAuditor) + \beta_{3}OtherAuditor +$ $\beta_{4}Diff(Size) + \beta_{5}Diff(Lev) + \beta_{6}Diff(ROA) + \beta_{7}Diff(ExtraOrdinaryItem) +$ $\beta_{8}Diff(lnAge) + \beta_{9}Both(Big4) + \beta_{10}Diff(AuditFirmIndExp) +$ $\beta_{11}Diff(lnAbAuditFee) + \beta_{12}Diff(lnWordcount) + \beta_{13}Note_Sim_score +$ $Year FE + Industry FE + Auditor FE + \varepsilon$ (16)

where Same(NewAuditor), Same(OldAuditor) and OtherAuditor are the variables of interest. Same(NewAuditor) takes 1 if the client firm is compared against a firm with the same auditor in current year (i.e. year t), and 0 otherwise. Considering that the client firm is restricted to have an auditor change, therefore, from auditor's perspective, the client firm is the "new client" while the compared firm with the same auditor in current year is the "ongoing client." Same(OldAuditor) takes 1 if the client firm is compared against a firm with the same auditor in prior year (i.e. year t-1), and 0 otherwise. Thus, the compared firm is the client of the outgoing auditor. OtherAuditor takes 1 if it is any other case, and 0 otherwise. If auditor applies audit firm's own template on the new client, it is expected that the coefficient for Same(NewAuditor) is stronger than those for Same(OldAuditor) and OtherAuditor.

Similar to equation (6), I control for various client firm's risk factors and auditor's characteristics which may affect RMM reporting, such as size (Size), leverage (Lev), profitability (ROA), amount of extraordinary items (ExtraOrdinaryItem), maturity (lnAge), Big 4 prestige (Big4), industry specialization (AuditFirmIndExp), and abnormal audit fee (lnAbAuditFee). Besides, I control for the RMM documentation length (lnWordcount) as well as the similarity of management's disclosure on accounting policies (Note_Sim_score). Since the data consists of pairwise same industry firms, serial correlation within an industry may exist in the data. I thus include industry fixed effects to capture any omitted within-industry variation. In addition, I include auditor fixed effects to capture any omitted within-auditor variation because there may be serial correlation within an auditor in the data.



To determine if auditor applies its own template on the new client and affects the new client's current RMM topic choice, I define the new client following ongoing clients' prior RMM topic choice when the new client has not included a certain topic X while the ongoing clients have included topic X in year t-1, and the new client includes topic X in year t, as illustrated in Figure 4B.

[Insert Figure 4B here]

$$Pr[Follow(SNA_RMM_Topic)] = \alpha + \beta_1 Same(NewAuditor) + \beta_2 Diff(Size) + \beta_3 Diff(Lev) + \beta_4 Diff(ROA) + \beta_5 Diff(ExtraOrdinaryItem) + \beta_6 Diff(lnAge) + \beta_7 Loss + \beta_8 GC + \beta_9 MA_num + \beta_{10} NewEquity_num + \beta_{11} Busy + \beta_{12} Both(Big4) + \beta_{13} Diff(AuditFirmIndExp) + \beta_{14} Diff(lnAbAuditFee) + \beta_{15} Diff(lnReportLag) + Industry FE + \varepsilon$$

$$(17)$$

where Same(NewAuditor) is the variable of interest which takes 1 if the client firm is compared against a firm with the same auditor in current year (i.e. year t), and 0 otherwise. The dependent variable $Follow(SNA_RMM_Topic)$ is equal to 1 if the client firm follows ongoing clients' prior RMM topic choice, and 0 otherwise.

Similar to equation (11), I control for various client firm's risk factors and auditor's characteristics which may affect auditor's risk assessment, including size (*Size*), leverage (*Lev*), profitability (*ROA*), amount of extraordinary items (*ExtraOrdinaryItem*), maturity (*lnAge*), loss (*Loss*), going concern opinion (*GC*), special events (*MA_num, NewEquity_num*), busy audit season (*Busy*), Big 4 prestige (*Big4*), industry specialization (*AuditFirmIndExp*), abnormal audit fee (*lnAbAuditFee*), and audit delay (*lnReportLag*). Since the data consists of pairwise same industry firms, serial correlation within an industry may exist in the data. I thus include industry fixed effects to capture any omitted within-industry variation.



Likewise, to determine if auditor applies its own template on the new client and affects the new client's current audit work choice, I define the new client following ongoing clients' prior audit work choice when the new client has not included a certain audit work X in response to a certain topic Y (the new client may or may not include topic Y) while the ongoing clients have included audit work X in response to topic Y in year t-1, and the new client includes audit work X in response to topic Y in year t, as illustrated in Figure 4C.

[Insert Figure 4C here]

$$Pr[Follow(SNA_AuditWork)] = \alpha + \beta_1 Same(NewAuditor) + \beta_2 Diff(Size) + \beta_3 Diff(Lev) +$$

$$\beta_4 Diff(ROA) + \beta_5 Diff(ExtraOrdinaryItem) +$$

$$\beta_6 Diff(lnAge) + \beta_7 Loss + \beta_8 GC + \beta_9 MA_num +$$

$$\beta_{10} NewEquity_num + \beta_{11} Busy + \beta_{12} Both(Big4) +$$

$$\beta_{13} Diff(AuditFirmIndExp) + \beta_{14} Diff(lnAbAuditFee) +$$

$$\beta_{15} Diff(lnReportLag) + Industry FE + \varepsilon$$
(18)

where Same(NewAuditor) is the variable of interest which takes 1 if the client firm is compared against a firm with the same auditor in current year (i.e. year t), and 0 otherwise. The dependent variable $Follow(SNA_AuditWork)$ is equal to 1 if the client firm follows ongoing clients' prior audit work choice, and 0 otherwise.

Similar to equation (15), I control for various client firm's risk factors and auditor's characteristics which may affect audit procedures, such as size (*Size*), leverage (*Lev*), profitability (*ROA*), amount of extraordinary items (*ExtraOrdinaryItem*), maturity (*lnAge*), loss (*Loss*), going concern opinion (*GC*), special events (*MA_num, NewEquity_num*), busy audit season (*Busy*), Big 4 prestige (*Big4*), industry specialization (*AuditFirmIndExp*), abnormal audit fee (*lnAbAuditFee*), and audit delay (*lnReportLag*). Since the data consists of pairwise same industry firms, serial correlation within an industry may exist in the data. I thus include industry fixed effects to capture any omitted within-industry variation.



4.4.2 Testing for effects of new client on ongoing clients' RMM auditing and reporting

To test whether auditor pays more attention to the new client's prior RMM reporting and learns from it, I focus on firms which do not have an auditor change and examine and compare their RMM reporting with other same industry firms in the prior year. The data structure for these tests is pairwise same industry firms in consecutive years and current-year firms are restricted to have no auditor change while prior-year firms are restricted to have a different auditor from those of current-year firms, as illustrated in Figure 5A.

[Insert Figure 5A here]

$$Sim_score = \beta_{1}Same(CurrentAuditor) + \beta_{2}OtherAuditor + \beta_{3}Diff(Size) + \beta_{4}Diff(Lev) +$$

$$\beta_{5}Diff(ROA) + \beta_{6}Diff(ExtraOrdinaryItem) + \beta_{7}Diff(lnAge) + \beta_{8}Both(Big4) +$$

$$\beta_{9}Diff(AuditFirmIndExp) + \beta_{10}Diff(lnAbAuditFee) + \beta_{11}Diff(lnWordcount) +$$

$$\beta_{12}Note_Sim_score + Year FE + Industry FE + Auditor FE + \varepsilon$$

$$(19)$$

where *Same*(*CurrentAuditor*) and *OtherAuditor* are the variables of interest.

Same(CurrentAuditor) takes 1 if the client firm is compared against a firm with the same auditor in current year (i.e. year t), and 0 otherwise. Considering that the client firm is restricted to have no auditor change, therefore, from auditor's perspective, the client firm is the "ongoing client" while the compared firm with the same auditor in current year is the "new client." OtherAuditor takes 1 if it is any other case, and 0 otherwise. If auditor learns from the new client, it is expected that the coefficient for Same(CurrentAuditor) is stronger than that for OtherAuditor.

Similar to equation (6), I control for various client firm's risk factors and auditor's characteristics which may affect RMM reporting. Besides, I control for the RMM documentation length as well as the similarity of management's disclosure on accounting policies. Since the data consists of pairwise same industry firms, serial correlation within an industry may exist in the data. I thus include industry fixed effects to capture any omitted within-industry variation. In addition, I



include auditor fixed effects to capture any omitted within-auditor variation because there may be serial correlation within an auditor in the data.

To determine if auditor learns from the new client and affects its ongoing clients' current RMM topic choice, I define the ongoing clients following new client's prior RMM topic choice when the ongoing clients have not included a certain topic X while the new client has included topic X in year t-1, and the ongoing clients include topic X in year t, as illustrated in Figure 5B.

[Insert Figure 5B here]

 $Pr[Follow(SCA_RMM_Topic)] =$

$$\alpha + \beta_{1}Same(CurrentAuditor) + \beta_{2}Diff(Size) +$$

$$\beta_{3}Diff(Lev) + \beta_{4}Diff(ROA) + \beta_{5}Diff(ExtraOrdinaryItem) +$$

$$\beta_{6}Diff(lnAge) + \beta_{7}Loss + \beta_{8}GC + \beta_{9}MA_num +$$

$$\beta_{10}NewEquity_num + \beta_{11}IPO + \beta_{12}Busy + \beta_{13}Both(Big4) +$$

$$\beta_{14}Diff(AuditFirmIndExp) + \beta_{15}Diff(lnAbAuditFee) +$$

$$\beta_{16}Diff(lnReportLag) + Industry FE + \varepsilon$$
(20)

where Same(CurrentAuditor) is the variable of interest which takes 1 if the client firm is compared against a firm with the same auditor in current year (i.e. year t), and 0 otherwise. The dependent variable $Follow(SCA_RMM_Topic)$ is equal to 1 if the client firm follows new client's prior RMM topic choice, and 0 otherwise.

Similar to equation (11), I control for various client firm's risk factors and auditor's characteristics which may affect auditor's risk assessment. Since the data consists of pairwise same industry firms, serial correlation within an industry may exist in the data. I thus include industry fixed effects to capture any omitted within-industry variation.

Likewise, to determine if auditor learns from the new client and affects its ongoing clients' current audit work choice, I define the ongoing clients following new client's prior audit work choice when the ongoing clients have not included a certain audit work *X* in response to a certain



topic Y (the ongoing clients may or may not include topic Y) while the new client has included audit work X in response to topic Y in year t-1, and the ongoing clients include audit work X in response to topic Y in year t, as illustrated in Figure 5C.

[Insert Figure 5C here]

 $Pr[Follow(SCA_AuditWork)] =$

$$\alpha + \beta_{1}Same(CurrentAuditor) + \beta_{2}Diff(Size) +$$

$$\beta_{3}Diff(Lev) + \beta_{4}Diff(ROA) + \beta_{5}Diff(ExtraOrdinaryItem) +$$

$$\beta_{6}Diff(lnAge) + \beta_{7}Loss + \beta_{8}GC + \beta_{9}MA_num +$$

$$\beta_{10}NewEquity_num + \beta_{11}IPO + \beta_{12}Busy + \beta_{13}Both(Big4) +$$

$$\beta_{14}Diff(AuditFirmIndExp) + \beta_{15}Diff(lnAbAuditFee) +$$

$$\beta_{16}Diff(lnReportLag) + Industry FE + \varepsilon$$
(21)

where Same(CurrentAuditor) is the variable of interest which takes 1 if the client firm is compared against a firm with the same auditor in current year (i.e. year t), and 0 otherwise. The dependent variable $Follow(SCA_AuditWork)$ is equal to 1 if the client firm follows new client's prior audit work choice, and 0 otherwise.

Similar to equation (15), I control for various client firm's risk factors and auditor's characteristics which may affect audit procedures. Since the data consists of pairwise same industry firms, serial correlation within an industry may exist in the data. I thus include industry fixed effects to capture any omitted within-industry variation.

4.5 Consequences testing

4.5.1 Testing for effects on audit fees and audit delay

Thus far, I have examined how RMM auditing and reporting is affected by auditor's own template and by prior expert. I have also studied a scenario in which an auditor accepts a new client and examined how ongoing clients' (new client's) prior RMM reporting affects the new client's (ongoing clients') current RMM auditing and reporting. To complete the analysis, it is necessary to



investigate how such template or learning from expert would benefit auditors. I therefore test the effects of RMM textual similarity, as well as following prior expert's RMM topic choice or audit work choice, on audit fees and audit delay respectively. The data structure for these tests is firm-year observations.

$$\begin{split} lnAuditFee\ or \\ lnReportLag \end{split} = \alpha + \pmb{\beta_1} Avg_SameAuditor_Sim_score + \pmb{\beta_2} Avg_PriorIndExp_Sim_score + \\ \beta_3 Size + \beta_4 Lev + \beta_5 ROA + \beta_6 Loss + \beta_7 ExtraOrdinaryItem + \beta_8 GC + \\ \beta_9 MA_num + \beta_{10} NewDebt_num + \beta_{11} NewEquity_num + \beta_{12} Busy + \beta_{13} Big4 + \\ \beta_{14} NewAuditor + \beta_{15} AuditFirmIndExp + \beta_{16} lnReportLag\ or\ lnAbAuditFee + \\ \beta_{17} Avg_SameAuditor_Note_Sim_score + \\ \beta_{18} Avg_PriorIndExp_Note_Sim_score + \beta_{19} RMM_Note_Sim_score + \\ Year\ FE + Industry\ FE + Auditor\ FE + \varepsilon \end{split} \tag{22}$$

where $Avg_SameAuditor_Sim_score$ and $Avg_PriorIndExp_Sim_score$ are the variables of interest. $Avg_SameAuditor_Sim_score$ is equal to the average RMM textual similarity score of a client firm in relation to other firms using the same auditor in the same year, while $Avg_PriorIndExp_Sim_score$ is equal to the average RMM textual similarity score of a client firm in relation to other firms in the same industry and audited by a prior expert.

where *Follow*(*RMM_Topic*) is the variable of interest which is equal to 1 if the client firm follows prior expert's RMM topic choice, and 0 otherwise.



 $\frac{lnAuditFee\ or}{lnReportLag} =$

 $\alpha + \beta_{1}Follow(Spec_7_RMM_Topic) + \beta_{2}Follow(AuditWork) +$ $\beta_{3}Follow(Spec_7_RMM_Topic) * Follow(AuditWork) + \beta_{4}Size + \beta_{5}Lev +$ $\beta_{6}ROA + \beta_{7}Loss + \beta_{8}ExtraOrdinaryItem + \beta_{9}GC + \beta_{10}MA_num +$ $\beta_{11}NewDebt_num + \beta_{12}NewEquity_num + \beta_{13}Busy + \beta_{14}Big4 +$ $\beta_{15}NewAuditor + \beta_{16}AuditFirmIndExp + \beta_{17}lnReportLag or lnAbAuditFee +$ $Year FE + Industry FE + \varepsilon$ (24)

where $Follow(Spec_7_RMM_Topic)$ takes 1 if the client firm follows prior expert to include any one of the seven specific RMM topics (i.e. impairment, revenue recognition, provisioning, taxation, valuation, pension, and acquisition and disposal), and 0 otherwise; Follow(AuditWork) takes 1 if the client firm follows prior expert's audit work choice, and 0 otherwise; and $Follow(Spec_7_RMM_Topic) * Follow(AuditWork)$ is the variable of interest.

I control for various audit risks which may affect audit fees or audit delay following prior studies (such as Simunic 1980; Ashton, Willingham, and Elliott 1987; Ettredge, Li, and Sun 2006; Ghosh and Lustgarten 2006; Hay et al. 2006; Higgs and Skantz 2006; Pizzini, Lin, and Ziegenfuss 2015). These include client firm's risk factors like size (Size), leverage (Lev), profitability (ROA), loss (Loss), amount of extraordinary items (ExtraOrdinaryItem), going concern opinion (GC), number of mergers and acquisitions (MA_num), number of new debt issuances (NewDebt_num), and number of new equity issuances (NewEquity_num). Auditor's characteristics are also controlled for, for instance, busy audit season (Busy), Big 4 prestige (Big4), initial audit engagement (NewAuditor), industry specialization (AuditFirmIndExp), and audit delay (lnReportLag) (or abnormal audit fee (lnAbAuditFee)¹⁹). I also include auditor and industry fixed effects to capture any omitted within-auditor and within-industry variation.

¹⁹ Please refer to footnote 15. I have adopted lnAuditFee as a replacement of lnAbAuditFee, and the results are robust.

When testing the effect of RMM textual similarity on audit fees and audit delay, I further include two financial statements-related controls. The first is the average management's accounting policies disclosure textual similarity of a client firm in relation to other firms using the same auditor in the same year, or to other same industry firms audited by a prior expert (Avg_SameAuditor_Note_Sim_score or Avg_PriorIndExp_Note_Sim_score), which may reflect management's view on inherent risks. The second is the textual similarity between RMM documentation and management's disclosure on accounting policies of a client firm (RMM_Note_Sim_score). Although not the focus of interest, RMM_Note_Sim_score could bring some interesting insight about how auditor's shirking may affect audit fees or audit delay. Maintaining firm-wide RMM reporting template or learning from expert's wordings can either be auditor's additional effort to provide better quality audit or simply be auditor's shirking behavior. However, if auditor's RMM documentation is very similar to management's accounting policies disclosure, then it is more likely that auditors have shirked from their responsibility.

As an additional test, I examine how textual similarity of prior RMM documentations (i.e. textual similarity of RMM reporting of the same client firm between year t-1 and year t-2) affects current (year t) audit planning. If RMM documentations of the same client firm have remained similar in prior years, it may indicate that the client risks have remained similar. Therefore, auditor may exert less effort in auditing, leading to lower audit fees and shorter audit delay. On the other hand, if auditor has shirked in year t-1 and copied RMM reporting as year t-2, it is expected that audit fees would be higher and audit delay would be longer because auditor would take up additional audit risks and exert additional audit effort.

4.6 Sample selection

ISA (UK and Ireland) 700 is applicable for companies with a premium listing of equity shares on the LSE (FRC 2013a). As such, I start with the listing of the LSE companies and eliminate those



companies without a premium listing and those investment funds with a premium listing²⁰. My sample period covers fiscal year end from 30 September 2013 to 31 December 2016. The number of unique firms during the sample period is shown in Table 1.

I collect annual reports for each company from their corporate websites and Companies House²¹. I extract auditor's report from each annual report and read and manually code audit data statistics (for instance, name of the auditor and audit partner, location of audit office, number of RMMs disclosed, materiality amount, audit fee, and audit report date). I then manually extract RMM documentation from each audit report, as well as management's disclosure on accounting policies from each annual report. RMM topics are manually categorized into 25 topics, and auditor's response to the seven specific RMM topics, namely *impairment*, *revenue recognition*, *provisioning*, *taxation*, *valuation*, *pension*, and *acquisition and disposal*, are further categorized into various audit work categories. Fundamental financial data is obtained from Compustat Global Fundamentals Annual file, while data of mergers and acquisitions, and issuances of new debt/ equity is obtained from Thomson Reuters Securities Data Company (SDC) database. The resulting sample size is 1,286 firm-year observations as presented in Table 1. Textual similarities are generated from any mixand-match pairwise observations. Appendix A provides examples of "more similar" and "less similar" RMM reporting.

[Insert Table 1 here]

²¹ Companies House is a central depository where every company incorporated in the UK is required to file its annual report. Since annual reports available at Companies House are scanned copies and are of lower resolution, I collect annual reports from each corporate website unless the firm does not maintain a website, or that no annual report is available on the website.



²⁰ The listing of the LSE companies is available from: http://www.londonstockexchange.com/statistics/companies-and-issuers.htm. I use the listing available as at 28 February 2017.

5. Results

5.1 Textual similarity measure

5.1.1 Textual similarity trend

Before performing regression tests, I first examine textual similarity trend of RMM documentations in a constant sample across years. Figure 6A illustrates the textual similarity trend (measured by the mean of *Sim_score*) of RMM reporting by the same auditor, while Figure 6B illustrates the textual similarity trend of RMM reporting among different auditors. From Figure 6A, it is found that most Big 4 auditors (except EY) have the highest textual similarity in 2013, and the similarity gradually decreases in the following years²². EY, on the other hand, has an increasing trend of textual similarity along the years. Figure 6B shows that Big 4 auditors have an increasing trend of textual similarity in relation to other auditors' RMM reporting. Together, it is consistent with the proposition that in the first year of ISA (UK and Ireland) 700 implementation, auditors would set up firm-wide RMM reporting template, leading to higher similarity within the same auditor in 2013. Afterwards, auditors would learn from and follow prior expert's wordings to improve reporting quality. Therefore, textual similarity within the same auditor decreases, while that among different auditors increases in the following years.

[Insert Figures 6A and 6B here]

To exclude the industry-wide characteristics which may affect RMM reporting and lead to a more similar trend among different auditors, I further examine textual similarity trend of RMM reporting in a constant sample of same industry firms by the same auditor (among different auditors). The sample size is shrunken significantly, from 18,252 to 3,332 observations for the same auditor comparison, and from 86,504 to 14,888 observations for different auditors comparison. As seen from Figures 7A and 7B, the textual similarity trends remain similar to those of Figures 6A and 6B.

²² Non-Big 4 auditors have a similar trend as Big 4 auditors although the trend is smoother. It is probably due to limited observations of Non-Big 4 auditors. Please refer to Figures 6A and 6B for further details.



[Insert Figures 7A and 7B here]

One of the reasons why EY has a different trend than other Big 4 auditors is that EY may have a more centralized internal control system, thus keeping the upward trend of textual similarity along the years. Another possible reason is that EY's clients have been concentrated in certain industries. Table 2 presents each auditor's market share (measured by number of clients) in each industry, and Figure 8 is a bar chart illustrating the result. Unlike other Big 4 auditors which have a more diverse client sources, it is shown that EY has more clients in Oil & Gas and Technology industries (41.67% and 30% respectively). This may be a reason leading to the outlier trend of EY.

[Insert Table 2 and Figure 8 here]

Next, I test whether there is significant difference in RMM reporting template effect from different auditors by conducting an ANOVA test for the mean of RMM textual similarity within the same auditor. Panel A of Table 3 shows that PwC has the highest average RMM textual similarity, followed by EY, KPMG, and Deloitte. Non-Big 4 auditors consist of various different auditors, thus it is not surprising that the average RMM textual similarity is the lowest. Panel B of Table 3 presents the ANOVA result, while Panel C compares pairs of individual groups. Both Panels B and C support that the average RMM textual similarities of different auditor groups are significantly different, suggesting that each auditor would have its own RMM reporting template.

[Insert Table 3 here]

5.1.2 Testing for effect of auditor's firm-wide template

Turning to regression analysis, Panel A of Table 4 reports the descriptive statistics of variables used in testing RMM documentations in the same year. The mean of RMM textual similarity is around 7.4²³. There are around 23% of pairwise audit reports written by the same auditor. Among these, around 7% are from KPMG and PwC respectively, 6% from Deloitte and only 2% from EY. The low

²³ I have performed tests using textual similarity of the whole audit report. The mean of whole report textual similarity is around 80.3. The significantly higher score is expected since there are some standardized parts in auditor's report. Regression results for whole report textual similarity are similar to those of RMM textual similarity. In the horseracing regression model testing specific Big 4 auditors' template effect, it is found that Deloitte has the strongest firm-wide effect, followed by EY, PwC and KPMG. Regression results are not reported for brevity.



proportion for EY is due to the smaller client pool of EY. From Table 2, it is shown that EY has roughly half the number of clients compared to other Big 4 auditors. Overall, pairwise audit reports both issued by Big 4 auditors constitute about 87%. This is consistent with prior studies (such as Gutierrez et al. 2018; Lennox et al. 2018) that Big 4 auditors cover over 90% of the sample firms.

Panel B of Table 4 shows that there is auditor's template effect on RMM documentation after controlling for client firm's risk factors as well as auditor's characteristics. Besides, audit reports issued by the same audit partner tend to be more similar, and this effect remains after considering auditor's firm-wide template and office-level effect. In Column (4), it is shown that RMM textual similarity of audit reports issued by the same auditor is roughly 2.8 score points higher than that of those issued by different auditors, and RMM textual similarity of audit reports issued by the same audit partner is additionally around 2 score points higher. It is expected because each audit partner should have his own reporting style. Meanwhile, although audit reports issued by the same audit office tend to be more similar, this effect no longer exists when auditor's firm-wide template and audit partner's style are considered. It suggests that RMM reporting template is likely a firm-wide quality control and that there is no office-level template.

Next, in regard to specific Big 4 auditors' template effect, it demonstrates that EY has the strongest firm-wide effect. RMM textual similarity of audit reports both issued by EY is around 4.3 score points higher than others, while that of those issued by PwC is around 3.8 score points higher, by KPMG around 2.3 score points higher, and by Deloitte around 2.2 score points higher. Similar to same auditor-office-partner result in Column (4), Column (8) shows that Big 4 partners remain to have a style effect on RMM reporting after considering firm-wide template and office-level effect. On the other hand, most of Big 4 office-level effect disappears (except KPMG) once firm-wide template and audit partner's style are considered.

Finally, results of control variables are as expected: when there is greater difference (similarity) between client firm's risk factors, or when there is greater difference (similarity)



between auditor's characteristics, RMM documentation is more likely to differ (be similar) as well. For instance, in Column (1), one unit of absolute difference in firm size will drive down around 0.1 score points in RMM textual similarity, while that in leverage will drive down around 0.5 score points, in ROA will drive down around 1.8 score points, and in abnormal audit fee will drive down around 0.4 score points. On the other hand, when the two firms are in the same industry, or when their notes of financial statements are similar, RMM textual similarity will be driven up by roughly 1 and 0.3 score points respectively.

Panel C of Table 4 provides a time-series investigation of auditor's RMM reporting template effect. I break down the variables of interest (Same(Auditor), Same(AuditOffice), Same(AuditPartner), Both(Deloitte), Both(EY), Both(KPMG), and Both(PwC)) into time series, i.e. each variable of interest is divided into specific year, where $Same(\cdot)13$ ($Both(\cdot)13$) indicates that the variable of interest is for the year 2013, and so forth. Similar to the earlier trend analyses, auditor's firm-wide template effect is the strongest in 2013 and gradually decreases in the following years. Meanwhile, auditor's office-level effect and audit partner's style effect are the weakest in 2013, and increase afterwards. F-tests also support these results. In the meantime, time-series testing of specific Big 4 auditors' template effect shows a consistent result as the earlier trend analyses. First, firm-wide effect of PwC in 2013 is extremely higher than other auditors (at least double the coefficient). Second, most auditors (except EY) have a decreasing firm-wide effect trend.

Finally, in Column (4), I investigate the RMM textual similarity trend of the same industry firms issued by the same auditor versus by different auditors. I denote variables of interest as Same(IndSame(Auditor)) and Same(IndDiff(Auditor)), where Same(IndSame(Auditor)) takes 1 if the pairwise audit reports are from the same industry and issued by the same auditor, and 0 otherwise; whereas Same(IndDiff(Auditor)) takes 1 if the pairwise audit reports are from the same industry and issued by different auditors, and 0 otherwise. The two variables of interest are then broken down into time series as abovementioned. The result in Column (4) indicates that



RMM textual similarity of the same industry firms issued by the same auditor declines along the years, while that among different auditors increases. Again, it is consistent with the earlier trend analyses. Together, it provides some evidence supporting the proposition that in the first year of ISA (UK and Ireland) 700 adoption, auditors would set up firm-wide RMM reporting template, leading to higher similarity within the same auditor in 2013. Thereafter, auditors would learn from and follow prior expert's wordings to improve audit and reporting quality, thus reducing textual similarity within the same auditor and increasing textual similarity among different auditors.

[Insert Table 4 here]

In the second approach to examine how RMM reporting is affected by auditor's own template, I concentrate on pairwise audit reports of the same client firm in consecutive years (i.e. year t and year t-1)²⁴. Specifically, since a company's operation or risk factors seldom change significantly year-by-year, a significant change in RMM documentation brought by an auditor change would further support that the RMM reporting change is due to different auditors' templates rather than change in the client firm's risks. Panel A of Table 5 reports the descriptive statistics. The mean of RMM textual similarity of the same client firm in consecutive years is much higher (around 64.6) compared to that of pairwise audit reports in the same year (around 7.4)²⁵. As mentioned, a company's operation and risks do not change frequently, thus RMM documentation of the same client firm should remain similar throughout the years. Auditor change consists of around 8% of the sample, while audit office change in addition to audit firm change only consists of around 2% of the sample. It is because most of audit firms are located in London (Basioudis and Francis 2007). On the other hand, audit partner rotation in the same audit firm is more frequent and consists of around 18% of the sample.

²⁵ I have performed tests using textual similarity of the whole audit report. The mean of whole report textual similarity is around 93.7. Regression results for whole report textual similarity are similar to those of RMM textual similarity although the coefficients are in general less negative. Regression results are not reported for brevity.



 $^{^{24}}$ I also relax the one-year restriction and extend the sample to include pairwise audit reports of the same client firm in different years (such as year t and year t-2, and year t-3). Sample size is increased by 714 to 1,603 and results remain robust. Regression results are not presented for brevity.

Panel B of Table 5 demonstrates that an auditor change brings significant RMM reporting change after controlling for client firm's risk factors as well as auditor's characteristics. A change in audit firm decreases RMM textual similarity by roughly 27.9 score points, while a change in audit office in addition to audit firm change decreases RMM textual similarity by roughly 26.8 score points, and a change in audit partner in addition to audit firm change decreases RMM textual similarity by roughly 29.7 score points. To further distinguish that RMM documentation change is primarily driven by audit firm's own template instead of audit partner's reporting style, I investigate if an audit office/ partner rotation in the same audit firm would bring any change to RMM reporting. By definition, the variable of interest *Change*(*AuditOffice*) in Column (2) takes 1 when there is a change in audit firm as well as audit office, while the variable of interest Same(FirmChange(Off)) in Column (4) takes 1 when there is an audit office rotation within the same audit firm. Similarly, the variable of interest *Change(AuditPartner)* in Column (3) takes 1 when there is a change in audit firm as well as audit partner, whereas the variable of interest Same(FirmChange(Ptn)) in Column (5) takes 1 when there is an audit partner rotation within the same audit firm. Therefore, the main difference between these variables is that Change(AuditOffice) and Change(AuditPartner) include the effect of different audit firms, but Same(FirmChange(Off)) and Same(FirmChange(Ptn)) do not. Results in Columns (4) and (5) show that the effect of different offices (partners) from the same audit firm is insignificant on RMM documentation, suggesting that office (partner) level is of relatively less importance in influencing RMM reporting.

Panel C of Table 5 provides a time-series examination of auditor change's effect. The variables of interest are broken down into time series as mentioned earlier. Similar to the earlier trend analyses, differentiation in RMM documentation brought by different auditors (whether at audit firm, office, or partner level) decreases along the years. That is, RMM textual similarity increases among different auditors as time goes by.



[Insert Table 5 here]

To summarize, the above two approaches provide support that RMM documentation is affected by auditor's firm-wide template. In addition, audit partner's writing style has an incremental effect on RMM reporting, whereas audit office-level incremental effect disappears once auditor's firm-wide template is considered. However, audit firm's own template remains the dominant factor in influencing RMM reporting. On the other hand, the time-series analyses provide some evidence supporting the proposition that in the first year of ISA (UK and Ireland) 700 implementation, auditors would set up firm-wide RMM reporting template, and afterwards, auditors would learn from and follow prior expert's wordings to improve audit and reporting quality. As a result, the auditor's firm-wide template effect is the strongest in 2013, and it gradually decreases hereafter. Meanwhile, textual similarity among different auditors increases in the following years. Next, I shall continue the study by examining if RMM documentation is affected by prior expert's wordings.

5.1.3 Testing for effect of prior expert's wordings

Appendix A provides an example of a fellow auditor following expert's RMM reporting. To test whether RMM documentation is indeed affected by prior expert's wordings, I examine pairwise audit reports of the same industry firms in both the same year (i.e. year t and year t) as well as prior and current years (i.e. year t and year t-1). The reason to include pairwise same industry firms in the same year in the data structure is that there remains doubt that auditors may follow each other's current writing style. As seen from the results of Table 4, RMM reporting style can be affected by auditor's own template in the same year. Thus, by including pairwise same industry firms in the same year as sample, if the effect of prior expert's wordings remains significant, it would provide stronger evidence that prior expert plays a role in RMM reporting. Panel A of Table 6 reports the descriptive statistics. Distribution of observations of the same year versus prior and



current years is roughly 4:6. The mean of RMM textual similarity is roughly 8.8²⁶. There is around 20% of the sample paired with an audit report issued by a prior expert.

Panel B of Table 6 shows that RMM documentation is affected by prior expert's wordings after controlling for client firm's risk factors as well as auditor's characteristics. Besides, the coefficient for Same(Year) is insignificant, indicating that prior expert indeed affects RMM reporting.

Panel C of Table 6 provides a time-series investigation of prior expert's effect. The variable of interest is broken down into time series as mentioned earlier. It is found that the effect is the strongest when expanded auditor's report is first publicly available in 2014, and the effect becomes much weaker in the following years. There could be two reasons for this result. First, a company's operation and inherent risks seldom have significant change frequently. Thus, after industry audit expert discovers and records client firm's risks in RMM reporting in the first year, there may not be any new risk in the next year. Second, Table 7 reveals that there is not a frequent change in industry audit expert. For instance, from 2013 to 2014, there is only change in expert in Utilities industry (i.e. there is change in prior expert in Utilities industry from 2014 to 2015). Hence, expert's wordings do not fluctuate significantly year-by-year due to auditor's own template effect.

[Insert Tables 6 and 7 here]

To further understand auditors' tendency to learn from and follow prior expert's reporting under various conditions, I conduct several cross-sectional tests. When testing if Non-Big 4 auditors are more likely to follow prior expert's wordings, please be reminded that Non-Big 4 auditors have a very small overall market share (only around 7% of the sample) and that Non-Big 4 auditors are a

²⁶ I have performed tests using textual similarity of the whole audit report. The mean of whole report textual similarity is around 80.7. Regression results for whole report textual similarity are similar to those of RMM textual similarity but lack significance. It could be the case that auditors usually learn from and follow prior expert's wordings for RMM documentation, and the remaining parts of audit report are standardized and are more affected by auditor's firm-wide template. Regression results are not reported for brevity.



group of various audit firms²⁷. Therefore, in order to increase testing power, I specifically look at Basic Materials industry in which Non-Big 4 auditors have a slightly bigger market share (around 12% of the sample), as well as Grant Thornton and BDO (the two biggest players in Non-Big 4 auditors, comprising of around 3% of the sample respectively)²⁸. Panel A of Table 8 supports that Non-Big 4 auditors tend to follow prior expert's wordings more. The interactive coefficients for Basic Materials industry (PriorIndExp*NonBig4*BasicMat), Grant Thornton (PriorIndExp*GT), and BDO (PriorIndExp*BDO) are all positive although it lacks significance for BDO.

Panel B of Table 8 shows that auditors select prior expert to follow. It presents that when the prior expert is Deloitte, KPMG, or PwC, there is a significantly positive effect on RMM textual similarity. Yet, result is negative and insignificant when the prior expert is EY. F-tests also indicate that the coefficient for $PriorIE_EY$ is significantly weaker than those for $PriorIE_Deloitte$, $PriorIE_KPMG$, or $PriorIE_PwC$. It seems to coincide with prior studies (Fisher and Deans 2014; Reid et al. 2015) that audit reports issued by EY are the least useful, such that auditors are less likely to follow when the prior expert is EY.

Panel C of Table 8 demonstrates how client firm's risk factors affect auditors' tendency to learn from and follow prior expert's wordings. Particularly, I investigate the effect of prior expert when the risks are concerned with the client firm only, versus when the risks are concerned with both the client firm and the firm audited by the prior expert. On the one hand, in Columns (1) and (2), when the client firm is of small size (i.e. bottom tertile), or when the client firm but not the firm audited by prior expert has issued new equity, auditors are less likely to follow prior expert's

²⁸ According to Table 2, Non-Big 4 auditors have a market share (measured by number of clients) of around 13% in Basic Materials industry. In this test where the sample size is 114,172 (Panel A of Table 6) and the observations of Basic Materials industry is 3,739, Non-Big 4 auditors comprise of around 12% in Basic Materials industry. Meanwhile, Grant Thornton and BDO have market shares (measured by number of clients) of around 2% and 3% respectively. In this test where the sample size is 114,172 (Panel A of Table 6), Grant Thornton and BDO both comprise of around 3%.



²⁷ According to Table 2, Non-Big 4 auditors have a market share (measured by number of clients) of around 7%. In this test where the sample size is 114,172 (Panel A of Table 6), Non-Big 4 auditors comprise of around 7%.

wordings²⁹. On the other hand, in Columns (3) and (4), when both the client firm and the firm audited by prior expert have undergone mergers and acquisitions, or have issued new debt, auditors tend to follow prior expert's wordings more.

[Insert Table 8 here]

Overall, the above evidence supports that RMM documentation is affected by prior expert's wordings. This effect is the strongest when RMM reporting is first publicly available in 2014, and the effect becomes much weaker afterwards. In addition, auditors do not blindly follow. First, if they are Non-Big 4 auditors and lack enough resources, they tend to follow prior expert's wordings more to improve audit and reporting quality as well as credibility. Second, they seem to select prior expert perceived as "good quality" to follow. Finally, they follow prior expert's wordings more if the client firm and the firm audited by prior expert have more similar risks, and vice versa.

5.2 Topic study measure

5.2.1 Description and distribution of RMM topics

RMM topics provide additional information to understand auditor's RMM auditing and reporting behavior. By reading all RMM documentations and manually categorizing into 25 RMM topics, Table 9 presents the description and distribution of RMM topic categories. Accordingly, RMM topics such as *impairment*, *revenue recognition*, *provisioning*, *taxation*, and *valuation* are the most popular risk areas of auditor's concern. It can be seen that among the 25 RMM topics, 11 topics are infrequent and each consists of less than 5% of the sample. In the following regression results, I mainly focus on the more common 14 topics.

[Insert Table 9 here]

Figure 9 shows the topic inclusion trend of the most popular RMM topics. While *revenue recognition* and *taxation* have a decreasing trend, *impairment*, *provisioning* and *valuation* have kept a similar inclusion percentage along the years. Figure 10 illustrates the number of RMMs included

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²⁹ In the sample there is not any observation that both the client firm and the firm audited by a prior expert have issued new equity.

by each auditor while Table 10 presents the distribution of RMM topics included by each Big 4 auditor. It is shown that KPMG includes fewer RMMs (2 to 4) compared to other Big 4 auditors and even Non-Big 4 auditors (3 to 5). Besides, each Big 4 audit firm has its own preference in reporting risks concern. For instance, Deloitte includes *impairment* more frequently than other auditors (75%, compared to the total inclusion as 63%), and EY includes *revenue recognition* more frequently (76%, compared to the total inclusion as 61%). Both EY and PwC consider *internal control* and *exceptional item* as of higher risk (31% of audit reports issued by EY and 28% of PwC reports include *internal control* as a RMM, while only 4% of Deloitte reports and 2% of KPMG reports include; 14% of EY reports and 15% of PwC reports include *exceptional item* as a RMM, whereas only 8% of Deloitte reports and 7% of KPMG reports include). Finally, EY also includes *reserve* and *related parties* more frequently (11% and 8% respectively, compared to the total inclusion as 2% and 2% respectively). This is because a lot of EY's clients are in Oil & Gas industry, and *reserve* and *related parties* are industry specific risks.

[Insert Figures 9 and 10, and Table 10 here]

5.2.2 Validating the categorization of RMM topics

To validate my topic categorization, I perform a conditional logistic model. Table 11 presents the regression results. Column (1) is the base outcome which I combine the less common 11 topics together. The coefficients in Columns (2) to (15) represent the relative coefficients compared to the base outcome. While it seems that client firm size and maturity do not magnificently impact auditor's preference to include any specific RMM topic, auditors tend to include *pension* or *going concern* as a RMM more compared to the less common 11 RMM topics when leverage is higher. When profitability is higher, auditors are less likely to include *going concern* as a RMM compared to the less common 11 RMM topics. However, when there is loss or going concern opinion, auditors are more likely to include *going concern* as a RMM compared to the less common 11 RMM topics.

Meanwhile, when there are more extraordinary items, or more mergers and acquisitions, or more



new equity issuances, auditors seem to include *acquisition and disposal* as a RMM compared to the less common 11 RMM topics more. Overall, the results are quite intuitive and it suggests that my topic categorization is reasonable.

As for specific Big 4 auditors' RMM topic choice preference, Deloitte seems to have more preference to include *impairment* or *pension* as a RMM and have less preference to include *internal control* or *legal and regulatory* as a RMM compared to the less common 11 RMM topics. EY is less likely to include *costs capitalization* or *legal and regulatory* as a RMM compared to the less common 11 RMM topics. KPMG tends to include *impairment*, *taxation*, *valuation*, or *pension* as a RMM more and to include *internal control* as a RMM less compared to the less common 11 RMM topics. Finally, PwC is more likely to include *pension* as a RMM and less likely to include *legal and regulatory* as a RMM compared to the less common 11 RMM topics.

[Insert Table 11 here]

5.2.3 Testing for effect of the same auditor

Next, I test whether RMM topic choice is affected by auditor's own template. Panel A of Table 12 reports the descriptive statistics. The mean of the absolute difference of the number of RMMs is around 1.5, and roughly 80% of the pairwise audit reports have at least one same RMM topic. For the most popular RMM topics, around 40% of pairwise audit reports both include *impairment* as a RMM, around 36% both include *revenue recognition* as a RMM, around 15% both include *provisioning* as a RMM, around 12% both include *taxation* as a RMM, and around 9% both include *valuation* as a RMM. Same as the statistics in Table 4, there are around 23% of pairwise audit reports issued by the same auditor. Among these, around 7% are from KPMG and PwC respectively, 6% from Deloitte and only 2% from EY.

Panel B of Table 12 presents the regression results of the absolute difference of the number of RMMs in pairwise audit reports. It shows that there is auditor's own template effect on the number of RMMs after controlling for client firm's risk factors as well as auditor's characteristics.



When audit reports are issued by the same auditor, the numbers of RMMs included are also more similar (i.e. the difference in the number of RMMs decreases by 0.1 as shown in Column (1)). Besides, audit partner's style effect remains after considering firm-wide's effect, but there is not any significant office-level effect. In regard to specific Big 4 auditors' template effect, it is found that Deloitte, EY, and KPMG (both firm and partner level) have effect on the number of RMMs. Specifically, audit reports both issued by Deloitte have more similar number of RMMs. The difference in the number of RMMs decreases by 0.4 as shown in Column (5), while that of EY (KPMG) decreases by 0.1 (0.1).

Panel C of Table 12 demonstrates that there is auditor's own template effect on RMM topic choice after controlling for client firm's risk factors as well as auditor's characteristics. It is more likely for the same auditor to include at least one same specific RMM topic in two different audit reports. I also find this effect for specific Big 4 auditors (except KPMG). The outlier result for KPMG may be due to the fewer number of RMMs issued by KPMG, thus making it less likely for two different audit reports to have at least one same specific RMM topic. However, I do not find significant audit partner's style effect on RMM topic choice.

Panel D of Table 12 further shows the univariate effect of auditor's own template and specific Big 4 auditors' template on various RMM topic choices³⁰. I break down the variable of interest $Same(RMM_Topic)$ into various specific topics such that each $Same(RMM_SpecTopic)$ now takes 1 if the pairwise audit reports include the same specific RMM topic, and 0 otherwise. For the most popular RMM topics, it is found that audit reports both issued by the same auditor are more likely to both include impairment, provisioning, or taxation as a RMM but less likely to both include revenue recognition as a RMM. In the meantime, audit reports both issued by Deloitte are more likely to both include impairment or provisioning as a RMM. Audit reports both issued by EY are more likely to both include revenue recognition as a RMM but less likely to both include

³⁰ I have performed logistic regression by including control variables. The results are similar to those as univariate regression and are omitted for brevity.

provisioning or valuation as a RMM. Audit reports both issued by KPMG are more likely to both include valuation as a RMM but less likely to both include impairment, revenue recognition, or taxation as a RMM. Finally, audit reports both issued by PwC are more likely to both include provisioning or taxation as a RMM but less likely to both include valuation as a RMM.

To summarize, the linear regression results and the logistic regression results provide support that RMM topic choice is affected by auditor's firm-wide template. While it is found that audit partner's style has an incremental effect on the number of RMMs, this effect does not exist on RMM topic choice. The results also suggest that specific Big 4 auditors have different preference in issuing certain RMM topics. I shall continue the study by examining if RMM topic choice is affected by prior expert's RMM topic choice.

[Insert Table 12 here]

5.2.4 Testing for effect of prior expert's RMM topic choice

To test whether RMM topic choice is affected by prior expert's RMM topic choice, I examine pairwise audit reports of the same industry firms in prior and current years (i.e. year t and year t-1). Unlike Table 6 that includes both pairwise same industry firms in consecutive years and pairwise same industry firms in the same year as data structure, I focus merely on pairwise same industry firms in consecutive years because the indicator of a firm following prior expert's RMM topic choice is always 0 for the same year pairs. Panel A of Table 13 reports the descriptive statistics. There is around 33% of the sample paired with an audit report issued by a prior expert. Due to the restrictive definition of following prior expert's RMM topic choice, there is only around 4% of the sample satisfying the definition, and far much less of the sample follows specifically any one of the most popular RMM topics, namely *impairment*, *revenue recognition*, *provisioning*, *taxation*, or *valuation* (less than or around 1%).

Panel B of Table 13 presents the regression result of the effect of prior expert on the number of RMMs after controlling for client firm's risk factors as well as auditor's characteristics.



The interactive coefficient of $PriorIndExp*RMM_{pairwise\ firm}$ is slightly positive, weakly suggesting that when prior expert has included more RMMs, auditors may learn and consider including more RMMs as well.

Panel C of Table 13 shows that there is learning effect from prior expert to include new RMM topics after controlling for client firm's risk factors as well as auditor's characteristics. It should be noted that due to the definition of $Follow(RMM_Topic)$, the logistic regression model would suffer from complete or quasi-complete separation (Allison 2008). As a result, I perform Firth logistic regression with penalized maximum likelihood estimation (Firth 1993; Heinze and Schemper 2002) instead of normal logistic regression³¹.

Panel D of Table 13 further presents the univariate effect of prior expert on following various RMM topics. I break down the variable of interest $Follow(RMM_Topic)$ into various specific topics such that each $Follow(RMM_SpecTopic)$ now takes 1 if the client firm follows prior expert's certain specific RMM topic, and 0 otherwise. Again, the results suggest that auditors would learn from and follow prior expert's RMM topic choice.

[Insert Table 13 here]

To further understand auditors' tendency to learn from and follow prior expert's RMM topic choice under various conditions, I conduct several cross-sectional tests. To test if Non-Big 4 auditors are more likely to follow prior expert's RMM topic choice, I follow Panel A of Table 8 and specifically look at Basic Materials industry in which Non-Big 4 auditors have a slightly bigger market share, as well as Grant Thornton and BDO to increase testing power. Panel A of Table 14 supports that Non-Big 4 auditors in Basic Materials industry tend to follow prior expert's RMM topic choice, but not for Grant Thornton nor BDO. The interactive coefficient for Basic Materials industry (*PriorIndExp * NonBig4 * BasicMat*) is significantly positive. However, the interactive

³¹ Some econometrists suggest and prefer to adopt linear regression when the dependent variable is binary (Hellevik 2009). Hellevik disputes some common rejections (out of range predictions and inappropriate significance tests) for using linear model and suggests that linear measures but not logistic measures can be used for causal analysis (Hellevik 2009). I have therefore additionally performed linear regression and found that the coefficient for *PriorIndExp* is significantly positive. Regression results are not reported for brevity.



coefficient for Grant Thornton (PriorIndExp*GT) is negative while that for BDO (PriorIndExp*BDO) is positive but lacks significance.

Panel B of Table 14 shows that auditors select prior expert to follow. Contrary to the result in Panel B of Table 8, it is more likely for auditors to follow EY's RMM topic choice, followed by Deloitte, PwC, and KPMG. Chi2 tests indicate that the coefficient for *PriorIE_KPMG* is overall significantly weaker than those for *PriorIE_Deloitte*, *PriorIE_EY* and *PriorIE_PwC*. The unexpected result for KPMG may be caused by KPMG having fewer RMMs included in audit reports, thus auditors find it less useful to follow KPMG's RMM topic choice.

Panel C of Table 14 demonstrates how client firm's risk factors affect auditors' tendency to learn from and follow prior expert's RMM topic choice. In Column (1), when both the client firm and the firm audited by prior expert have had going concern opinion, auditors are more likely to follow prior expert and include *going concern* as a RMM. In Columns (2) and (3), when both the client firm and the firm audited by prior expert have undergone mergers and acquisitions, auditors are more likely to follow prior expert and include *acquisition and disposal* or *exceptional item* as a RMM.

Lastly, in Column (4), when both the client firm and the firm audited by prior expert have issued new debt, auditors are more likely to follow prior expert and include *exceptional item* as a RMM.

[Insert Table 14 here]

Overall, the above evidence supports that RMM topic choice is affected by prior expert's RMM topic choice. Results also suggest that auditors do not blindly follow. First, Non-Big 4 auditors may learn from and follow prior expert's RMM topics under some circumstances. Second, auditors seem to select prior expert to follow. Finally, they follow prior expert's RMM topics more if the client firm and the firm audited by prior expert have more similar risks.

5.2.5 Testing for relationship between textual similarity and RMM topics

Panel A of Table 15 shows that when the total number of specific RMM topics both included by a client firm and other firms audited by the same auditor in the same year increases, the average



RMM textual similarity score of a client firm in relation to other firms using the same auditor in the same year also increases. Similarly, Panel B of Table 15 shows that when the total number of specific RMM topics both included by a client firm and other same industry firms audited by a prior expert increases, or when a client firm follows the prior expert and includes more RMM topics, the average RMM textual similarity score of a client firm in relation to other same industry firms audited by the prior expert also increases. These simple tests support that the inclusion of same RMM topics is associated with higher RMM textual similarity.

[Insert Table 15 here]

5.3 Audit work measure

5.3.1 Description and distribution of audit work in response to specific RMM topics

Thus far, I have studied the effect of auditor's own template and prior expert on RMM textual similarity as well as RMM topic choice. I shall now continue to study auditor's response to RMMs to further understand how auditor's auditing behavior is affected by auditor's own template as well as by audit expertise. In particular, I focus on audit work for the seven most popular RMM topics, namely *impairment*, *revenue recognition*, *provisioning*, *taxation*, *valuation*, *pension*, and *acquisition* and disposal. By reading all RMM documentations and manually categorizing audit work for each seven RMM topic, Table 16 presents the description and distribution of RMM audit work categories.

Panel A of Table 16 reports the audit work categories for *impairment*. Almost all auditors perform assessment on management's judgment. Other common audit procedures include performing a sensitivity test (83%), performing a cash flow projection (79%), reviewing external data (78%), reviewing historical performance (65%), reviewing financial disclosures (57%), and involving an expert (53%). Panel B of Table 16 reports the audit work categories for *revenue recognition*. Common audit work includes testing samples (90%), reviewing contracts (66%), testing manual controls (61%), and performing substantive analytic tests (54%). Panel C of Table 16 reports the audit work categories for *provisioning*. While almost all auditors assess



management's judgment, other common audit response includes reviewing historical performance (56%) and reviewing external data (50%). Panel D of Table 16 reports the audit work categories for *taxation*. Almost all auditors perform assessment on management's judgment. Other common audit work includes involving an expert (71%) and reviewing external correspondence with tax department or external tax advice (69%). Panel E of Table 16 reports the audit work categories for *valuation*. While almost all auditors assess management's judgment, another common audit procedure is reviewing external data (59%). Panel F of Table 16 reports the audit work categories for *pension*. Almost all auditors perform assessment on management's judgment. Other common audit response includes benchmarking with external data (86%) and involving an expert (73%). Finally, Panel G of Table 16 reports the audit work categories for *acquisition and disposal*. While almost all auditors assess management's valuation model, other common audit work includes reviewing external data (51%) and involving an expert (50%).

It can be seen that specific Big 4 auditors have different preference in various audit work.

For instance, KPMG focuses a lot on reviewing financial disclosures. On the other hand, EY focuses a lot on reviewing relevant standards as well as involving an expert.

[Insert Table 16 here]

Figures 11A to 11G illustrate the number of audit work categories performed by each auditor. In general, PwC have fewer audit work categories compared to other Big 4 auditors and sometimes even Non-Big 4 auditors.

[Insert Figures 11A to 11G here]

5.3.2 Testing for effect of the same auditor

Next, I test whether auditor's response to specific RMM topics is affected by auditor's own template. Panel A of Table 17 reports the descriptive statistics. A very high proportion of pairwise audit reports (around 99%) have at least one same specific audit work category for any of the seven specific RMM topics. This high proportion is driven by the fact that there is often one audit



procedure which almost all auditors perform. If each seven specific RMM topic is considered individually, it is found that the percentage of pairwise audit reports having at least one same audit work category drops significantly. For instance, around 62% of pairwise audit reports have at least one same specific audit work category for *impairment*, around 60% for *revenue recognition*, around 41% for *provisioning*, around 35% for *taxation*, around 29% for *valuation*, and around 24% for *pension* and *acquisition and disposal* respectively. Meanwhile, there are around 18% of pairwise audit reports issued by the same auditor and with the same specific RMM topic. Among these, around 6% are from PwC, around 5% from Deloitte and KPMG respectively, and only 2% from EY.

Panel B of Table 17 demonstrates that there is auditor's own template effect on auditor's response to specific RMM topics after controlling for client firm's risk factors as well as auditor's characteristics. It is more likely for the same auditor to perform at least one same specific audit response category for two different client firms. I also find this effect for specific Big 4 auditors. As Panel C of Table 13, it should be noted that the logistic regression model would suffer from complete or quasi-complete separation (Allison 2008). Therefore, I perform Firth logistic regression with penalized maximum likelihood estimation (Firth 1993; Heinze and Schemper 2002) instead of normal logistic regression³².

Panel C of Table 17 shows the univariate effect of auditor's own template and specific Big 4 auditors' template (firm and partner level respectively) on audit response to specific RMM topics. I break down the variable of interest Same(AuditWork) into various specific RMM topics such that each $Same(SpecTopic_AuditWork)$ now takes 1 if the pairwise audit reports have at least one same specific audit work category for the specific RMM topic, and 0 otherwise. Unlike the results in Panel B, I find significantly positive effect of same audit partner (and same Big 4 audit partners) on audit response to each seven specific RMM topic.

 $^{^{32}}$ Please refer to footnote 31 for the reason of performing additional linear regression tests. The results are similar to those of the Firth logistic regression. The coefficient for Same(Auditor) is significantly positive. There are also significantly positive coefficients for Both(EY), Both(KPMG) and Both(PwC). The coefficient for Both(Deloitte) is positive although lacks significance. Regression results are not reported for brevity.



In Panel D of Table 17, I further break down the variable of interest $Same(SpecTopic_AuditWork)$ into various audit work categories such that each $Same(SpecTopic_SpecAuditWork)$ now takes 1 if the pairwise audit reports have the exact same specific audit work category for the specific RMM topic, and 0 otherwise. The univariate effect of auditor's own template effect and specific Big 4 auditors' template continues to exist.

To summarize, the logistic regression results provide support that auditor's response to specific RMM topics is affected by auditor's firm-wide template. While I do not find audit partner's style effect on an overall level, I find such effect when the seven specific RMM topics are considered individually. I shall continue the study by examining if audit work for specific RMM topics is affected by prior expert's audit work choice.

[Insert Table 17 here]

5.3.3 Testing for effect of prior expert's audit work choice

To test whether auditor's response to specific RMM topics is affected by prior expert's audit work choice, I examine pairwise audit reports of the same industry firms in prior and current years (i.e. year t and year t-1). As Table 13, I focus merely on pairwise same industry firms in consecutive years because the indicator of a firm following prior expert's audit work is always 0 for the same year pairs. Panel A of Table 18 reports the descriptive statistics. There is around 33% of the sample paired with an audit report issued by a prior expert. Around 15% of the sample has followed prior expert's audit work choice. This proportion is higher than that of following prior expert's RMM topic choice (around 4%) because the definition of following prior expert's audit work choice is less restrictive than that of following prior expert's RMM topic choice. While the definition of following prior expert's RMM topic choice requires a new inclusion of RMM topic, the definition of following prior expert's audit work choice does not. For each of the seven specific RMM topics, the percentage of the sample following prior expert's audit work choice does not. For each of the seven specific RMM topics, the percentage



Panel B of Table 18 shows that there is learning effect from prior expert to adopt new audit work categories after controlling for client firm's risk factors as well as auditor's characteristics. As Panel C of Table 13, it should be noted that the logistic regression model would suffer from complete or quasi-complete separation (Allison 2008). Thus, I perform Firth logistic regression with penalized maximum likelihood estimation (Firth 1993; Heinze and Schemper 2002) instead of normal logistic regression³³.

Panel C of Table 18 presents the univariate effect of prior expert on following audit response to specific RMM topics. I break down the variable of interest Follow(AuditWork) into various specific RMM topics such that each $Follow(SpecTopic_AuditWork)$ now takes 1 if the client firm follows at least one prior expert's audit work category for the specific RMM topic, and 0 otherwise.

In Panel D of Table 18, I further break down the variable of interest $Follow(SpecTopic_AuditWork) \text{ into various audit work categories such that each}$ $Follow(SpecTopic_SpecAuditWork) \text{ now takes 1 if the client firm follows the exact specific audit work category for the specific RMM topic, and 0 otherwise. The results in Panels C and D suggest that auditors would learn from and follow prior expert's audit work choice.}$

[Insert Table 18 here]

To further understand auditors' tendency to learn from and follow prior expert's audit work choice under various conditions, I conduct several cross-sectional tests. To test if Non-Big 4 auditors are more likely to follow prior expert's audit work categories, I follow Panel A of Table 8 and specifically look at Basic Materials industry in which Non-Big 4 auditors have a slightly bigger market share, as well as Grant Thornton and BDO to increase testing power. Panel A of Table 19 supports that Non-Big 4 auditors tend to follow prior expert's audit response more. The interactive

³³ Please refer to footnote 31 for the reason of performing additional linear regression tests. The results are similar to those of the Firth logistic regression. The coefficient for *PriorIndExp* is significantly positive. Regression results are not reported for brevity.



coefficients for Basic Materials industry (PriorIndExp*NonBig4*BasicMat) and Grant Thornton (PriorIndExp*GT) are significantly positive while that for BDO (PriorIndExp*BDO) is negative without significance.

Panel B of Table 19 demonstrates that auditors select prior expert to follow. It is more likely for auditors to follow EY's audit work, followed by Deloitte, KPMG, and PwC. Chi2 tests indicate that the coefficient for $PriorIE_PwC$ is significantly weaker than those for $PriorIE_Deloitte$, $PriorIE_EY$, or $PriorIE_KPMG$. This is probably because PwC has fewer audit work categories written in audit reports, thus auditors find it less useful to follow PwC's audit work choice.

Panel C of Table 19 shows how client firm's risk factors affect auditors' tendency to learn from and follow prior expert's audit work choice. In Column (1), when there has been a significant earnings difference in the client firm (over 30% change in ROA), auditors are more likely to follow prior expert's audit work choice in response to *revenue recognition*. In Columns (2) and (3), when both the client firm and the firm audited by prior expert have undergone mergers and acquisitions, auditors are more likely to follow prior expert's audit work choice in response to *impairment* as well as *acquisition and disposal* respectively. Lastly, in Column (4), when there has been a significant size difference in the client firm (over 30% change in the natural logarithm of total assets), auditors are more likely to follow prior expert's audit work choice in response to *acquisition and disposal*.

[Insert Table 19 here]

Overall, the above evidence suggests that auditor's response to specific RMM topics is affected by prior expert's audit work choice. Results also show that auditors do not blindly follow. First, Non-Big 4 auditors tend to learn from and follow prior expert's audit work choice more. Second, auditors seem to select prior expert to follow. Finally, they follow prior expert's audit work choice more if the client firm is of higher risks.



5.4 Additional testing of new client acceptance

ongoing clients' (new client's) prior RMM reporting affects the new client's (ongoing clients') current RMM auditing and reporting. This would shed some lights on the mechanism of learning. 5.4.1 Testing for effects of ongoing clients on new client's RMM auditing and reporting To test whether auditor applies audit firm's own template on the new client and thus affecting its current RMM wordings, RMM topics and audit response, I examine pairwise audit reports of the same industry firms in prior and current years (i.e. year t and year t-1) and restrict current-year firms to have an auditor change. Panel A of Table 20 reports the descriptive statistics. There is around 24% of the sample paired with an ongoing client and around 24% of the sample paired with a client of the outgoing auditor. The mean of RMM textual similarity is roughly 9.134. There is around 6% of the sample following ongoing clients' prior RMM topic choice, and around 15% of the sample following ongoing clients' prior audit work choice. Similar to the results of Panel A of Table 13 and Panel A of Table 18, the proportion of the sample following ongoing clients' prior audit work choice is higher than that of following ongoing clients' prior RMM topic choice because the definition of following ongoing clients' prior audit work choice is less restrictive than that of following ongoing clients' prior RMM topic choice. Only around 1% or less of the sample follows specifically any one of the most popular RMM topics, namely impairment, revenue recognition, provisioning, taxation, valuation, pension, and acquisition and disposal; and around 1% to 7% of the sample follows audit work choice for these seven specific RMM topics.

I would like to further analyze a scenario in which an auditor accepts a new client and examine how

Panel B of Table 20 shows that current RMM documentation of the new client is affected by current auditor's own template after controlling for client firm's risk factors as well as auditor's characteristics. F-tests indicate that the coefficient for Same(NewAuditor) is significantly stronger

³⁴ I have performed test using textual similarity of the whole audit report. The mean of whole report textual similarity is around 81.2. Regression result for whole report textual similarity is similar to that of RMM textual similarity where the coefficient for *Same*(*NewAuditor*) is bigger than those for *Same*(*OldAuditor*) and *OtherAuditor*. Regression result is not reported for brevity.



than those of Same(OldAuditor) and OtherAuditor, suggesting that the effect of current auditor's template is stronger than those of the outgoing auditor's template as well as other auditors' templates.

Panel C of Table 20 demonstrates that current RMM topic choice of the new client is also affected by current auditor's own template as the new client follows ongoing clients' prior RMM topic choice to include new RMM topics. As Panel C of Table 13, it should be noted that the logistic regression model would suffer from complete or quasi-complete separation (Allison 2008). Therefore, I perform Firth logistic regression with penalized maximum likelihood estimation (Firth 1993; Heinze and Schemper 2002) instead of normal logistic regression³⁵.

Panel D of Table 20 presents the univariate effect of current auditor's own template on following ongoing clients' prior various RMM topics. I break down the variable of interest $Follow(SNA_RMM_Topic)$ into various specific topics such that each $Follow(SNA_RMM_SpecTopic)$ now takes 1 if the new client follows ongoing clients' prior certain specific RMM topic, and 0 otherwise. Again, the results suggest that the new client follows ongoing clients' prior RMM topic choice.

Panel E of Table 20 shows that current audit work choice of the new client is affected by current auditor's own template as well. The new client follows ongoing clients' prior audit work choice to adopt new audit work categories. As Panel C of Table 13, it should be noted that the logistic regression model would suffer from complete or quasi-complete separation (Allison 2008). Therefore, I perform Firth logistic regression with penalized maximum likelihood estimation (Firth 1993; Heinze and Schemper 2002) instead of normal logistic regression³⁶.

³⁶ Please refer to footnote 31 for the reason of performing additional linear regression test. The result is similar to that of the Firth logistic regression. The coefficient for Same(NewAuditor) is significantly positive. Regression result is not reported for brevity.



³⁵ Please refer to footnote 31 for the reason of performing additional linear regression test. The result is similar to that of the Firth logistic regression. The coefficient for *Same*(*NewAuditor*) is significantly positive. Regression result is not reported for brevity.

Panel F of Table 20 presents the univariate effect of current auditor's own template on following ongoing clients' prior audit response to specific RMM topics. I break down the variable of interest $Follow(SNA_AuditWork)$ into various specific RMM topics such that each $Follow(SNA_SpecTopic_AuditWork)$ now takes 1 if the new client follows at least one ongoing clients' prior audit work category for the specific RMM topic, and 0 otherwise.

In Panel G of Table 20, I further break down the variable of interest $Follow(SNA_SpecTopic_AuditWork) \text{ into various audit work categories such that each}$ $Follow(SNA_SpecTopic_SpecAuditWork) \text{ now takes 1 if the new client follows the exact specific audit work category for the specific RMM topic, and 0 otherwise. The results in Panels F and G suggest that the new client follows ongoing clients' prior audit work choice.}$

To summarize, the linear regression result and the logistics regression results provide support that auditor applies audit firm's own template on the new client, thus affecting the new client's current RMM auditing and reporting.

[Insert Table 20 here]

5.4.2 Testing for effects of new client on ongoing clients' RMM auditing and reporting

To test whether auditor pays more attention to the new client's prior RMM reporting and learns from it, I examine pairwise audit reports of the same industry firms in prior and current years (i.e. year t and year t-1), restricting current-year firms to have no auditor change and prior-year firms to have a different auditor from those of current-year firms. Panel A of Table 21 reports the descriptive statistics. There is around 3% of the sample paired with a new client. The mean of RMM textual similarity is round 8.0^{37} . There is around 0.3% of the sample following new client's prior RMM topic choice, and around 0.8% of the sample following new client's prior audit work choice.

³⁷ I have performed test using textual similarity of the whole audit report. The mean of whole report textual similarity is around 79.4. Regarding regression result, although both the coefficients for <code>Same(CurrentAuditor)</code> and <code>OtherAuditor</code> are significantly positive, the effect of <code>Same(CurrentAuditor)</code> is not stronger than that of <code>OtherAuditor</code>. It could be the case that auditors usually pay more attention to prior RMM documentation of the new client. The remaining parts of audit report are standardized and thus there is no significant difference of the effect of the new client and other unrelated firms. Regression result is not reported for brevity.

Similar to the result of Panel A of Table 20, the proportion of the sample following new client's prior audit work choice is higher than that of following new client's prior RMM topic choice due to the less restrictive definition of following new client's prior audit work choice.

Panel B of Table 21 shows that current RMM documentation of the ongoing clients is affected by new client's prior wordings after controlling for client firm's risk factors as well as auditor's characteristics. F-test indicates that the coefficient for Same(CurrentAuditor) is significantly stronger than that of OtherAuditor, suggesting that auditor pays more attention to the new client's prior RMM documentation and learns the wordings.

Panel C of Table 21 demonstrates that there is learning effect from new client to include new RMM topics after controlling for client firm's risk factors as well as auditor's characteristics. As Panel C of Table 13, it should be noted that the logistic regression model would suffer from complete or quasi-complete separation (Allison 2008). Therefore, I perform Firth logistic regression with penalized maximum likelihood estimation (Firth 1993; Heinze and Schemper 2002) instead of normal logistic regression³⁸.

Panel D of Table 21 presents the univariate effect of following new client's prior various RMM topics. I break down the variable of interest $Follow(SCA_RMM_Topic)$ into various specific topics such that each $Follow(SCA_RMM_SpecTopic)$ now takes 1 if the ongoing clients follow new client's prior certain specific RMM topic, and 0 otherwise. Again, the results suggest that the ongoing clients learn from and follow new client's prior RMM topic choice.

Panel E of Table 21 shows that there is learning effect from new client to adopt new audit work categories after controlling for client firm's risk factors as well as auditor's characteristics. As Panel C of Table 13, it should be noted that the logistic regression model would suffer from complete or quasi-complete separation (Allison 2008). Therefore, I perform Firth logistic

³⁸ Please refer to footnote 31 for the reason of performing additional linear regression test. The result is similar to that of the Firth logistic regression. The coefficient for *Same*(*CurrentAuditor*) is significantly positive. Regression result is not reported for brevity.



regression with penalized maximum likelihood estimation (Firth 1993; Heinze and Schemper 2002) instead of normal logistic regression³⁹.

Panel F of Table 21 presents the univariate effect of following new client's prior audit response to specific RMM topics. I break down the variable of interest $Follow(SCA_AuditWork)$ into various specific RMM topics such that each $Follow(SCA_SpecTopic_AuditWork)$ now takes 1 if the ongoing clients follow at least one new client's prior audit work category for the specific RMM topic, and 0 otherwise.

In Panel G of Table 21, I further break down the variable of interest $Follow(SCA_SpecTopic_AuditWork) \text{ into various audit work categories such that each}$ $Follow(SCA_SpecTopic_SpecAuditWork) \text{ now takes 1 if the ongoing clients follow the exact}$ $specific \text{ audit work category for the specific RMM topic, and 0 otherwise. The results in Panels F \text{ and}}$ G suggest that the ongoing clients learn from and follow new client's prior audit work choice.

To summarize, the linear regression result and the logistics regression results provide support that auditor pays more attention to the new client's prior RMM reporting and learns from it, thus affecting the ongoing clients' current RMM auditing and reporting.

[Insert Table 21 here]

5.5 Consequences testing

5.5.1 Testing for effects on audit fees and audit delay

To complete the analysis, I examine how maintaining an auditor's own template or learning from prior expert would benefit auditors. In particular, I examine the effects of RMM textual similarity, RMM topic choice, and audit response on audit fees and audit delay respectively. To test whether auditor's own template affects audit fees and audit delay, I calculate the average RMM textual similarity of a client firm in relation to other firms using the same auditor (or audit partner) in the

³⁹ Please refer to footnote 31 for the reason of performing additional linear regression test. The result is similar to that of the Firth logistic regression. The coefficient for *Same*(*CurrentAuditor*) is significantly positive. Regression result is not reported for brevity.



same year. Panels A-1 and A-2 of Table 22 report the descriptive statistics. The mean of average RMM textual similarity of the same audit partner is slightly higher than that of the same auditor (around 14.0 compared to around 10.3)⁴⁰. It is expected as audit reports issued by the same audit partner do not only have the same firm-wide template but also have the same partner's writing style. The mean of lnAuditFee and lnReportLag are roughly the same in the two samples (roughly 13.7 and 4.1 respectively).

Panel B of Table 22 shows that maintaining an auditor's firm-wide RMM reporting template is likely to increase audit fees and reduce audit delay after controlling for client firm's risk factors as well as auditor's characteristics. Meanwhile, maintaining an audit partner's writing style is also likely to increase audit fees although there is insignificant result on audit delay. The adjusted R-squares (over 75% for audit fee model and around 30% for audit delay model) are similar to or even higher than prior studies (such as Ettredge et al. 2006; Ghosh and Lustgarten 2006; Higgs and Skantz 2006; Pizzini et al. 2015).

[Insert Table 22 here]

Next, I calculate the average RMM textual similarity of a client firm in relation to other firms in the same industry and audited by a prior expert to determine whether following prior expert's wordings affects audit fees and audit delay. Panel A of Table 23 reports the descriptive statistics. The mean of average RMM textual similarity of prior expert (around 9.2) is smaller than that of the same auditor or same audit partner⁴¹. The means of *lnAuditFee* and *lnReportLag* are comparable to those of the same auditor (audit partner) sample (roughly 13.6 and 4.2 respectively).

⁴¹ I have performed tests using textual similarity of the whole audit report. The mean of average whole report textual similarity of a client firm in relation to other firms audited by a prior expert is around 81.0. Regression results for whole report textual similarity are weaker. There is positive result for *lnAuditFee* and negative result for *lnReportLag*, but both results are insignificant. Regression results are not reported for brevity.



⁴⁰ I have performed tests using textual similarity of the whole audit report. The mean of average whole report textual similarity of a client firm in relation to other firms using the same auditor (or audit partner) in the same year is around 84.0 (around 85.6). Regression results for whole report textual similarity are weaker. There is significantly negative result for *lnReportLag* with *Avg_SameAuditor_Sim_score*, but insignificant result with *Avg_SameAuditPtn_Sim_score*. The results for *lnAuditFee* are positive but insignificant with both *Avg_SameAuditor_Sim_score* and *Avg_SameAuditPtn_Sim_score*. Regression results are not reported for brevity.

Panel B of Table 23 presents that following prior expert's wordings is likely to increase audit fees and reduce audit delay after controlling for client firm's risk factors as well as auditor's characteristics.

In Panel C of Table 23, I further test how maintaining an auditor's firm-wide RMM reporting template and learning from prior expert together affects audit fees and audit delay. It is found that maintaining an auditor's own template is likely to increase audit fees, while following prior expert's wordings is likely to reduce audit delay.

[Insert Table 23 here]

As mentioned in Section 4.5.1, although not the focus of interest, *RMM_Note_Sim_score* could bring some interesting insight about how auditor's shirking may affect audit fees or audit delay. Yet, results in Panel B of Table 22 and those in Panels B and C of Table 23 provide very weak and confusing evidence of the effect of textual similarity between auditor's RMM documentation and management's accounting policies disclosure. While a more similar auditor's RMM reporting to management's accounting policies disclosure is likely to reflect auditor's shirking behavior, no conclusion could be drawn on how auditor's shirking may affect audit fees or audit delay due to the weak and insignificant evidence.

I then examine if following prior expert's RMM topic choice or following prior expert's audit work choice affects audit fees and audit delay. Panel A of Table 24 reports the descriptive statistics. There is around 30% of the sample following any one of the prior expert's RMM topics. Concerning the seven specific RMM topics, namely *impairment*, *revenue recognition*, *provisioning*, *taxation*, *valuation*, *pension*, and *acquisition and disposal*, there is around 24% of the sample following prior expert to include any one of these topics and around 78% of the sample following prior expert's audit work in response to any one of these topics. The proportion of the sample that does not only follow prior expert to include any one of these topics but also follows prior expert's audit work choice is around 24%.



Panel B of Table 24 suggests that following prior expert's RMM topic choice is likely to increase audit fees and reduce audit delay after controlling for client firm's risk factors as well as auditor's characteristics.

Panel C of Table 24 demonstrates that following prior expert to include any one of the seven specific RMM topics and to follow prior expert's audit work choice is likely to increase audit fees after controlling for client firm's risk factors as well as auditor's characteristics.

[Insert Table 24 here]

Until now, evidence indicates that auditors are more likely to have higher audit fees and shorter audit delay when maintaining an auditor's own template or learning from and following prior expert. It seems that maintaining an audit firm's template or learning from expert is an additional effort by auditors to provide better quality audit instead of a shirking behavior of auditors. If maintaining a firm-wide template or learning from expert is a shirking behavior, although audit delay would be shortened because auditors simply follow template or expert without much judgment, clients are unlikely to bear higher fees if auditors shirk. Meanwhile, by maintaining a firm-wide template or learning from expert as an additional effort, auditors are more likely to charge higher fees since they have exerted more audit effort. It seems counterintuitive that by learning from and following expert, audit delay is reduced as auditor's workload should have increased. Yet, it is probable that auditors have learnt from prior expert to audit more efficiently, or that auditors have saved time planning for audit, as a result audit process is shortened.

Finally, I extend the analysis to test how prior RMM textual similarity (i.e. year t-1 and year t-2) of the same client firm affects current (i.e. year t) audit fees and audit delay. Panel A of Table 23 reports descriptive statistics. Sample size shrinks to 533 since it requires a client firm to have at least three continuous years of observable data. Similar to the result of Panel A of Table 5, both the mean of prior and current RMM textual similarities of the same client firm are very high



(over $60)^{42}$. Again, lnAuditFee and lnReportLag are similar to those in previous tests (13.7 and 4.2 respectively).

Panel B of Table 23 presents that a higher prior RMM textual similarity reduces both audit fees and audit delay. A possible explanation is that auditors consider client's risk factors being similar if RMM reporting has been similar in prior years. Therefore, auditors may exert less effort in auditing, leading to lower audit fees and shorter audit delay.

[Insert Table 23 here]

6. Conclusion

In response to the public demand for a more informative audit report, the UK FRC issued ISA (UK and Ireland) 700 in June 2013. The new standard encourages auditors to use their judgment to determine which RMMs are included in audit reports, and to use their own wordings to describe company-specific circumstances (FRC 2013a). Following the UK FRC, IAASB and PCAOB have also issued similar new standards (IAASB 2015; PCAOB 2017). These new standards are intended to provide financial statement users with additional information through auditor's insight and tailored wordings. However, there remains concern that RMM documentation is still heavily influenced by standardized language. This study aims to examine two factors to auditor's choice in RMM auditing and reporting, namely auditor's own template and learning from expert.

Using hand-collected audit report data and calculating the RMM textual similarity, evidence supports the following proposition: before the implementation of ISA (UK and Ireland) 700, auditors only have general principles of RMM documentation. In order to maintain similar reporting quality across firm, auditors tend to set up firm-wide RMM reporting template. Once expanded auditor's reports become publicly available, auditors now tend to learn from and follow

⁴² I have performed tests using textual similarity of the whole audit report. Both the mean of prior and current textual similarities are over 90. Regression results for whole report textual similarity are similar to those of RMM textual similarity but weaker. Results for both *lnAuditFee* and *lnReportLag* are negative, although there is only significance for *lnAuditFee*. Regression results are not reported for brevity.



prior expert's RMM wordings, the identification of RMM topics and even actual audit work to improve audit quality as well as credibility. First, it is found that RMM documentation is affected by auditor's own template, and this effect is the strongest in 2013 and gradually declines in the following years. Meanwhile, it is found that textual differentiation among different auditors decreases along the years. Second, while RMM documentation is also affected by prior expert's wordings, this effect is the strongest when RMM reporting is first publicly available in 2014 and weakens afterwards. Beside RMM documentation wordings, evidence also supports that auditor's RMM topic choice and how auditors address the risks are affected by auditor's own template as well as by prior expert. Additional tests show that auditors do not blindly follow prior expert's wordings, RMM topic choice, or audit work choice. Non-Big 4 auditors tend to follow prior expert more. Moreover, auditors tend to select prior expert to follow, and they follow more when their client firms are of similar risks as those audited by prior expert.

I also consider how accepting a new client may affect RMM auditing and reporting of the ongoing clients, and vice versa. I find that the effect is two-way. On the one hand, the auditor is likely to apply the audit firm's own template on the new client's current RMM auditing and reporting, thus making the wordings, RMM topics and audit response for the new client more similar to those of the ongoing clients' prior reports. On the other hand, the auditor is also more likely to pay more attention to the prior RMM reporting of the new client and learn the wordings, RMM topics and audit response from the new client. As a result, the ongoing clients' current RMM auditing and reporting is also getting more similar to that of the new client's prior report.

Finally, I find that auditors are more likely to have higher audit fees and shorter audit delay when they maintain auditors' own template or/ and when they learn from and follow prior expert. It indicates that having audit firm's own template or learning from expert is beneficial for auditors, in a sense that auditors can charge higher fees and shorten audit reporting time.



This study provides some evidence of the impact of RMM reporting requirement on auditor's auditing and reporting behavior. It shows that when auditors face a new standard that dramatically affects their audit output, they would respond by setting up firm-wide quality control and learning from expert to ensure quality and credibility based on legitimacy theory. The latter mechanism also adds interesting insight of interaction among auditors. Specifically, it provides some evidence of how industry audit expert may influence other auditors, which has not been examined in prior studies since past boilerplate audit reports could hardly distinguish audit outputs by experts and fellow auditors.

While the study has certain limitations and it may limit result generalizability or replication process, it may still be of interest of regulators. The findings may be useful to the UK FRC as a post-implementation review of ISA (UK and Ireland) 700. The results may also be referentially beneficial to IAASB and PCAOB when they consider future standard review process. In particular, the results in this study raise concern about the effectiveness of the new standard. ISA (UK and Ireland) 700 is intended to provide additional information to financial statements users and to improve the communicative value of audit report with auditor's own words. Yet, RMM reporting seems to be more similar due to the effect of auditor's own template and learning from expert. The findings may also imply why contemporaneous studies (such as Gutierrez et al. 2018; Lennox et al. 2018) fail to find strong evidence on the informational content of RMM reporting.



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Appendix A Examples of "more similar" and "less similar" RMM documentation

Appendix A provides how textual similarity of RMM documentation between two auditor's reports is calculated. Examples of "more similar" and "less similar" RMM reporting are also provided.

I adopt Hoberg and Phillips (2016) method to calculate firm-by-firm pairwise textual similarity. First, I take the text in RMM documentation from all audit reports and construct a word-vector: $WV = (w_1, w_2, ..., w_{m-1}, w_m)$ where m represents the number of unique words after removing "stop words" in all RMM documentations, and w represents each unique word in the whole set of RMM documentations. "Stop words" include but are not limited to "articles, conjunctions, personal pronouns, abbreviations, legal jargon," or words that appear in more than 25% of all RMM documentations in a given year (Hoberg and Phillips 2016, p.1460).

Next, a word-vector of RMM documentation from audit report i is simply: $V_i = (f_1, f_2, ..., f_{m-1}, f_m)$ in which f is the frequency of each word in WV.

After constructing word-vector for each RMM reporting, I calculate pairwise textual similarity as follows:

$$Similarity_{i,j} = \frac{V_i \cdot V_j}{\|V_i\| \|V_i\|}$$

where V_i and V_j represent the word-vectors of RMM documentation from audit reports i and j, and $||V_i||$ and $||V_j||$ denote the vector lengths. Since the similarity is normalized, RMM documentations with fewer words are not penalized excessively (Hoberg and Phillips 2016).

The above calculation method is repeated for the whole auditor's report for robustness tests.



An example of "more similar" RMM documentations (with auditor's firm-wide template): 888 Holdings plc 2013 & Playtech plc 2013

Below I display RMM documentations of 888 Holdings plc in 2013, audited by BDO (with Christian Summerfield as audit partner in Gibraltar office), and Playtech plc in 2013, audited by BDO (with Kieran Storan as audit partner in London office), respectively. Words in italic denote same wordings used in the two RMM reporting. RMM topics are denoted in text boxes.

RMM documentation of 888 Holdings plc 2013:

Our assessment of risks of material misstatement

In preparing the financial statements, the Directors made a number of subjective judgements and significant accounting estimates that involved making assumptions and considering future events that are, by their nature, inherently uncertain (see note 2 to the consolidated financial statements). We primarily focused our work in these areas by assessing the Directors' judgements against available evidence, forming our own judgements and evaluating the disclosures in the financial statements.

In arriving at our audit opinion above on the Group financial statements the risks of material misstatement that had the greatest effect on our Group audit in the current year are noted below. This is not a complete list of all risks or areas of audit focus identified by our audit. We discussed these areas of focus with the Audit Committee. Their report on those matters that they considered to be significant issues in relation to the financial statements is set out on pages 31 to 33. We focused on the following areas:

Revenue recognition

Revenue recognition, which is a presumed fraud risk under International Standards on Auditing (UK & Ireland). The main risks are the completeness, existence and presentation in the statement of comprehensive income of net gaming revenue and other revenue. Details of the accounting policies applied in respect of the various income streams earned by the Group are given in note 2 to the financial statements. The Group also makes certain judgements around the estimates and treatment of various customer incentives and bonuses that are either deducted from revenue or treated as a cost, the timing of revenue recognition and the accounting treatment of revenue streams derived from contractual arrangements entered into with third parties.

We documented and tested the key IT and manual general and application controls over the completeness and accuracy of the Group's main gaming systems. This included testing the reconciliation between the main gaming systems and the nominal ledger. We also undertook analytical and other substantive testing, including IT interrogation work over net gaming revenue, other revenue and the treatment of customer bonuses.

We reviewed the assumptions, estimates and judgements applied by

RMM documentation of Playtech plc 2013:

<u>Our assessment of risks of material misstatement and our audit approach to these</u> risks

In preparing the financial statements, the directors made a number of subjective judgements and significant accounting estimates that involved making assumptions and considering future events that are, by their nature, inherently uncertain (see Note 1 to the consolidated financial statements). We primarily focussed our work in these areas by assessing the directors' judgements against available evidence, including the risk of management override and bias, forming our own judgements and evaluating the disclosures in the financial statements.

The risks of material misstatement that had the greatest effect on our Group audit in the current year are noted below. This is not a complete list of all risks or areas of audit focus identified by our audit. We discussed these areas of focus with the Audit Committee. Their report on those matters that they considered to be significant issues in relation to the financial statements is set out on pages 54 to 56:

We focussed on the area of revenue recognition. The main risks are the completeness, existence, accuracy and presentation in the Statement of Comprehensive Income of amounts receivable relating to the share of net gambling revenue of customers and other revenue. Details of the accounting policies applied in respect of the various income streams earned by the Group are given in Note 2 to the financial statements. The Group also makes certain judgements around the timing of revenue recognition and the treatment of contractual arrangements for revenue streams entered into.

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Revenue

We documented and tested the key IT and manual general and application controls over the completeness and accuracy of the Group's main gambling systems. This included conducting test bets and testing the reconciliation between the main gaming systems and the nominal ledger. We also undertook analytical and other substantive testing, including IT interrogation work over net gaming revenue and other revenue.



management related to certain customer bonuses and challenged these based on available information.

We reviewed key contracts related to revenue share agreements and other relevant documentation to assess whether the revenue recognised had been correctly treated as gross or net in line with the Group's stated accounting policies and whether any other terms within the contract had any material accounting or disclosure impacts. We also assessed whether the revenue recognition policies adopted by the Group comply with IFRSs as adopted by the EU and industry standards.

Where revenue was recorded through journal entries we performed testing to establish whether a service had been provided in the financial year to support this recognition.

The assessment of the additions to, and carrying value of goodwill and other intangible assets, to determine whether there was a risk of material misstatement in the carrying value of these assets and whether an impairment should be recognised.

Intangible assets primarily comprise those intangible assets recognised on acquisitions, licences acquired, and internally generated computer software enhancements, including those designed to meet US licensing criteria. The Group holds material amounts related to the above assets with carrying values supported through compiling discounted cash flow models with assumptions, estimates and judgements adopted or applied by management. Key assumptions include discount rates, perpetuity rates, expected operating margins and growth rates, the future period over which projections should apply, and sensitivity analysis.

We documented and tested the key controls in respect of the capitalisation of intangible assets, tested a sample of projects undertaken in the year against invoices from external suppliers and internal payroll costs and assumptions, and evaluated the assessment by management as to whether the project spend met all the recognition criteria set out in IAS 38. We also considered whether there were any indications of impairment of intangible assets. We utilised our internal valuations team as part of the audit team and together we challenged management's assumptions used in the discounted cash flow models prepared to assess the impairment of goodwill and other intangibles as described in note 11 of the Group's annual report. This included reviewing all the key assumptions against external evidence where available and by reviewing the cash flow projections against Board approved budgets and assessing the reasonableness of cash flow projections beyond that period against available evidence to support these including external information and studies. We also assessed the

We reviewed key contracts related to revenue share agreements and other relevant documentation to assess whether the revenue recognised had been correctly treated and was in line with the Group's stated accounting policies and whether any other terms within the contract had any material accounting or disclosure impacts. We considered material contracts entered into by the group to confirm revenue was recognised correctly.

We also assessed whether the revenue recognition policies adopted by the group comply with IFRS as adopted by the EU and industry standards.

Where revenue was recorded through journal entries we performed testing to establish whether a service had been provided in the financial year to support this recognition.

Impairment

We focussed on the assessment of the additions to, and carrying value of goodwill, other intangible assets and the investments in subsidiaries held by the parent company to determine whether there was a risk of material misstatement in the carrying value of these assets and whether an impairment should be recognised.

Additions to intangible assets primarily comprise those intangible assets recognised on acquisitions and internally generated computer software enhancements. The Group holds material amounts related to these assets which they support that the carrying value is not impaired through compiling discounted cashflow models with assumptions, estimates and judgements that have been reviewed by management. Key assumptions include discount rates, perpetuity rates, operating margins and growth rates and the number of years that projections will be extended for and sensitivity analysis.

We documented and tested the key controls in respect of the capitalisation of intangible assets, tested a sample of projects undertaken in the year against invoices from external suppliers and internal payroll costs and assumptions, and evaluated the assessment by management as to whether the project spend met all the recognition criteria set out in IAS 38. We considered whether there were any indications of impairment of intangible assets. The audit team utilised our internal valuations team as part of the audit team and together we challenged management's assumptions used in the discounted cash flow models prepared to assess the impairment of goodwill, other intangibles and the carrying value of investments in subsidiaries as described in Note 2 of the Group's financial statements. This included reviewing all the key assumptions against external evidence where available and by beyond that period against available evidence to support these including external information and studies. We assessed the past ability of management to forecast with material accuracy. We performed



past ability of management to forecast with material accuracy.

We also performed other sensitivity analyses on these models particularly where changes in key assumptions could have an impact on the headroom against a break-even position. We also reviewed the disclosures in the financial statements to conclude that these reasonably highlighted all key assumptions and judgements made.

Legal/ regulatory Legal and regulatory compliance and provisions. Given the developing nature of the gaming sector in many countries across the world, there is a risk that potential material legal or regulatory matters are not appropriately disclosed or provided for.

We discussed with the Group's Legal advisors as to whether there were any known instances of material breaches in regulatory and licence compliance that needed to be disclosed or required provisions to be made in the financial statements. The Group has compliance obligations that range from administration of their licences to assessing the impact of country-specific and pan-regional rules and regulations on its business. We reviewed how the Group monitors legal and regulatory developments and their assessment of the potential impact on the business and the appropriate internal and external advice taken in respect of these developments. The Group assesses the appropriateness and quantum of any provisions and disclosures required under *IFRSs* as adopted by the EU for certain outstanding legal and regulatory disputes which are an estimate of what the Directors believe to be the fair value based on the Directors' best estimate where there is a probable outflow of economic benefits. Where the Group do not consider the likelihood of a provision being probable the Group will disclose the existence of a contingent liability unless it is remote. We corroborate this by reviewing any correspondence from regulators related to the Group's licence compliance requirements. We met with, and reviewed the litigation report provided by the Group's legal counsel and discussed each of the material cases noted in the report to determine the Group's assessment of the likelihood and magnitude of any liability that may arise. We also reviewed, where required, any available external legal or regulatory advice sought by the group in their assessment. We challenged the assessments made, where needed, and reviewed the calculation of any provisions made in the light of the external advice provided to the Group. We also reviewed all disclosures prepared by the Group for these provisions and contingent liabilities.

Taxation

Tax including deferred tax given that due to the international nature of the Group there was a risk that material tax exposures may not be reasonably disclosed or provided for in the financial statements.

other sensitivity analyses on these models particularly where changes in key assumptions could have an impact on the headroom against a break-even position. We also reviewed the disclosures in the financial statements to conclude that these reasonably highlighted all key assumptions and judgements made and areas where there was less headroom in existence.

We focussed on legal and regulatory compliance and provisions. Given the
developing nature of the gambling sector in many countries across the world,
there is a risk that potential material legal or regulatory matters are not
disclosed or provided for.

Legal/ regulatory

We discussed with the Group's Compliance and Legal department as to whether there were any known instances of material breaches in regulatory and licence compliance that needed to be disclosed or required provisions to be made in the financial statements. The Group have compliance obligations that range from administration of their licences to assessing the impact of country-specific and pan-regional rules and regulations on its business. We reviewed how the Group monitors legal and regulatory developments and their assessment of the potential impact on the business and the appropriate internal and external advice taken in respect of these developments. We also discussed matters with the Group's dedicated regulatory and compliance teams that report directly to the Board supported by the legal and management teams. They also undertake in-house compliance assessments and have external audits as required by their gaming licences that we reviewed. The Group makes certain provisions and disclosures required under IFRS for certain outstanding legal and regulatory disputes based on the Directors best estimate where there is a probable outflow of economic benefits. Where the Group do not consider the likelihood of a provision being probable the Group will disclose the existence of a contingent liability unless it is remote. We corroborated this by reviewing any correspondence from regulators and reviewed the conclusions from any external audits related to the Group's licence compliance requirements. We met with, and reviewed the litigation report provided by the Group's legal counsel and discussed each of the material cases noted in the report to determine the *Group's assessment of the likelihood and magnitude of any liability that may* arise. We also reviewed, where required, any available external legal or regulatory advice sought by the group in their assessment. We challenged the assessments made, where needed, and reviewed the calculation of any provisions made in the light of the external advice provided to the Group. We also reviewed all disclosures prepared by the Group for these provisions and contingent liabilities.

We focussed on tax including deferred tax given that due to the international nature of the group there was a risk that material tax exposures may not be reasonably disclosed or provided for in the financial statements.

Taxation



We discussed with the Group how they manage, control and operate Group companies in the countries in which they are registered. We also reviewed how the Group considers taxation as part of the overall business planning and how they regularly monitor the rules and practices governing the taxation of ecommerce activity that is evolving in many countries. The Group seeks external advice on these matters in formulating the estimated amount of tax to be provided in certain jurisdictions. We reviewed the taxation provisions in respect of each jurisdiction in which the Group is registered or has a significant presence. We assessed the latest external advice received by management with regard to exposure to taxation in the major territories in which the Group operates, and any correspondence from tax authorities in those territories that may require additional disclosures or provisions. We also considered any transfer pricing studies carried out on behalf of the Group in the period, and assessed, in respect of earlier studies, whether there had been any change in the basis of operations in the relevant territories. We challenged the assessments made by management, where needed, and reviewed the disclosures prepared by the Group for the tax provisions and contingent liabilities.

Political/ market concern The re-opening of the US market in certain states. Certain US states have legalised various forms of online gaming, and the Group has re-entered the market during the year. As a consequence, the Group has entered into a number of new agreements and joint venture arrangements during the year and management has assessed the accounting treatments that should be applied to these.

We critically assessed the agreements entered into during the year in respect of the group's US operations, both with third parties and joint venture partners and assessed whether the company and consolidation accounting applied was in accordance with applicable IFRSs as adopted by the EU. We also assessed with the Group's Compliance and Legal advisors as to whether the Group was operating in accordance with its US licences.

Our application of materiality

We apply the concept of materiality both in planning and performing our audit, and in evaluating the effect of misstatements on our audit and on the financial statements. For planning, we consider materiality to be the magnitude by which misstatements, including omissions, could influence the economic decisions of reasonable users that are taken on the basis of the financial statements. In order to reduce to an appropriately low level the probability that any misstatements exceed materiality, we use a lower materiality level, performance materiality, to determine the extent of testing needed. Importantly, misstatements below these levels will not necessarily be evaluated as immaterial as we also take account of the nature of identified misstatements, and the particular circumstances of their occurrence, when evaluating their effect on the financial statements as a whole.

We discussed with the Group how they manage, control and operate Group companies in the countries in which they are registered. We also reviewed how the Group considers tax as part of the overall business planning and how they regularly monitor the rules and practices governing the taxation of e-commerce activity that is evolving in many countries. The Group seek external and internal advice on these matters in formulating the estimated amount of tax to be provided in certain jurisdictions. We discussed with the Group's finance team the provisions calculated by them in respect of each jurisdiction in which the *Group is registered or has a significant presence. We critically reviewed the latest* externally prepared *advice* received by management with regard to exposure to taxation in the major territories in which the Group operates, and any correspondence from tax authorities in those territories that may require additional disclosures or provisions. We also considered the latest transfer pricing studies carried out on behalf of the Group in the period, and assessed, in respect of earlier studies, whether there had been any change in the basis of operations in the relevant territories. We challenged the assessments made by management, where needed, and reviewed the disclosures prepared by the Group for the tax provisions and contingent liabilities.

Our application of materiality

We apply the concept of materiality both in planning and performing our audit, and in evaluating the effect of misstatements on our audit and on the financial statements. For planning, we consider materiality to be the magnitude by which misstatements, including omissions, could influence the economic decisions of reasonable users that are taken on the basis of the financial statements. In order to reduce to an appropriately low level the probability that any misstatements exceed materiality, we use a lower materiality level, performance materiality, to determine the extent of testing needed. Importantly, misstatements below these levels will not necessarily be evaluated as immaterial as we also take account the nature of identified misstatements, and the particular circumstances of their occurrence, when evaluating their effect on the financial statements as a whole.



We determined materiality for the financial statements as a whole to be US\$4.0 million. In determining this, we based our assessment on a level of 1% of revenue for the year. On the basis of our risk assessment, together with our assessment of the Group's control environment, our judgment is that performance materiality for the financial statements should be 75% of planning materiality. We agreed with the Audit Committee that we would report to the Committee all audit differences individually in excess of US\$0.1 million. We also agreed to report differences below these thresholds that, in our view, warranted reporting on qualitative grounds.

An overview of the scope of our group audit

The majority of the Group's individual entities do not require individual statutory audits and as an online gaming group the accounting for the Group is centrally managed. For the purposes of the Group audit we consider that there are two reporting components, comprising one company based in Israel, and the other being the rest of the worldwide group. The audit of the Israeli company is carried out by a component audit firm using a materiality of US\$0.9 million as instructed by BDO, and the BDO Group audit team audit the rest of the worldwide group, which includes all the Group's consolidated revenue, and the majority of the Group's costs, using materiality of US\$4.0 million. As part of our work on the Group and in accordance with ISA 600 "Special considerations — Audit of Group financial statements (including the work of component auditors), we requested that the Israeli component auditor performed their audit under group instructions and reporting, and we met with and reviewed their work as part of the overall audit. *Based on the* above scope we were able to conclude whether sufficient appropriate audit evidence had been obtained as a basis of our opinion on the Group financial statements as a whole.

We determined materiality for the financial statements as a whole to be $\in 8.85$ million. In determining this, we based our assessment on a level of 5% of Adjusted EBITDA for the year whilst having regard to those items that are charged or credited to arrive at profit for the year outside of Adjusted EBITDA. On the basis of our risk assessment, together with our assessment of the Group's control environment, our judgment is that performance materiality for the financial statements should be 75% of planning materiality. We agreed with the Audit Committee that we would report to the Committee all audit differences individually in excess of $\in 160,000$. We also agree to report differences below these thresholds that, in our view, warranted reporting on qualitative grounds.

An overview of the scope of our group audit

At the planning stage of the audit the Group auditors review the consolidated results broken down by subsidiary location. As part of our requirements under ISA 600 "Special Considerations - Audit of Group Financial Statements (including the work of component auditors)" we request that component auditors for components that are deemed significant components (defined as those that are greater than 15% of the Group's revenue, total assets or Adjusted EBITDA) perform audits to component materiality set by the group audit team under group instructions and reporting. Other locations that do not meet these criteria are asked to perform reviews under ISRE 2410 or reviews with selected audit procedures on certain balances (such as cash or payroll) based on their relative size, risks in the business and our knowledge of those entities. The materiality for group reporting for components performing audits or reviews to the group was \in 4 million and \in 2 million respectively. Based on the above scope we were able to conclude whether sufficient appropriate audit evidence had been obtained as a basis of our opinion on the group financial statements as a whole.



An example of "more similar" RMM documentations (with following prior expert's wordings): Associated British Engineering plc 2016 & The Vitec Group plc 2015

Below I display RMM documentations of Associated British Engineering plc 2016, audited by haysmacintyre (with David Cox as audit partner in London office), and The Vitec Group plc 2015, audited by KPMG (with Robert Brent as audit partner in London office), respectively. Words in italic denote same wordings used in the two RMM reporting. RMM topics are denoted in text boxes.

Associated British Engineering plc 2016:

Our assessment of risks of material misstatement

In arriving at our audit opinion above on the financial statements, the risks of material misstatement that had the greatest effect on our audit are shown in the table below.

Carrying value of inventory

The risk:

Provisioning

- The inventory held at the year-end covers a wide range of parts and the demand for these and the ability of the Group to sell this inventory in the future may be adversely affected by many factors including changes in customer preferences, competitor activity including pricing and the introduction of new parts and technology.
- The Group is required to apply a methodology to calculate an inventory provision that is appropriate to the specific business and nature of parts held in inventory.
- The level of judgement involved in determining whether a provision should be recognised and how it should be measured, coupled with the fact that provision movements impact earnings, results in inventory provisions being one of the key judgemental areas that our audit is concentrated on.

Our response included the following audit procedures:

- Inspecting the ageing of inventory, the accuracy of which was tested, to identify any slow moving inventory lines, and critically assessing whether appropriate provisions had been established for slow moving and obsolete items.
- Comparing most recent prices achieved on sales across the range of product lines to test whether these exceeded the book value of inventory at year end.
- Comparing the methodology and assumptions used by the Group in calculating the inventory provisions to those used in the prior years and, as part of this,

The Vitec Group plc 2015:

Our assessment of risks of material misstatement

In arriving at our audit opinion above on the financial statements, the risks of material misstatement that had the greatest effect on our audit are shown in the table below.

For further reference to these risks, refer to pages 52 and 55 (Report from Christopher Humphrey, Chairman of the Audit Committee) and page 86 (Significant judgements, key assumptions and estimates).

Carrying value of inventory (£58.9 million)

Refer to note 3.3 of the financial statements

The risk:

Provisioning

- The inventory held at the year end covers a wide range of products and the
 demand for these and the ability of the Group to sell this inventory in the future
 may be adversely affected by many factors including changes in customer and
 consumer preferences, competitor activity including pricing and the
 introduction of new products and technology.
- Each operating company is required to apply a methodology to calculate an inventory provision that is appropriate to the specific business and nature of products held in inventory.
- The level of judgement involved in determining whether a provision should be recognised and how it should be measured, coupled with the fact that provision movements impact earnings, results in inventory provisions being one of the key judgemental areas that our audit is concentrated on.

Our response included the following audit procedures:

- Inspecting the ageing of inventory, the accuracy of which was tested, to identify any slow moving inventory lines, and critically assessing whether appropriate provisions had been established for slow moving and obsolete items.
- Comparing most recent prices achieved on sales across the range of product lines to test whether these exceeded the book value of inventory at year end.
- Comparing the methodology and assumptions used by the Group in calculating the inventory provisions to those used in the prior years and, as part of this,



considering whether we would expect a change to the methodology and assumptions based on any changes to the current markets that the Group serves, noting the demand factors highlighted opposite.

 Considering the adequacy of the Group's disclosures (see note 12) in relation to inventory.

Measurement of the defined benefit pension liability

The risk:

Pension

- There is a risk relating to judgements made by management in valuing the defined benefit pension plan including the use of key model input assumptions such as discount rates, mortality assumptions and inflation levels. These variables can have a material impact in calculating the quantum of the retirement benefit liability.
- Management utilise the services of third party actuarial advisers to determine their key assumptions.

Our response included the following audit procedures:

 Our audit work included, but was not restricted to, reviewing the appropriateness of the IAS 19 valuation methodology and determining whether the key assumptions are reasonable. This included reviewing available yield curves and inflation data to recalculate a reasonable range for key assumptions.

We challenged management to understand the sensitivity of changes in assumptions. Additionally, we benchmarked key assumptions against other pension actuarial valuations for any outliers in the data used.

Details of the defined benefit pension scheme are disclosed in note 17 to the group financial statements. The Audit Committee has included their assessment of the risk on page 54 and it included in the key accounting estimates and judgements on page 19.

Recoverability of trade receivables

The risk:

Provisioning

The calculation of the bad debt provision requires a significant level of judgment as the Group sells products to a wide customer base located across numerous countries each with different macroeconomic environments. This spread of customers worldwide requires significant judgement to assess the financial health of each.

considering whether we would expect a change to the methodology and assumptions based on any changes to the current markets that the Group serves, noting the demand factors highlighted opposite.

- Assessing the historical accuracy of provisions recorded by examining the utilisation or release of previously recorded provisions.
- Considering the adequacy of the Group's disclosures (see note 3.3) in relation to inventory.

Recoverability of trade receivables (£38.3 million)

Refer to note 3.3 of the financial statements

The risk:

Provisioning

The calculation of the bad debt provision requires a significant level of judgment as Vitec sells products to a wide customer base located across numerous countries each with different macroeconomic environments. This spread of customers worldwide requires significant judgement to assess the financial health of each.



 The recoverability of trade receivables is dependent on the credit worthiness of customers and their ability to settle the amounts due.

Our response included the following audit procedures:

- Testing the adequacy of the provisions for bad debt recorded against trade receivable balances by taking into account the ageing of receivables at year end and cash received after year end, as well as the controls over its calculation.
- Assessing the historical accuracy of provisions for bad debt recorded by examining the utilization or release of previously recorded provisions.
- Considering the adequacy of the Group's disclosures (see note 13) in relation to provisions for risks concerning recoverability of trade receivables.

Our application of materiality

We apply the concept of materiality both in planning and performing our audit, and in evaluating the effect of misstatements on our audit and on the financial statements. For the purposes of determining whether the financial statements are free from material misstatement we define materiality as the magnitude of misstatement that makes it probable that the economic decisions of a reasonably knowledgeable person, relying on the financial statements, would be changed or influenced.

We determined materiality for the Group to be £26,200, which is 1.5% of revenue. Revenue is used as the benchmark for materiality as it is considered the critical performance measure of the Group. We use a different level of materiality, performance materiality, to drive the extent of our testing and this was set at 75% of financial statement materiality for the audit of the group financial statements.

We agreed with the Audit Committee that we would report to the Committee all audit differences in excess of £1,310, as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We also report to the Audit Committee on disclosure matters that we identified when assessing the overall presentation of the financial statements.

An overview of the scope of our audit

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the structure of the Group, the accounting processes and controls, and the industry in which the Group operates.

The Group includes the listed parent Company (Associated British Engineering plc), the main trading entity (British Polar Engines Limited) and a smaller trading entity (Akoris Trading Limited). The Group's accounting process is structured around a finance team in Glasgow, maintaining their own accounting records and controls.

• The recoverability of trade receivables is dependent on the credit worthiness of customers and their ability to settle the amounts due.

Our response included the following audit procedures:

- Testing the adequacy of the provisions for bad debt recorded against trade receivable balances by taking into account the ageing of receivables at year end and cash received after year end, as well as the controls over its calculation.
- Assessing the historical accuracy of provisions for bad debt recorded by examining the utilization or release of previously recorded provisions.
- Considering the adequacy of the Group's disclosures (see note 3.3) in relation to provisions for risks concerning recoverability of trade receivables.

Restructuring provision (£3.2 million)

Refer to note 3.6 of the financial statements

Provisioning

The risk:

- The Group has implemented various restructuring activities for which
 significant costs have been recorded during the year. This includes costs that
 are committed at the year end and for which provisions have been recorded.
 The determination of the amount of these provisions requires estimations
 concerning final redundancy settlements and other associated restructuring
 costs, and as such are inherently subjective.
- The estimations require judgement to determine if the programmes and commitments are sufficiently advanced to trigger the requirement for a provision and there is a risk that the amounts recorded may be materially incorrect.

Our response included the following audit procedures:

- Critically assessing whether the restructuring programmes and commitments were sufficiently advanced to meet the requirements for a provision in accordance with relevant accounting standards.
- Considering the commitments made via public announcements and other communications with those to be affected.
- Testing the appropriateness of provisions through agreeing individual provisions to supporting information.
- Considering the adequacy of the Group's disclosure in respect of the restructuring activities and provision (see note 3.6).

Current tax liability (£6.6 million)

Refer to note 2.4 of the financial statements



The main trading entity is the focus of our audit as this comprises 100% of the Group's revenue and 92% of the Group's net assets. All material items in this entity, and therefore the financial statements, are audited by a single engagement team. In addition to the audit work conducted at Glasgow, the engagement team also visited the warehouse, primarily to provide evidence over the year-end inventory balance.

At the parent entity level we also tested the consolidation process and carried out analytical procedures to confirm our conclusion that there were no significant risks of material misstatement.

The risk:

This is one of the key judgemental areas that our audit is concentrated on due to the Group operating in a number of tax jurisdictions, the complexities of transfer pricing and other international tax legislation and the time taken for tax matters to be agreed with the tax authorities. The complexity is increased as a result of acquisitions and restructuring activities in the current year.

Taxation

 The Group has a number of open enquiries and where tax positions are not settled with tax authorities, the Directors take into account precedent and the advice of experts.

Our response included the following audit procedures:

- Challenging the appropriateness of the assumptions applied and estimates made in relation to current tax liabilities by considering the range of possible outcomes that may be assessed under the applicable tax laws.
- Assessing the impact of recent acquisitions and restructuring of certain activities on the level of provisions and the judgements as to the likely outcomes of decisions made by the relevant tax authorities.
- Involving our own tax specialists to assist in critically assessing the assumptions used by reference to international and local tax legislation in different jurisdictions.
- Assessing whether the Group's tax disclosures set out in note 2.4 are appropriate and in accordance with relevant accounting standards.

Our application of materiality and an overview of the scope of our audit

The materiality for the Group financial statements as a whole was set at £1.5 million, determined with reference to a benchmark of Group profit before tax(1), (of which it represents 5%).

We report to the Audit Committee any corrected or uncorrected identified misstatements exceeding £75,000, in addition to other identified misstatements that warranted reporting on qualitative grounds.

The Group has 49 reporting components. The components within the scope of our work accounted for the percentages of the Group's results as shown in the chart below:

Components for which specified risk focused audit procedures were performed were not individually financially significant enough to require an audit for Group reporting purposes, but did present specific individual risks that needed to be addressed. The remaining 28% of total Group revenue, 22% of Group profit before tax and 19% of total Group assets is represented by 22 reporting components, none of which individually represented more than 15% of any of total Group revenue, Group profit before tax or total Group assets. For the remaining



An example of "more similar" RMM documentations (with following prior expert's wordings) (continued)

components, we performed analysis at an aggregated Group level to re-examine our assessment that there were no significant risks of material misstatement within these.

The Group audit team instructed component auditors as to the significant areas to be covered, including the relevant risks and the information to be reported back. The audits undertaken for Group reporting purposes at the key reporting components of the Group were all performed to a materiality level of £0.8 million set by the Group audit team, having regard to the mix of size and risk profile of the Group across the components. The Group audit team visited reporting components in the following locations: UK, US and Italy. Telephone conference meetings were also held with these component auditors and others that were not physically visited. At these visits and meetings, the findings reported to the Group audit team were discussed in more detail, and any further work required by the Group audit team was then performed by the component auditor. The work on 7 of the 27 components was performed by component auditors and the rest by the Group audit team.



An example of "less similar" RMM documentations (with an auditor's change): Compass Group plc 2013 & Compass Group plc 2014

Below I display RMM documentations of Compass Group plc in 2013, audited by Deloitte (with Graham Richardson as audit partner in London office), and Compass Group plc in 2014, audited by KPMG (with Anthony Sykes as audit partner in London office), respectively. Words in italic denote same wordings used in the two RMM reporting. RMM topics are denoted in text boxes.

RMM documentation of Compass Group plc 2013:

Our assessment of risks of material misstatement

The assessed *risks of material misstatement* described below are those *that had the greatest effect on our audit* strategy, the allocation of resources in the audit, and directing the efforts of the engagement team:

Revenue recognition

revenue recognition, including the judgement around cut-off of revenue recognition in accordance with contractual terms on multi-year contracts, which impacted reported results;

Impairment

the assessment of the carrying value of *goodwill* and intangible assets, particularly in respect of the Group's interests *in the UK*; and

RMM documentation of Compass Group plc 2014:

OUR ASSESSMENT OF RISKS OF MATERIAL MISSTATEMENT

In arriving at our audit opinion above on the financial statements the *risks of material misstatement that had the greatest effect on our audit* were as follows:

VALUATION OF GOODWILL

Impairment

Refer to page 52 (Governance and Directors' Report), page 89 (accounting policy) and page 104 (financial disclosures).

- The risk: The Group's balance sheet includes a significant UK goodwill balance relating to historical acquisitions. The risk is that the aggregated book value of the goodwill in the UK exceeds its recoverable amount and therefore should be written down in value. This is due to changes in the discount rate applied and changes in long term growth expectations. Due to the inherent uncertainty involved in forecasting and discounting future cash flows, which are the basis of the assessment of recoverability, this is one of the key judgmental areas that our audit is concentrated on.
- Our response: In this area our audit procedures included, among others, testing of the Group's budgeting procedures upon which the forecasts are based and the principles and integrity of the UK's discounted *cash flow* model. We evaluated the *assumptions* and methodologies used by the UK, in particular those relating to the forecast revenue growth and working capital, including assessing the reasonableness of the forecast revenue growth against historical growth rates. We compared the UK's assumptions to externally derived data as well as our own assessments in relation to key inputs such as projected economic growth and *discount rates*, as well as performing a *sensitivity* analysis on the assumptions. We also assessed the adequacy of the Group's disclosures in respect of goodwill by reference to relevant accounting standards.

TAXATION

Taxation

Refer to page 52 (Governance and Directors' Report), page 89 (accounting policy)

Taxation

the Group's exposure to significant *tax risks* and the level of provisions recognised, given the estimation uncertainty in respect of settlements with *tax authorities* around the world.



An example of "less similar" RMM documentations (with an auditor's change) (continued)

Our audit procedures relating to these matters were designed in the context of our audit of the financial statements as a whole, and not to express an opinion on individual accounts or disclosures. Our opinion on the financial statements is not modified with respect to any of the risks described above, and we do not express an opinion on these individual matters.

Our application of materiality

We determined planning *materiality for the Group* to be £54 *million* which is approximately 5% of pre-tax profit from continuing operations before exceptional items, and below 2% of equity. We use pre-tax profit from continuing operations before exceptional items to exclude the effect of volatility (for example, the European exceptional and goodwill impairment) from our determination.

We agreed with the Audit Committee that we would report to them all audit differences in excess of £1 million, as well as differences below that threshold that, in our view warranted reporting on qualitative grounds.

An overview of the scope of our audit

Our Group audit scope focused primarily on the audit work at 23 countries. Each of these 23 countries was subject to a full audit. These 23 countries represent the principal business units within the Group's three reportable segments and account for 88% of the Group's revenues, 87% of pre-tax profit from continuing operations before exceptional items and 89% of net assets. They were also selected to provide an appropriate basis for undertaking audit work to address the risks of material

and page 132 (financial disclosures).

- The risk: Provisions for direct and indirect tax contingencies require the
 directors to make judgements and estimates in relation to tax risks and
 exposures. This is one of the key judgemental areas that our audit is
 concentrated on due to the Group operating in a number of tax jurisdictions,
 the complexities of transfer pricing and other international tax legislation, as
 well as the time taken for tax matters to be agreed with the tax authorities.
- Our response: In this area our audit procedures for direct and indirect taxes included, among others, the use of internal tax specialists to analyse and challenge the assumptions used to determine provisions using our knowledge and experience of the application of international and local legislation by the relevant authorities and courts, and assessing whether the approach applied by the Group is supported by custom and practice in the industry. We have examined the calculations prepared by the directors and validated that they are supported by appropriate underlying data, and that the judgements applied are reasonable considering the maximum potential exposure and the likelihood of a payment being required. We have inspected correspondence with relevant tax authorities to identify tax risk areas and assessed third party tax advice received to ascertain whether it was reasonable to rely on conclusions drawn in the advice. Transfer pricing documentation was critically assessed to determine whether the tax positions taken by the Group were reasonable. We also considered the adequacy of the Group's disclosures in respect of tax and uncertain tax positions.

OUR APPLICATION OF MATERIALITY AND AN OVERVIEW OF THE SCOPE OF OUR AUDIT

The *materiality for the Group* financial statements as a whole was set at £60.0 *million*. This has been determined with reference to a benchmark of Group profit before taxation (of which it represents 5%).

We report to the Audit Committee any corrected or uncorrected identified misstatements exceeding £1.8 million, in addition to other identified misstatements below that threshold where in aggregate the effect on individual financial statement captions is over £1.8 million or which warranted reporting on qualitative grounds.

Of the Group's reporting components, we subjected the key reporting component in the US and 42 other components to audits for Group reporting purposes. The components within the scope of our work accounted for 95% *of the Group's revenue*, 95% of the Group's profit before tax, and 95% of the Group's total *assets*.

The Group audit team approved the component materialities which ranged from



An example of "less similar" RMM documentations (with an auditor's change) (continued)

misstatement identified above. Statutory audits were performed at a further 20 countries, which represent a further 5% of the Group's total revenues, 6% of profit before tax and 1% of net assets. Where possible, the timing of statutory audits is aligned to the full scope timetable, however the performance and outcome from these audits does not impact our overall opinion on the Group financial statements. Our audit work at the 23 principal countries and the statutory audits were executed at levels of materiality applicable to each individual entity which were lower than Group materiality.

The Group audit team has designed and implemented a rotational country visit programme so that the Senior Statutory Auditor or another senior member of the Group audit team, visits key countries. Those countries covered 75% of Group revenue. Each year this programme of visits includes the three most significant countries which comprise 59% of Group revenue. For the remaining countries where group audit work is performed but no visit is carried out, the Senior Statutory Auditor has discussed and challenged the key areas of judgement with the lead partner in the current year. We held regional briefings, attended by the component auditor from each of the 23 principal countries discussed above, at which we discussed developments in the Group relevant to our audit, including risk assessment and audit procedures to respond to significant risks.

The way in which we scoped our response to the risks identified above was as follows:

- we evaluated the controls over revenue recognition, including the timing of revenue recognition and the accounting for contractual terms and one-off items, performed substantive testing, analytical procedures and assessed whether the revenue recognition policies adopted complied with IFRSs;
- we challenged management's assumptions used in the impairment model for goodwill and intangible assets, described in note 10 to the financial statements, including specifically the cash flow projections, the discount rate, perpetuity rates applied to those cash flows, and the sensitivities used, particularly in respect of the Group's interests in the UK; and
- we considered the appropriateness of management's assumptions and
 estimates in relation to the level of provisions recognised and the allocation of
 tax charge between continuing and discontinuing operations, and performed
 substantive testing on significant tax exposures, including sales tax and social
 taxes.

The Audit Committee's consideration of these risks is set out on page 49.

 $\pounds 0.1$ million to $\pounds 46.0$ million having regard to the mix of size and risk profile of the Group across the components.

The Group audit team instructed component auditors as to the significant areas to be covered, including the relevant risks described above and the information to be reported back.

The Group audit team visited the US key reporting component and a further 18 locations covering 87% of Group revenue. Telephone meetings were also held with these component auditors and all other components that were not physically visited.

At these visits and meetings, the findings reported to the Group audit team were discussed in more detail, and any further work required by the Group audit team was then performed by the component auditor.



An example of following prior expert's RMM topic choice: Acal plc 2015 & BAE Systems plc 2014

Below I display abstracts of RMM documentations of Acal plc 2014, audited by EY (with Nick Powell as audit partner in London office), Acal plc 2015, audited by EY (with Nick Powell as audit partner in London office), and BAE Systems plc 2014, audited by KPMG (with Ian Starkey as audit partner in London office), respectively. RMM topics are denoted in text boxes.

RMM documentation abstract of Acal plc 2014:

We identified the following risks that we believe have the greatest impact on our audit strategy and scope; the allocation of resources in the audit; and directing the efforts of the engagement team:

Impairment

the potential impairment of goodwill and other non-current assets; incorrect valuation of the defined benefit pension scheme liability; Pension

Acquisition / disposal

Revenue recognition

Revenue recognition

the presentation of items as exceptional.

Exceptional item

RMM documentation abstract of Acal plc 2015:

Acquisition / disposal

Accounting for acquisitions

Noratel represents a significant acquisition to the Group. The acquisition generated provisional goodwill of £31.2m, intangible assets of £13.9m and contributed an additional £55.1m of revenue and £3.1m of post-tax earnings. In addition to an increased presence in Europe, the Group also increased its presence in China and has entered new territories including India, Sri Lanka and the United States.

The Group also completed a smaller acquisition of Foss AB, which generated provisional goodwill of £5.4m and intangible assets of £3.3m. This acquisition completed on 7 January 2015 and therefore resulted in a smaller contribution to revenue and post-tax earnings.

Revenue recognition

Revenue recognition

Group revenue substantially arises from the sale of goods. The timing of revenue recognition depends on the terms of individual transactions, which is typically on despatch.

Exceptional item

The presentation of items as exceptional

The Group reports its performance using a combination of statutory and underlying performance measures and includes supplementary income statement information within the primary statements.

The recognition and valuation of judgmental provisions

The Group carries judgmental provisions in respect of the following:

Provisioning

- Warranty obligations arising from the sale of goods. The Group identifies specific instances where a warranty exposure has arisen and records its best estimate of its future obligation;
- Severance obligations that are payable on termination of employment or retirement. The recognition of such obligations depends on international requirements in various jurisdictions within which the Group operates;
- Judgmental restructuring accruals, which are recognised when the group has entered into a committed plan to restructure its operations;
- Onerous contract commitments where the costs of fulfilling the terms of a contract exceed the benefit to be received;
- Dilapidation obligations, which arise from the numerous leasehold building obligations that the Group has entered into. The Group records a provision where a restoration obligation exists and a reliable estimate can be identified.

Current tax provisions

Taxation

The level of current tax liability recognised requires judgment regarding the likely outcome of decisions to be made by the relevant tax authorities across the large number of tax jurisdictions in which the Group operates.



There is a risk that the judgments on which tax liabilities are based do not take into account or properly reflect the latest available tax information or an appropriate application of tax legislation, and as a result the Group's tax liabilities are either over or understated.

RMM documentation abstract of BAE Systems plc 2014:

Revenue recognition

Recognition of revenues and profits on long-term contracts

A significant proportion of the Group's revenues and profits are derived from long-term contracts.

These contracts include complex technical and commercial risks and often specify performance milestones to be achieved throughout the contract period, which can last many years. This results in estimates and assumptions being made to:

- assess the proportion of revenues to recognise in line with contract completion;
- forecast the profit margin on each contract after making appropriate allowances for technical and commercial risks related to performance milestones yet to be achieved; and
- appropriately provide for loss-making contracts.

Carrying value of US goodwill (£7.3bn)

Impairment

An impairment charge of £87m was recognised against the US Cash-Generating Units in the period (2013 £865m impairment).

The uncertainty over future US defence spending and the importance of securing certain export contracts increases the risk that the goodwill allocated to the Group's US Cash-Generating Units will not be recoverable.

Due to the inherent uncertainty involved in forecasting and discounting future cash flows, which are the basis of the assessment of recoverability, this is one of the key judgemental areas that our audit is concentrated on.

Pension

Retirement benefit obligations (£5.5bn)

As presented in note 21 of the financial statements, the Group's share of the pension schemes' net deficit was £5.5bn after allocating £1.4bn to equity accounted investments and other participating employers.

Small changes in assumptions and estimates used to value the Group's retirement benefit obligation, including those supporting the proportion allocated to equity accounted investments and other participating employers, have a significant impact on the Group's share of the retirement benefit obligation.

Tax accruals

Taxation

Accruals for tax contingencies require the directors to make judgements and estimates in relation to tax risks. This is one of the key judgemental areas that our audit is concentrated on due to the Group operating in a number of tax jurisdictions and the complexities of international tax legislation.

The tax matters are at various stages, from preliminary discussions with tax authorities through to tax tribunal or court proceedings where the matters can take many years to resolve. The risk to the financial statements is that the eventual resolution of a matter with tax authorities is at an amount materially different to the estimated accrual.



Appendix B Variables description

 $\begin{aligned} \textit{Sim_score} &= \alpha + \beta_1 \textit{Same}(\textit{Auditor}) + \beta_2 \textit{Same}(\textit{AuditOffice}) + \beta_3 \textit{Same}(\textit{AuditPartner}) + \beta_4 \textit{Same}(\textit{Ind}) + \\ & \beta_5 \textit{Diff}(\textit{Size}) + \beta_6 \textit{Diff}(\textit{Lev}) + \beta_7 \textit{Diff}(\textit{ROA}) + \beta_8 \textit{Diff}(\textit{ExtraOrdinaryItem}) + \beta_9 \textit{Diff}(\textit{InAge}) + \\ & \beta_{10} \textit{Both}(\textit{Big4}) + \beta_{11} \textit{Diff}(\textit{AuditFirmIndExp}) + \beta_{12} \textit{Diff}(\textit{InAbAuditFee}) + \beta_{13} \textit{Diff}(\textit{InWordcount}) + \\ & \beta_{14} \textit{Note_Sim_score} + \textit{Year} \textit{FE} + \varepsilon \end{aligned}$

Main variables

- Sim_score is the percentage score of textual similarity of two whole audit reports (FULL_Sim_score) or two RMM documentations (RMM_Sim_score) calculated according to Hoberg and Phillips (2016) method.
- Same(Auditor) = 1 if the client firm and the pairwise compared firm in the same year are audited by the same auditor; and 0 otherwise.
- Same(AuditOffice) = 1 if the client firm and the pairwise compared firm in the same year are audited by the same audit office in the same audit firm; and 0 otherwise.
- Same(AuditPartner) = 1 if the client firm and the pairwise compared firm in the same year are audited by the same audit partner in the same audit firm; and 0 otherwise.
- Both(Deloitte) = 1 if the client firm and the pairwise compared firm in the same year are audited by Deloitte; and 0 otherwise.
- Both(EY) = 1 if the client firm and the pairwise compared firm in the same year are audited by EY; and 0 otherwise.
- Both(KPMG) = 1 if the client firm and the pairwise compared firm in the same year are audited by KPMG; and 0 otherwise.
- Both(PwC) = 1 if the client firm and the pairwise compared firm in the same year are audited by PwC; and 0 otherwise.
- Both(DeloitteOffice) = 1 if the client firm and the pairwise compared firm in the same year are audited by the same Deloitte office; and 0 otherwise.

Control variables

- Same(Ind) = 1 if the client firm and the pairwise compared firm are in the same industry; and 0 otherwise.
- Diff(Size) is the absolute difference of the natural logarithm of total assets between the client firm and the pairwise compared firm.
- Diff(Lev) is the absolute difference of total debts scaled by total assets between the client firm and the pairwise compared firm.
- Diff(ROA) is the absolute difference of income scaled by total assets between the client firm and the pairwise compared firm.
- Diff(ExtraOrdinaryItem) is the absolute difference of extraordinary items scaled by total assets between the client firm and the pairwise compared firm.

- Both(EYOffice) = 1 if the client firm and the pairwise compared firm in the same year are audited by the same EY office; and 0 otherwise.
- Both(KPMGOffice) = 1 if the client firm and the pairwise compared firm in the same year are audited by the same KPMG office; and 0 otherwise.
- Both(PwCOffice) = 1 if the client firm and the pairwise compared firm in the same year are audited by the same PwC office; and 0 otherwise.
- Both(DeloittePartner) = 1 if the client firm and the pairwise compared firm in the same year are audited by the same Deloitte partner; and 0 otherwise.
- Both(EYPartner) = 1 if the client firm and the pairwise compared firm in the same year are audited by the same EY partner; and 0 otherwise.
- Both(KPMGPartner) = 1 if the client firm and the pairwise compared firm in the same year are audited by the same KPMG partner; and 0 otherwise.
- Both(PwCPartner) = 1 if the client firm and the pairwise compared firm in the same year are audited by the same PwC partner; and 0 otherwise.
- Same(Ind(Same(Auditor)) = 1 if the client firm and the
 pairwise compared firm are in the same industry-year
 and audited by the same auditor; and 0 otherwise.
- Same(Ind(Diff(Auditor)) = 1 if the client firm and the pairwise compared firm are in the same industry-year and audited by two different auditors; and 0 otherwise.
- Diff(InAge) is the absolute difference of firm's age between the client firm and the pairwise compared firm; firm's age is the number of years since the firm is listed on the LSE.
- Both(Big4) = 1 if the client firm and the pairwise compared firm are audited by a Big 4 auditor; and 0 otherwise.
- Diff(AuditFirmIndExp) is the absolute difference of audit firm industry expertise between the client firm and the pairwise compared firm; audit firm industry expertise is calculated as:
- ln(sum of total assets of audit firm's clients in an industry-year)
 ln(sum of total assets of firms in an industry-year)



Control variables (continued)

 $\label{eq:difference} \begin{tabular}{l} \textit{Diff(lnAbAuditFee)} is the absolute difference of the natural logarithm of abnormal audit fee between the client firm and the pairwise compared firm; abnormal audit fee is estimated from the following regression model: <math display="block"> lnAuditFee = \alpha + \beta_1 lnTotalAsset + \beta_2 Lev + \beta_3 ROA + \beta_4 BTM + \beta_5 Loss + \beta_6 ExtraOrdinaryItem + \beta_7 GC + \beta_8 Busy + \beta_9 Big4 + \beta_{10} NewAuditor + \beta_{11} AuditFirmIndExp + \beta_{12} lnReportLag + Year FE + Industry FE. \end{tabular}$

Diff(lnWordcount) is the absolute difference of the natural logarithm of whole audit report word count (Diff(lnFULLwordcount)) or RMM documentation word count (Diff(lnRMMwordcount)) between the client firm and the pairwise compared firm.

Note_Sim_score is the percentage score of textual similarity of two management's accounting policies disclosures according to Hoberg and Phillips (2016) method.

```
Sim\_score = \alpha + \beta_1 Change(Auditor) or Change(AuditOffice) or Change(AuditPartner) + \beta_2 Diff(Size) + \beta_3 Diff(Lev) + \beta_4 Diff(ROA) + \beta_5 Diff(ExtraOrdinaryItem) + \beta_6 Diff(InAge) + \beta_7 Diff(AuditFirmIndExp) + \beta_8 Diff(InAbAuditFee) + \beta_9 Diff(InWordcount) + \beta_{10} Note\_Sim\_score + Year FE + Firm FE + <math>\varepsilon
```

Main variables

Change(Auditor) = 1 if there has been an auditor change for the same client firm in consecutive years; and 0 otherwise.

Change(AuditOffice) = 1 if there has been an audit office change in addition to an auditor change for the same client firm in consecutive years; and 0 otherwise.

Change(AuditPartner) = 1 if there has been an audit partner
 change in addition to an auditor change for the same
 client firm in consecutive years; and 0 otherwise.

Same(FirmChange(Off)) = 1 if there has been an audit office rotation of the same audit firm for the same client firm in consecutive years; and 0 otherwise.

Same(FirmChange(Ptn)) = 1 if there has been an audit
 partner rotation of the same audit firm for the same
 client firm in consecutive years; and 0 otherwise.

*Other main variable has been defined as above.

Control variables

*Control variables have been defined as above.

```
Sim\_score = \alpha + \beta_1 PriorIndExp + \beta_2 Same(Year) + \beta_3 Diff(Size) + \beta_4 Diff(Lev) + \beta_5 Diff(ROA) \\ + \beta_6 Diff(ExtraOrdinaryItem) + \beta_7 Diff(lnAge) + \beta_8 Both(Big4) + \beta_9 Diff(AuditFirmIndExp) \\ + \beta_{10} Diff(lnAbAuditFee) + \beta_{11} Diff(lnWordcount) + \beta_{12} Note\_Sim\_score + Year FE + Industry FE + \varepsilon
```

Main variables

PriorIndExp = 1 if the same-industry pairwise compared firm is audited by an industry audit expert in prior year (prior expert); and 0 otherwise.

*Other main variable has been defined as above.

Control variables

Same(Year) = 1 if the client firm and the pairwise compared firm are in the same industry-year; and 0 otherwise. *Other control variables have been defined as above.

```
Sim\_score = \alpha + \beta_1 PriorIndExp + \beta_2 Condition + \beta_3 PriorIndExp * Condition + \beta_4 Same(Year) + \beta_5 Diff(Size) + \beta_6 Diff(Lev) + \beta_7 Diff(ROA) + \beta_8 Diff(ExtraOrdinaryItem) + \beta_9 Diff(InAge) + \beta_{10} Both(Big4) + \beta_{11} Diff(AuditFirmIndExp) + \beta_{12} Diff(InAbAuditFee) + \beta_{13} Diff(InWordcount) + \beta_{14} Note\_Sim\_score + Year FE + Industry FE + \varepsilon
```

Main variables

NonBig4 = 1 if the client firm is audited by a Non-Big 4 auditor; and 0 otherwise.

BasicMat = 1 if the client firm is in Basic Materials industry;
and 0 otherwise.

 $\mathit{GT} = 1$ if the client firm is audited by Grant Thornton; and 0 otherwise.

BDO = 1 if the client firm is audited by BDO; and 0 otherwise.

PriorIE_Deloitte = 1 if the same-industry pairwise
 compared firm is audited by a prior expert (Deloitte);
 and 0 otherwise.

PriorIE_EY = 1 if the same-industry pairwise compared firm is audited by a prior expert (EY); and 0 otherwise.

PriorIE_KPMG = 1 if the same-industry pairwise compared firm is audited by a prior expert (KPMG); and 0 otherwise.

PriorIE_PwC = 1 if the same-industry pairwise compared firm is audited by a prior expert (PwC); and 0 otherwise.

SmallSize = 1 if the client firm is of the bottom tertile size (measured by total assets) in the industry; and 0 otherwise.



Main variables (continued)

Both(NewEquity) = 1 if the client firm and the sameindustry pairwise compared firm have issued new equity in the year; and 0 otherwise.

Both(MA) = 1 if the client firm and the same-industry pairwise compared firm have had mergers and acquisitions in the year; and 0 otherwise.

Both(NewDebt) = 1 if the client firm and the same-industry pairwise compared firm have issued new debt in the year; and 0 otherwise.

*Other main variables have been defined as above.

Control variables

*Control variables have been defined as above.

```
 \begin{aligned} \Pr[Include] &= \alpha + \sum_{1}^{n} \beta_{n}(Size*RMM\_Topic_{n}) + \sum_{1}^{n} \beta_{n}(Lev*RMM\_Topic_{n}) + \sum_{1}^{n} \beta_{n}(ROA*RMM\_Topic_{n}) + \\ & \sum_{1}^{n} \beta_{n}(ExtraOrdinaryItem*RMM\_Topic_{n}) + \sum_{1}^{n} \beta_{n}(InAge*RMM\_Topic_{n}) + \\ & \sum_{1}^{n} \beta_{n}(Loss*RMM\_Topic_{n}) + \sum_{1}^{n} \beta_{n}(GC*RMM\_Topic_{n}) + \sum_{1}^{n} \beta_{n}(MA\_num*RMM\_Topic_{n}) + \\ & \sum_{1}^{n} \beta_{n}(NewEquity\_num*RMM\_Topic_{n}) + \sum_{1}^{n} \beta_{n}(IPO*RMM\_Topic_{n}) + \sum_{1}^{n} \beta_{n}(Busy*RMM\_Topic_{n}) + \\ & \sum_{1}^{n} \beta_{n}(NewAuditor*RMM\_Topic_{n}) + \sum_{1}^{n} \beta_{n}(AuditFirmIndExp*RMM\_Topic_{n}) + \sum_{1}^{n} \beta_{n}(InAbAuditFee*RMM\_Topic_{n}) + \sum_{1}^{n} \beta_{n}(Deloitte*RMM\_Topic_{n}) + \sum_{1}^{n} \beta_{n}(EY*RMM\_Topic_{n}) + \sum_{1}^{n} \beta_{n}(KPMG*RMM\_Topic_{n}) + \sum_{1}^{n} \beta_{n}(PwC*RMM\_Topic_{n}) + \sum_{1}^{n} \beta_{n}(PwC
```

Main variables

Include = 1 if the audit report includes the specific RMM topic; and = 0 otherwise.

Control variables

RMM_Topic is the code for various RMM topics (1 to 25).

Size is the natural logarithm of the client firm's total assets.

Lev is the client firm's total debts scaled by total assets.

ROA is the client firm's income scaled by total assets.

ExtraOrdinaryItem is the client firm's extraordinary items scaled by total assets.

InAge is the client firm's firm age.

Loss = 1 if the client firm has a negative income; and 0 otherwise.

GC = 1 if the client firm has a going concern opinion; and 0 otherwise.

MA_num is the number of mergers and acquisitions the client firm has undergone in the year.

NewEquity_num is the number of new equity issuances the client firm has undertaken in the year.

IPO = 1 if the client firm has undergone IPO; and 0 otherwise.

Busy = 1 if the client firm's fiscal month end is December; and 0 otherwise.

NewAuditor = 1 if there has been an auditor change in the year; and 0 otherwise.

AuditFirmIndExp is calculated as:

ln(sum of total assets of audit firm's clients in an industry-year)
ln(sum of total assets of firms in an industry-year)

InAbAuditFee is the natural logarithm of the client firm's abnormal audit fee estimated from the following regression mode: $lnAuditFee = \alpha + \beta_1 lnTotalAsset + \beta_2 Lev + \beta_3 ROA + \beta_4 BTM + \beta_5 Loss + \beta_6 ExtraOrdinaryItem + \beta_7 GC + \beta_8 Busy + \beta_9 Big4 + \beta_{10} NewAuditor + \beta_{11} AuditFirmIndExp + \beta_{12} lnReportLag + Year FE + Industry FE.$

Deloitte = 1 if the client firm is audited by Deloitte; and 0 otherwise.

EY = 1 if the client firm is audited by EY; and 0 otherwise.

 $\mathit{KPMG} = 1$ if the client firm is audited by KPMG; and 0 otherwise.

PwC = 1 if the client firm is audited by PwC; and 0 otherwise.

```
\begin{split} Diff(RMM) &= \alpha + \pmb{\beta_1 Same}(Auditor) + \pmb{\beta_2 Same}(AuditOffice) + \pmb{\beta_3 Same}(AuditPartner) + \beta_4 Same(Ind) + \\ & \beta_5 Diff(Size) + \beta_6 Diff(Lev) + \beta_7 Diff(ROA) + \beta_8 Diff(ExtraOrdinaryItem) + \beta_9 Diff(InAge) + \\ & \beta_{10} Diff(MA\_num) + \beta_{11} Diff(NewEquity\_num) + \beta_{12} Both(GC) + \beta_{13} Both(IPO) + \beta_{14} Both(Big4) + \\ & \beta_{15} Diff(AuditFirmIndExp) + \beta_{16} Diff(InAbAuditFee) + \beta_{17} Diff(InReportLag) + Year FE + \\ & Industry FE + \varepsilon \end{split}
```

Main variables

Diff(RMM) is the absolute difference of the number of RMMs between the client firm and the compared pairwise firm. *Other main variables have been defined as above.

Control variables

Diff(MA_num) is the absolute difference of the number of mergers and acquisitions between the client firm and the compared pairwise firm. Diff(NewEquity_num) is the absolute difference of the number of new equity issuances between the client firm and the compared pairwise firm.



Control variables (continued)

Both(GC) = 1 if the client firm and the compared pairwise firm have going concern opinion; and 0 otherwise.

Both(IPO) = 1 if the client firm and the compared pairwise firm have undergone IPO; and 0 otherwise.

Diff(InReportLag) is the absolute difference of the natural logarithm of the report lag between the client firm and the compared pairwise firm; report lag is calculated as the difference between the client firm's fiscal year end and audit report date.

*Other control variables have been defined as above.

```
\begin{split} \Pr[Same(RMM\_Topic)] &= \alpha + \beta_1 Same(Auditor) + \beta_2 Same(AuditPartner) + \beta_3 Same(Ind) + \beta_4 Diff(Size) + \\ & \beta_5 Diff(Lev) + \beta_6 Diff(ROA) + \beta_7 Diff(ExtraOrdinaryItem) + \beta_8 Diff(InAge) + \\ & \beta_9 Diff(MA\_num) + \beta_{10} Diff(NewEquity\_num) + \beta_{11} Both(GC) + \beta_{12} Both(IPO) + \\ & \beta_{13} Both(Big4) + \beta_{14} Diff(AuditFirmIndExp) + \beta_{15} Diff(InAbAuditFee) + \\ & \beta_{16} Diff(InReportLag) + Industry FE + \varepsilon \end{split}
```

Main variables

Same(RMM_Topic) = 1 if the client firm and the compared pairwise firm have both included any of the same RMM topics; and 0 otherwise.

*Other main variables have been defined as above.

Control variables

*Control variables have been defined as above.

$Pr[Same(RMM_SpecTopic)] = \alpha + \beta_1 Same(Auditor) + \varepsilon$

Main variables

Same(RMM_SpecTopic) = 1 if the client firm and the compared pairwise firm have both included the same specific RMM topic; and 0 otherwise.

*Other main variable has been defined as above.

```
RMM_{firm} = \alpha + \beta_1 PriorIndExp + \beta_2 RMM_{pairwise\ firm} + \beta_3 PriorIndExp * RMM_{pairwise\ firm} + \beta_4 Diff(Size) + \\ \beta_5 Diff(Lev) + \beta_6 Diff(ROA) + \beta_7 Diff(ExtraOrdinaryItem) + \beta_8 Diff(lnAge) + \beta_9 Loss + \beta_{10}GC + \\ \beta_{11} MA\_num + \beta_{12} NewEquity\_num + \beta_{13} IPO + \beta_{14} Busy + \beta_{15} NewAuditor + \beta_{16} Same(Auditor) + \\ \beta_{17} Both(Big4) + \beta_{18} Diff(AuditFirmIndExp) + \beta_{19} Diff(lnAbAuditFee) + \beta_{20} Diff(lnReportLag) + \\ Year\ FE + Industry\ FE + \varepsilon
```

Main variables

 RMM_{firm} is the number of RMMs of the client firm.

 $RMM_{pairwise\,firm}$ is the number of RMMs of the compared pairwise firm.

*Other main variable has been defined as above.

Control variables

*Control variables have been defined as above.

```
\Pr[Follow(RMM\_Topic)] = \\ \alpha + \beta_1 PriorIndExp + \beta_2 Diff(Size) + \beta_3 Diff(Lev) + \beta_4 Diff(ROA) + \\ \beta_5 Diff(ExtraOrdinaryItem) + \beta_6 Diff(lnAge) + \beta_7 Loss + \beta_8 GC + \beta_9 MA\_num + \\ \beta_{10} NewEquity\_num + \beta_{11} IPO + \beta_{12} Busy + \beta_{13} NewAuditor + \beta_{14} Same(Auditor) + \\ \beta_{15} Both(Big4) + \beta_{16} Diff(AuditFirmIndExp) + \beta_{17} Diff(lnAbAuditFee) + \\ \beta_{18} Diff(lnReportLag) + Industry FE + \varepsilon \\ \end{cases}
```

Main variables

Follow(RMM_Topic) = 1 if the client firm has followed any of the prior expert's RMM topic choice; and 0 otherwise. *Other main variable has been defined as above.

Control variables

*Control variables have been defined as above.

$Pr[Follow(RMM_SpecTopic)] = \alpha + \beta_1 PriorIndExp + \varepsilon$

Main variables

Follow(RMM_SpecTopic) = 1 if the client firm has followed the prior expert's specific RMM topic choice; and 0 otherwise. *Other main variable has been defined as above.



```
\begin{split} \Pr[Follow(RMM\_Topic)] &= \alpha + \beta_1 PriorIndExp + \beta_2 Condition + \pmb{\beta_3} PriorIndExp * Condition + \beta_4 Diff(Size) + \\ & \beta_5 Diff(Lev) + \beta_6 Diff(ROA) + \beta_7 Diff(ExtraOrdinaryItem) + \beta_8 Diff(lnAge) + \beta_9 Loss + \\ & \beta_{10}GC + \beta_{11}MA\_num + \beta_{12}NewEquity\_num + \beta_{13}IPO + \beta_{14}Busy + \beta_{15}NewAuditor + \\ & \beta_{16}Same(Auditor) + \beta_{17}Both(Big4) + \beta_{18}Diff(AuditFirmIndExp) + \\ & \beta_{19}Diff(lnAbAuditFee) + \beta_{20}Diff(lnReportLag) + \varepsilon \end{split}
```

Main variables

*Main variables have been defined as above.

Control variables

*Control variables have been defined as above.

 $Avg_SameAuditor_Sim_score = \alpha + Same(RMM_Topic)_num + YearFE + IndustryFE + \varepsilon$

Main variables

Avg_SameAuditor_Sim_score is the average RMM textual similarity score of a client firm in relation to other firms using the same auditor in the same year according to Hoberg and Phillips (2016) method.

Same(RMM_Topic)_num is the total number of same specific RMM topics shared by a client firm and other firms audited by the same auditor in the same year.

 $Avg_PriorIndExp_Sim_score = \alpha + \textbf{Same}(\textbf{RMM_Topic})_\textbf{num} \ or \ \textbf{Follow}(\textbf{RMM_Topic})_\textbf{num} + Year \ FE + Industry \ FE + \varepsilon$

Main variables

Avg_PriorIndExp_Sim_score is the average RMM textual similarity score of a client firm in relation to other firms in the same industry and audited by a prior expert according to Hoberg and Phillips (2016) method.

Same(RMM_Topic)_num is the total number of same specific RMM topics shared by a client firm and other sameindustry firms audited by a prior expert.

Follow(RMM_Topic)_num is the total number of a prior expert's RMM topics followed by a client firm.

 $\Pr[Same(AuditWork)] = \alpha + \beta_1 Same(Auditor) + \beta_2 Same(AuditPartner) + \beta_3 Same(Ind) + \beta_4 Diff(Size) + \beta_5 Diff(Lev) + \beta_6 Diff(ROA) + \beta_7 Diff(ExtraOrdinaryItem) + \beta_8 Diff(InAge) + \beta_9 Diff(MA_num) + \beta_{10} Diff(NewEquity_num) + \beta_{11} Both(GC) + \beta_{12} Both(IPO) + \beta_{13} Both(Big4) + \beta_{14} Diff(AuditFirmIndExp) + \beta_{15} Diff(InAbAuditFee) + \beta_{16} Diff(InReportLag) + Industry FE + \varepsilon$

Main variables

Same(AuditWork) = 1 if the client firm and the compared pairwise firm have both included any of the same audit work categories in response to any of the seven specific RMM topics; and 0 otherwise.

*Other main variables have been defined as above.

Control variables

*Control variables have been defined as above.

 $Pr[Same(SpecTopic_AuditWork)] = \alpha + \beta_1 Same(Auditor) \text{ or } Same(AuditPartner) + \varepsilon$

Main variables

Same(SpecTopic_AuditWork) = 1 if the client firm and the compared pairwise firm have both included any of the same audit work categories in response to the specific RMM topic; and 0 otherwise.

*Other main variables have been defined as above.

 $Pr[Same(SpecTopic_SpecAuditWork)] = \alpha + \beta_1 Same(Auditor) + \varepsilon$

Main variables

Same(SpecTopic_SpecAuditWork) = 1 if the client firm and the compared pairwise firm have both included the same audit work categories in response to the specific RMM topic; and 0 otherwise.

*Other main variable has been defined as above.



 $\Pr[Follow(AuditWork)] = \\ \alpha + \beta_1 PriorIndExp + \beta_2 Diff(Size) + \beta_3 Diff(Lev) + \beta_4 Diff(ROA) + \\ \beta_5 Diff(ExtraOrdinaryItem) + \beta_6 Diff(InAge) + \beta_7 Loss + \beta_8 GC + \beta_9 MA_num + \\ \beta_{10} NewEquity_num + \beta_{11} IPO + \beta_{12} Busy + \beta_{13} NewAuditor + \beta_{14} Same(Auditor) + \\ \beta_{15} Both(Big4) + \beta_{16} Diff(AuditFirmIndExp) + \beta_{17} Diff(InAbAuditFee) + \\ \beta_{18} Diff(InReportLag) + Industry FE + \varepsilon \end{aligned}$

Main variables

Follow(AuditWork) = 1 if the client firm has followed any of the prior expert's audit work choice; and 0 otherwise. *Other main variable has been defined as above.

Control variables

*Control variables have been defined as above.

$Pr[Follow(SpecTopic_AuditWork)] = \alpha + \beta_1 PriorIndExp + \varepsilon$

Main variables

Follow(SpecTopic_AuditWork) = 1 if the client firm has followed any of the prior expert's audit work choice in response to the specific RMM topic; and 0 otherwise.

*Other main variable has been defined as above.

$Pr[Follow(SpecTopic_SpecAuditWork)] = \alpha + \beta_1 PriorIndExp + \varepsilon$

Main variables

Follow(SpecTopic_SpecAuditWork) = 1 if the client firm has followed the prior expert's specific audit work choice in response to the specific RMM topic; and 0 otherwise.

*Other main variable has been defined as above.

```
\begin{split} \Pr[Follow(AuditWork)] &= \alpha + \beta_1 PriorIndExp + \beta_2 Condition + \beta_3 PriorIndExp * Condition + \beta_4 Diff(Size) + \\ & \beta_5 Diff(Lev) + \beta_6 Diff(ROA) + \beta_7 Diff(ExtraOrdinaryItem) + \beta_8 Diff(lnAge) + \beta_9 Loss + \\ & \beta_{10}GC + \beta_{11}MA\_num + \beta_{12} NewEquity\_num + \beta_{13}IPO + \beta_{14}Busy + \beta_{15} NewAuditor + \\ & \beta_{16}Same(Auditor) + \beta_{17}Both(Big4) + \beta_{18}Diff(AuditFirmIndExp) + \\ & \beta_{19}Diff(lnAbAuditFee) + \beta_{20}Diff(lnReportLag) + \varepsilon \end{split}
```

Main variables

*Main variables have been defined as above.

Control variables

LargeEarningsDiff = 1 if the change of ROA of the client firm is over 30%; and 0 otherwise.

LargeSizeDiff = 1 if the change of size of the client firm is over 30%; and 0 otherwise.

*Other control variables have been defined as above.

```
Sim\_score = eta_1 Same(NewAuditor) + eta_2 Same(OldAuditor) + eta_3 OtherAuditor + eta_4 Diff(Size) + eta_5 Diff(Lev) + eta_6 Diff(ROA) + eta_7 Diff(ExtraOrdinaryItem) + eta_8 Diff(lnAge) + eta_9 Both(Big4) + eta_{10} Diff(AuditFirmIndExp) + eta_{11} Diff(lnAbAuditFee) + eta_{12} Diff(lnWordcount) + eta_{13} Note\_Sim\_score + Year FE + Industry FE + Auditor FE + \varepsilon
```

Main variables

Same(NewAuditor) = 1 if the client firm and the sameindustry pairwise compared firm are audited by the same auditor in current year; and 0 otherwise.

Same(OldAuditor) = 1 if the client firm and the sameindustry pairwise compared firm are audited by the same auditor in prior year; and 0 otherwise.

Control variables

*Control variables have been defined as above.

OtherAuditor = 1 if both Same(NewAuditor) and Same(OldAuditor) equal 0; and 0 otherwise.

*Other main variable has been defined as above.

```
\Pr[Follow(SNA\_RMM\_Topic)] = \alpha + \beta_1 Same(NewAuditor) + \beta_2 Diff(Size) + \beta_3 Diff(Lev) + \beta_4 Diff(ROA) + \beta_5 Diff(ExtraOrdinaryItem) + \beta_6 Diff(InAge) + \beta_7 Loss + \beta_8 GC + \beta_9 MA\_num + \beta_{10} NewEquity\_num + \beta_{11} Busy + \beta_{12} Both(Big4) + \beta_{13} Diff(AuditFirmIndExp) + \beta_{14} Diff(InAbAuditFee) + \beta_{15} Diff(InReportLag) + Industry FE + \varepsilon
```

Main variables

 $Follow(SNA_RMM_Topic) = 1$ if the client firm has followed any of the ongoing clients' prior RMM topic choice; and 0 otherwise.

*Other main variable has been defined as above.



Control variables

*Control variables have been defined as above.

$Pr[Follow(SNA_RMM_SpecTopic)] = \alpha + \beta_1 Same(NewAuditor) + \varepsilon$

Main variables

Follow(SNA_RMM_SpecTopic) = 1 if the client firm has followed the ongoing clients' prior specific RMM topic choice; and 0 otherwise.

*Other main variable has been defined as above.

 $\Pr[Follow(SNA_AuditWork)] = \alpha + \beta_1 Same(NewAuditor) + \beta_2 Diff(Size) + \beta_3 Diff(Lev) + \beta_4 Diff(ROA) + \beta_5 Diff(ExtraOrdinaryItem) + \beta_6 Diff(InAge) + \beta_7 Loss + \beta_8 GC + \beta_9 MA_num + \beta_{10} NewEquity_num + \beta_{11} Busy + \beta_{12} Both(Big4) + \beta_{13} Diff(AuditFirmIndExp) + \beta_{14} Diff(InAbAuditFee) + \beta_{15} Diff(InReportLag) + Industry FE + \varepsilon$

Main variables

Follow(SNA_AuditWork) = 1 if the client firm has followed any of the ongoing clients' prior audit work choice; and 0 otherwise.

*Other main variable has been defined as above.

Control variables

*Control variables have been defined as above.

 $Pr[Follow(SNA_SpecTopic_AuditWork)] = \alpha + \beta_1 Same(NewAuditor) + \varepsilon$

Main variables

Follow(SNA_SpecTopic_AuditWork) = 1 if the client firm has followed any of the ongoing clients' prior audit work choice in response to the specific RMM topic; and 0 otherwise.

*Other main variable has been defined as above.

 $Pr[Follow(SNA_SpecTopic_SpecAuditWork)] = \alpha + \beta_1 Same(NewAuditor) + \varepsilon$

Main variables

Follow(SNA_SpecTopic_SpecAuditWork) = 1 if the client firm has followed the ongoing clients' prior specific audit work choice in response to the specific RMM topic; and 0 otherwise.

*Other main variable has been defined as above.

 $Sim_score = \begin{array}{l} \beta_1 Same(CurrentAuditor) + \beta_2 OtherAuditor + \beta_3 Diff(Size) + \beta_4 Diff(Lev) + \beta_5 Diff(ROA) + \\ \beta_6 Diff(ExtraOrdinaryItem) + \beta_7 Diff(InAge) + \beta_8 Both(Big4) + \beta_9 Diff(AuditFirmIndExp) + \\ \beta_{10} Diff(InAbAuditFee) + \beta_{11} Diff(InWordcount) + \beta_{12} Note_Sim_score + Year FE + Industry FE + \\ Auditor FE + \varepsilon \end{array}$

Main variables

Same(CurrentAuditor) = 1 if the client firm and the sameindustry pairwise compared firm are audited by the same auditor in current year; and 0 otherwise. OtherAuditor = 1 if Same(CurrentAuditor) equals 0; and 0 otherwise.

*Other main variable has been defined as above.

Control variables

*Control variables have been defined as above.

 $\Pr[Follow(SCA_RMM_Topic)] = \alpha + \beta_1 Same(CurrentAuditor) + \beta_2 Diff(Size) + \beta_3 Diff(Lev) + \beta_4 Diff(ROA) + \beta_5 Diff(ExtraOrdinaryItem) + \beta_6 Diff(InAge) + \beta_7 Loss + \beta_8 GC + \beta_9 MA_num + \beta_{10} NewEquity_num + \beta_{11} IPO + \beta_{12} Busy + \beta_{13} Both(Big4) + \beta_{14} Diff(AuditFirmIndExp) + \beta_{15} Diff(InAbAuditFee) + \beta_{16} Diff(InReportLag) + Industry FE + \varepsilon$

Main variables

Follow(SCA_RMM_Topic) = 1 if the client firm has followed any of the new client's prior RMM topic choice; and 0 otherwise. *Other main variable has been defined as above.

Control variables

*Control variables have been defined as above.



$Pr[Follow(SCA_RMM_SpecTopic)] = \alpha + \beta_1 Same(CurrentAuditor) + \varepsilon$

Main variables

Follow(SCA_RMM_SpecTopic) = 1 if the client firm has followed the new client's prior specific RMM topic choice; and 0 otherwise.

*Other main variable has been defined as above.

```
\Pr[Follow(SCA\_AuditWork)] = \alpha + \beta_1 Same(CurrentAuditor) + \beta_2 Diff(Size) + \beta_3 Diff(Lev) + \beta_4 Diff(ROA) + \beta_5 Diff(ExtraOrdinaryItem) + \beta_6 Diff(InAge) + \beta_7 Loss + \beta_8 GC + \beta_9 MA\_num + \beta_{10} NewEquity\_num + \beta_{11} IPO + \beta_{12} Busy + \beta_{13} Both(Big4) + \beta_{14} Diff(AuditFirmIndExp) + \beta_{15} Diff(InAbAuditFee) + \beta_{16} Diff(InReportLag) + Industry FE + \varepsilon
```

Main variables

Follow(SCA_AuditWork) = 1 if the client firm has followed any of the new client's prior audit work choice; and 0 otherwise. *Other main variable has been defined as above.

Control variables

*Control variables have been defined as above.

$Pr[Follow(SCA_SpecTopic_AuditWork)] = \alpha + \beta_1 Same(CurrentAuditor) + \varepsilon$

Main variables

Follow(SCA_SpecTopic_AuditWork) = 1 if the client firm has followed any of the new client's prior audit work choice in response to the specific RMM topic; and 0 otherwise.

*Other main variable has been defined as above.

$\Pr[Follow(SCA_SpecTopic_SpecAuditWork)] = \alpha + \beta_1 Same(CurrentAuditor) + \varepsilon$

Main variables

Follow(SCA_SpecTopic_SpecAuditWork) = 1 if the client firm has followed the new client's prior specific audit work choice in response to the specific RMM topic; and 0 otherwise.

*Other main variable has been defined as above.

Main variables

 ${\it lnAuditFee}$ is the natural logarithm of the client firm's audit fee.

InReportLag is the natural logarithm of the difference between the client firm's fiscal year end and audit report date.

Avg_SameAuditor_Sim_score is the average percentage score of textual similarity of whole audit report (Avg_SameAuditor_FULL_Sim_score) or RMM documentation (Avg_SameAuditor_RMM_Sim_score) of a client firm in relation to other firms using the same auditor in the same year according to Hoberg and Phillips (2016) method.

Control variables

NewDebt_num is the number of new debt issuances the client firm has undertaken in the year.

Big4 = 1 if the client firm is audited by a Big 4 auditor; and = 0 otherwise.

Avg_SameAuditPtn_Sim_score is the average percentage score of textual similarity of whole audit report (Avg_SameAuditPtn_FULL_Sim_score) or RMM documentation (Avg_SameAuditPtn_RMM_Sim_score) of a client firm in relation to other firms using the same audit partner in the same year according to Hoberg and Phillips (2016) method.

Avg_PriorIndExp_Sim_score is the average percentage score of textual similarity of whole audit report (Avg_PriorIndExp_FULL_Sim_score) or RMM documentation (Avg_PriorIndExp_RMM_Sim_score) of a client firm in relation to other firms in the same industry and audited by a prior expert according to Hoberg and Phillips (2016) method.

Avg_SameAuditor_Note_Sim_score is the average percentage score of textual similarity of management's accounting policies disclosures of a client firm in relation to other firms using the same auditor in the same year according to Hoberg and Phillips (2016) method.



Control variables (continued)

Avg_SameAuditPtn_Note_Sim_score is the average percentage score of textual similarity of management's accounting policies disclosures of a client firm in relation to other firms using the same audit partner in the same year according to Hoberg and Phillips (2016) method.

Avg_PriorIndExp_Note_Sim_score is the average percentage score of textual similarity of management's accounting policies disclosures of a client firm in relation to other same-industry firms audited by a prior expert according to Hoberg and Phillips (2016) method. RMM_Note_Sim_score is the percentage score of textual similarity of RMM documentation and management's accounting policies disclosure of the same client firm according to Hoberg and Phillips (2016) method.

*Other control variables have been defined as above

```
 \frac{lnAuditFee\ or}{lnReportLag} = \alpha + \beta_1 Follow(RMM\_Topic) + \beta_2 Size + \beta_3 Lev + \beta_4 ROA + \beta_5 Loss + \beta_6 ExtraOrdinaryItem + \beta_7 GC + \beta_8 MA\_num + \beta_9 NewDebt\_num + \beta_{10} NewEquity\_num + \beta_{11} Busy + \beta_{12} Big4 + \beta_{13} NewAuditor + \beta_{14} AuditFirmIndExp + \beta_{15} lnReportLag\ or\ lnAbAuditFee + Year\ FE + Industry\ FE + \varepsilon
```

Main variables

*Main variables have been defined as above.

Control variables

*Control variables have been defined as above.

Main variables

Follow(Spec_7_RMM_Topic) = 1 if the client firm has followed any of the seven specific prior expert's RMM topic choice; and 0 otherwise.

*Other main variables have been defined as above.

Control variables

*Control variables have been defined as above.

Main variables

 $Prior_Sim_score$ is the percentage score of textual similarity of whole audit report ($Prior_FULL_Sim_score$) or RMM documentation ($Prior_RMM_Sim_score$) of the same client firm in year t-1 and year t-2 according to Hoberg and Phillips (2016) method.

*Other main variables have been defined as above.

Control variables

Prior_Note_Sim_score is the percentage score of textual similarity of management's accounting policies disclosure of the same client firm in year t-1 and year t-2 according to Hoberg and Phillips (2016) method.

Prior_RMM_Note_Sim_score is the percentage score of textual similarity of RMM documentation and management's accounting policies disclosure of the same client firm in year t-1 and year t-2 according to Hoberg and Phillips (2016) method.

*Other control variables have been defined as above.

All continuous variables are winsorized at $1^{\rm st}$ and $99^{\rm th}$ percentiles. All time-series variables are constructed as: Variables x Year indicator.



Appendix C An example of topic generation with LDA

Appendix C provides an example of topic generation by adopting LDA. I adopt LDA for topic identification originally and generate topics ranging from 2 to 20. The below example is the output of 15 topics generation. It can be seen that key words of quite a lot of topics are duplicated and cannot classify topics clearly.

Topic 1	inventory, items, accounting, exceptional, risk, end, material, whether, rebate scope
Topic 2	revenue, risk, significant, focus, directors, tested, judgements, areas, evidence, recognition
Topic 3	property, valuation, investment, properties, risk, assumptions, portfolio, significant, accounting, external
Topic 4	risk, assumptions, misstatement, work, key, scope, significant, material, assessment, revenue
Topic 5	directors, accounting, assumptions, focus, also, revenue, development, area, future, forecasts
Topic 6	risk, impairment, key, significant, assessment, work, scope, material, assumptions, committee
Topic 7	assumptions, performed, impairment, considered, valuation, directors, focus, risk, also, operating
Topic 8	focus, area, scope, accounting, also, work, assumptions, performed, reporting, areas
Topic 9	risk, revenue, procedures, performed, components, scope, misstatement, material, performance, components, performance, components, performance, performance,
Topic 10	assumptions, controls, used, risk, key, valuation, impairment, data, accounting, significant
Topic 11	revenue, risk, scope, material, misstatement, recognition, procedures, assessment, significant, accounting
Topic 12	risk, assumptions, page, disclosures, significant, key, procedures, included, reporting, team
Topic 13	risk, performed, scope, procedures, components, component, impairment, key, revenue, significant
Topic 14	assumptions, accounting, pension, impairment, used, risk, goodwill, procedures, included, key
Topic 15	revenue, assumptions, profit, contracts, provisions, items, performed, material, scope, focus



Figures



Figure 1
Timeline of ISA (UK and Ireland) 700 adoption

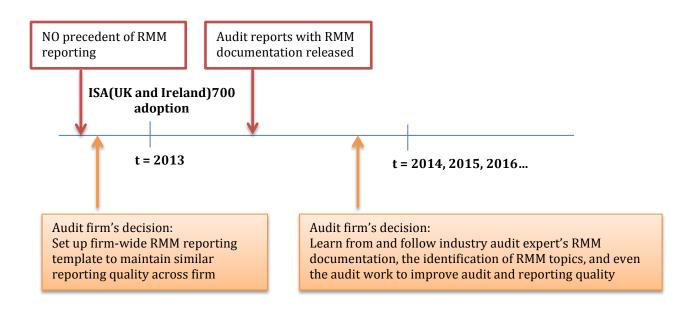


Figure 1 provides the timeline of ISA (UK and Ireland) 700 adoption. Before the implementation of ISA (UK and Ireland) 700, auditors only have principles of RMM documentation in the auditor's report. In order to maintain similar reporting quality across firm, audit firms may tend to set up their own RMM reporting template. After the first year of ISA (UK and Ireland) 700 implementation, auditors may now refer to the RMM documentation by the expert and learn the wordings, the identification of RMM topics and even the actual audit work to improve audit and reporting quality.



Figure 2 Illustration of following prior expert's RMM topic choice

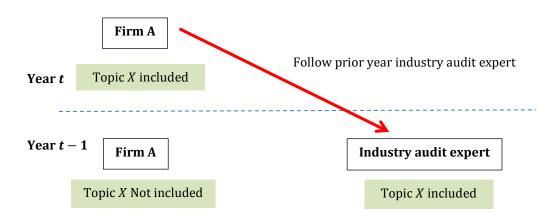


Figure 2 illustrates the definition of following prior expert's RMM topic choice, i.e. when a firm (Firm A) has not included a certain topic X while the expert has included topic X in year t-1, and Firm A includes topic X in year t.



Figure 3
Illustration of following prior expert's audit work choice

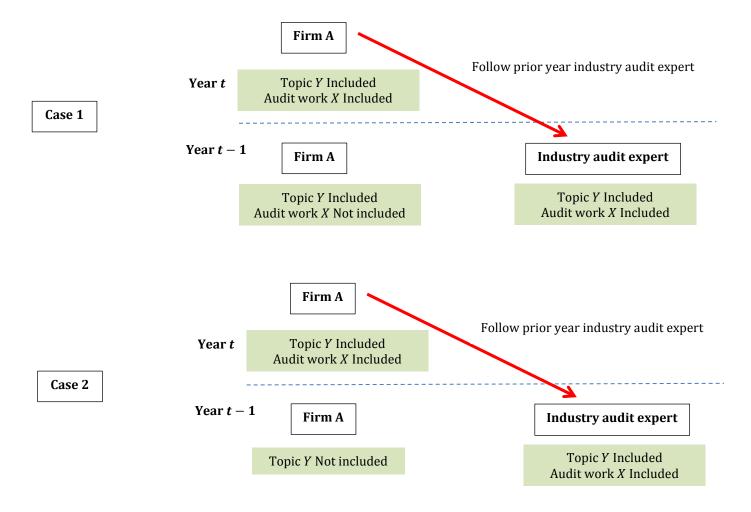


Figure 3 illustrates the definition of following prior expert's audit work choice, i.e. when a firm (Firm A) has not included a certain audit work X in response to a certain topic Y while the expert has included audit work X in year t-1, and Firm A includes audit work X in year t. There are two cases when it occurs. In one case, Firm A has kept the same RMM topic but changes its audit procedures in year t (Case 1). In another case, Firm A has included a new RMM topic in year t (Case 2).



Figure 4A Illustration of the effect on new client

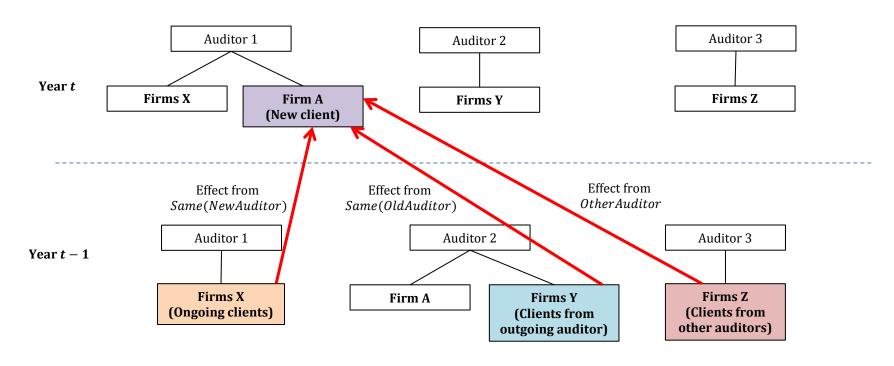


Figure 4A illustrates the scenario in which an auditor (Auditor 1) accepts a new client (Firm A) and how effect on the new client may occur.



Figure 4B Illustration of new client following ongoing clients' prior RMM topic choice

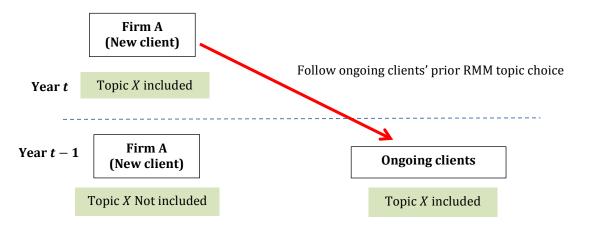




Figure 4B illustrates the definition of new client following ongoing clients' prior RMM topic choice, i.e. when the new client (Firm A) has not included a certain topic X while the ongoing clients have included topic X in year t-1, and Firm A includes topic X in year t.

Figure 4C Illustration of new client following ongoing clients' prior audit work choice

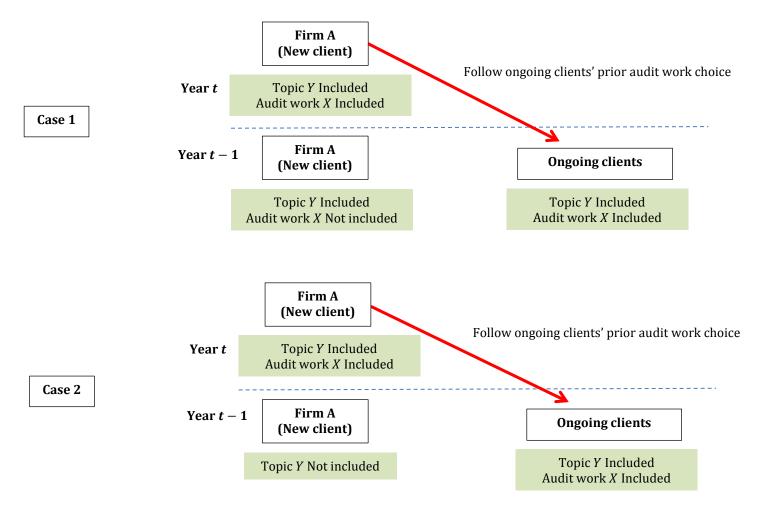


Figure 4C illustrates the definition of new client following ongoing clients' prior audit work choice, i.e. when the new client (Firm A) has not included a certain audit work X in response to a certain topic Y while the ongoing clients have included audit work X in year t-1, and Firm A includes audit work X in year t. There are two cases when it occurs. In one case, Firm A has kept the same RMM topic but changes its audit procedures in year t (Case 1). In another case, Firm A has included a new RMM topic in year t (Case 2).



Figure 5A Illustration of the effect of new client

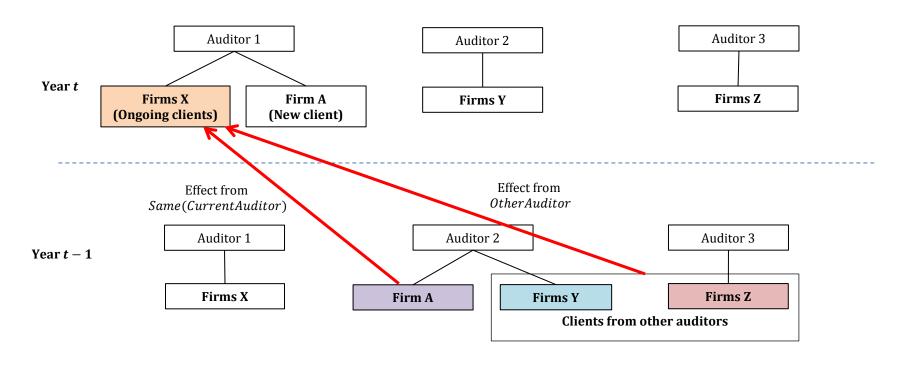


Figure 5A illustrates the scenario in which an auditor (Auditor 1) accepts a new client (Firm A) and how effect on the ongoing clients may occur.



Figure 5B Illustration of ongoing clients following new client's prior RMM topic choice

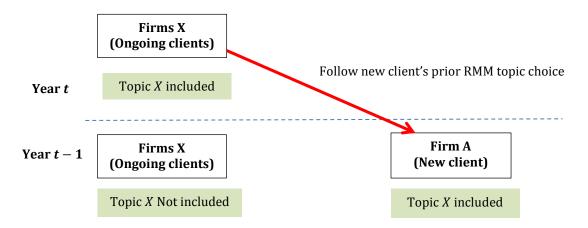




Figure 5B illustrates the definition of ongoing clients following new client's prior RMM topic choice, i.e. when the ongoing clients (Firms X) have not included a certain topic X while the new client (Firm A) has included topic X in year t-1, and Firms X include topic X in year t.

Figure 5C Illustration of ongoing clients following new client's prior audit work choice

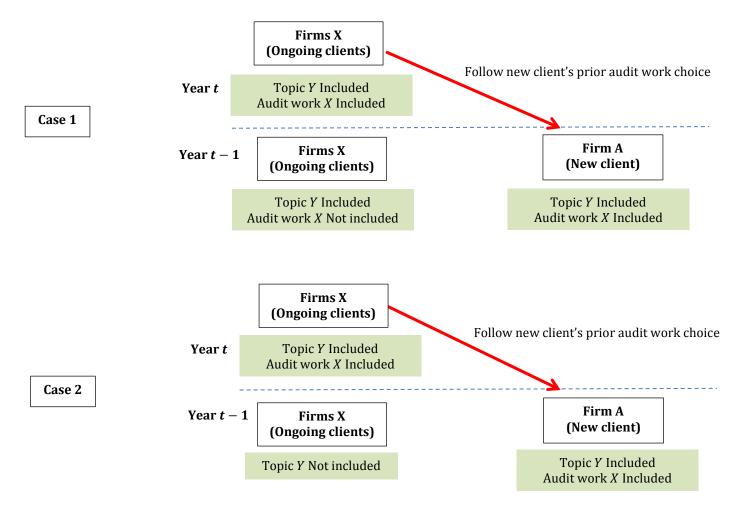


Figure 5C illustrates the definition of ongoing clients following new client's prior audit work choice, i.e. when the ongoing clients (Firms X) have not included a certain audit work X in response to a certain topic Y while the new client (Firm A) has included audit work X in year t-1, and Firms X include audit work X in year t. There are two cases when it occurs. In one case, Firms X have kept the same RMM topic but change their audit procedures in year t (Case 1). In another case, Firms X have included a new RMM topic in year t (Case 2).



Figure 6A RMM textual similarity within same auditors across years (constant sample)

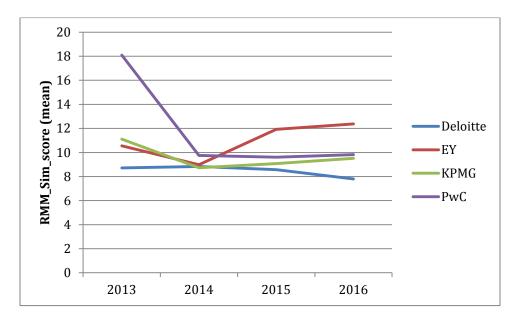


Figure 6B RMM textual similarity among different auditors across years (constant sample)

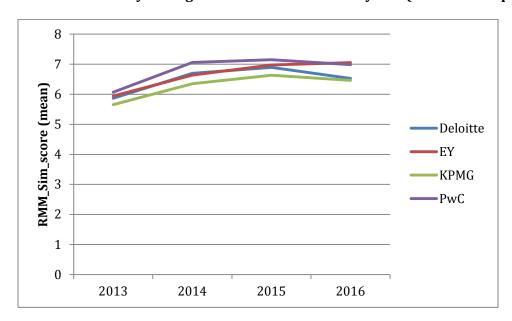


Figure 6A illustrates the textual similarity of RMM reporting by the same auditor in a constant sample across years. For example, Deloitte's line is the mean of RMM textual similarity of Firm A and Firm B, both audited by Deloitte in the same year. Textual similarity trend for Non-Big 4 auditors is not shown since the number of observations of Non-Big 4 auditors is too small and not representative (Deloitte: 6,431; EY: 1,635; KPMG: 4,954; PwC: 5,144; Non-Big 4: 88).

Figure 6B illustrates the textual similarity of RMM reporting among different auditors in a constant sample across years. For example, Deloitte's line is the mean of RMM textual similarity of Firm A, which is audited by Deloitte, and Firm B, which is audited by any auditor but Deloitte, in the same year. Textual similarity trend for Non-Big 4 auditors is not shown since the number of observations of Non-Big 4 auditors is too small and not representative (Deloitte: 19,842; EY: 16,186; KPMG: 22,065; PwC: 23,189; Non-Big 4: 5,222).



Figure 7A RMM textual similarity within same auditors across years (constant same industry sample)

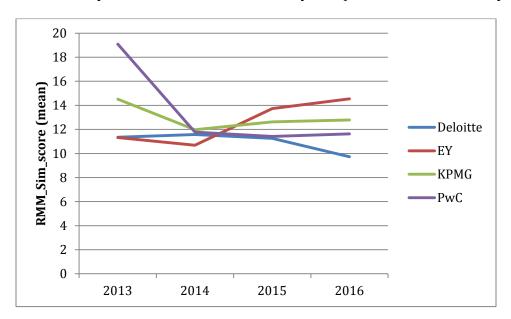


Figure 7B RMM textual similarity among different auditors across years (constant same industry sample)

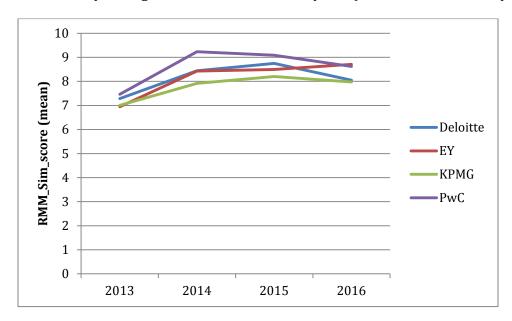


Figure 7A illustrates the textual similarity of RMM reporting by the same auditor in a constant same industry sample across years. For example, Deloitte's line is the mean of RMM textual similarity of Firm A and Firm B, both in the same industry and audited by Deloitte in the same year. Textual similarity trend for Non-Big 4 auditors is not shown since the number of observations of Non-Big 4 auditors is too small and not representative (Deloitte: 1,134; EY: 208; KPMG: 1,133; PwC: 853; Non-Big 4: 4).

Figure 7B illustrates the textual similarity of RMM reporting among different auditors in a constant same industry sample across years. For example, Deloitte's line is the mean of RMM textual similarity of Firm A, which is audited by Deloitte, and Firm B, which is in the same industry as Firm A and audited by any auditor but Deloitte, in the same year. Textual similarity trend for Non-Big 4 auditors is not shown since the number of observations of Non-Big 4 auditors is too small and not representative (Deloitte: 3,578; EY: 2,311; KPMG: 4,022; PwC: 4,041; Non-Big 4: 936).



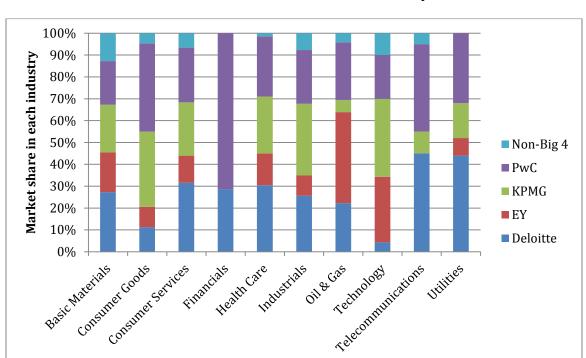


Figure 8
Auditors' market share in each industry



Figure 8 presents the market share of each auditor in each industry of all firm-year observations. Market share is measured by number of clients. Table 2 provides numerical breakdown of the market share in each industry.

Figure 9
Top 5 most common RMM topics inclusion trend

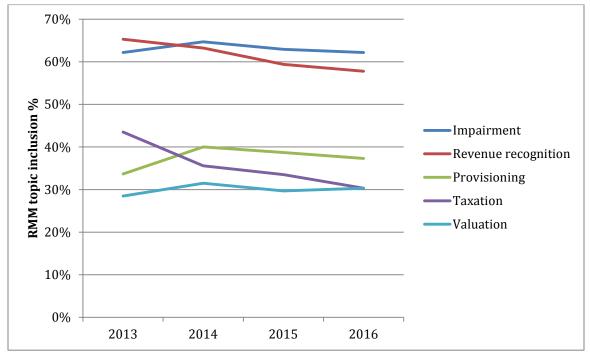


Figure 9 illustrates the inclusion trend of the top 5 most common RMM topics. Inclusion percentage is measured by number of audit reports in the same year including the specific RMM topic (i.e. *impairment, revenue recognition, provisioning, taxation*, or *valuation*) scaled by the total number of audit reports in the same year.



Figure 10
Number of RMMs included by auditors

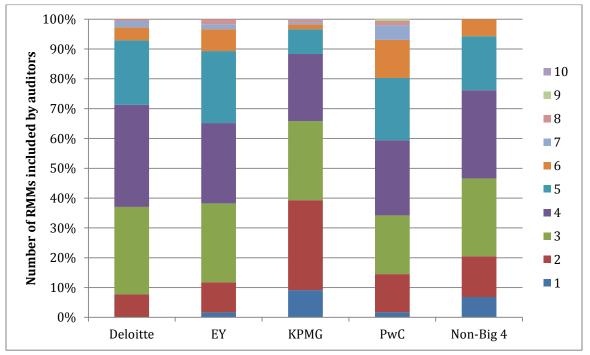


Figure 10 presents the number of RMMs included by each auditor. Inclusion percentage is measured by number of audit reports by the same auditor including the specific number of RMMs (ranging from 1 to 10) scaled by the total number of audit reports by the same auditor.



Figure 11A
Number of audit work categories in response to *impairment*

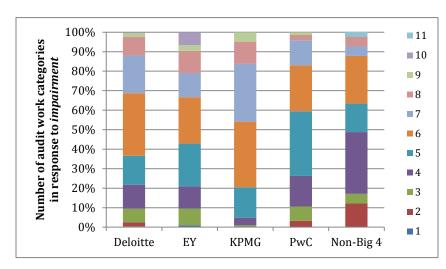


Figure 11C
Number of audit work categories in response to *provisioning*

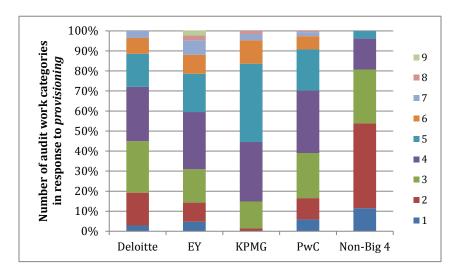
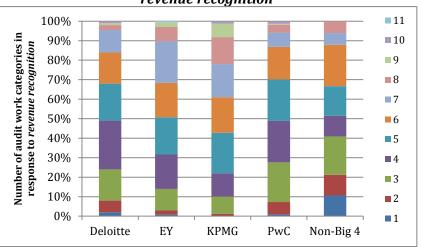


Figure 11B

Number of audit work categories in response to revenue recognition



 $Figure~11D \\ Number~of~audit~work~categories~in~response~to~\textit{taxation}$

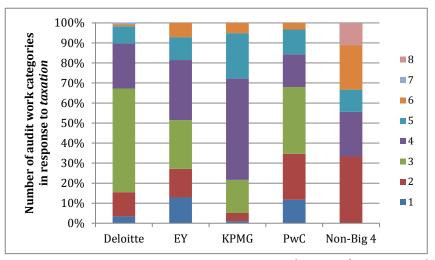




Figure 11E Number of audit work categories in response to *valuation*

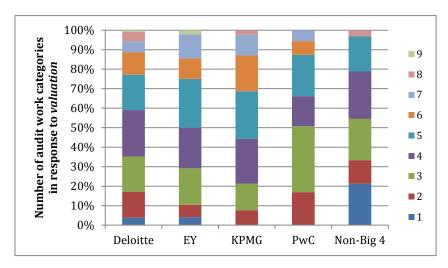


Figure 11F Number of audit work categories in response to *pension*

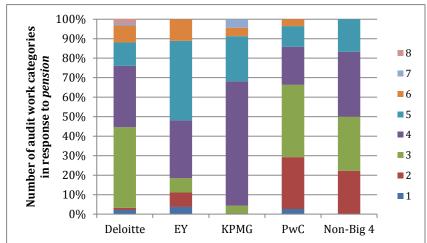
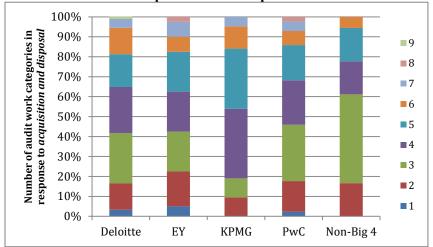


Figure 11G Number of audit work categories in response to acquisition and disposal



Figures 11A to 11G present the number of audit work categories adopted by each auditor. Adoption percentage is measured by number of audit reports by the same auditor adopting the specific number of audit work categories (ranging from 1 to 11) in response to various RMM topics (namely *impairment*, *revenue recognition*, *provisioning*, *taxation*, *valuation*, *pension*, or *acquisition* and *disposal*) scaled by the total number of audit reports with that specific RMM topic by the same auditor.



Tables



Table 1
Number of unique firms during the sample period and resulting sample size

Year	Number of observations
2013	259
2014	445
2015	478
2016	503
Total original firm-year observations	1,685
Less: Missing data of extraordinary item	(364)
Missing data of firm age	(7)
Missing data of abnormal audit fee	(28)
Resulting sample size	1,286

Table 1 presents the number of unique firms during the sample period and the calculation of the resulting sample size.



Table 2
Auditors' market share in each industry

Panel A: Auditors' market share presented as number of clients

Industry	Deloitte	EY	KPMG	PwC	Non-Big 4	Total
Basic Materials	30	20	24	22	14	110
Consumer Goods	17	14	52	61	7	151
Consumer Services	105	41	81	83	22	332
Financials	2	-	-	5	-	7
Health Care	21	10	18	19	1	69
Industrials	110	40	141	106	33	430
Oil & Gas	16	30	4	19	3	72
Technology	3	21	25	14	7	70
Telecommunications	9	-	2	8	1	20
Utilities	11	2	4	8	-	25
Total	324	178	351	345	88	1,286

Panel B: Auditors' market share presented as market share percentage

Industry	Deloitte	EY	KPMG	PwC	Non-Big 4	Total
Basic Materials	27.27%	18.18%	21.82%	20.00%	12.73%	100%
Consumer Goods	11.26%	9.27%	34.44%	40.40%	4.64%	100%
Consumer Services	31.63%	12.35%	24.40%	25.00%	6.63%	100%
Financials	28.57%	-	-	71.43%	-	100%
Health Care	30.43%	14.49%	26.09%	27.54%	1.45%	100%
Industrials	25.58%	9.30%	32.79%	24.65%	7.67%	100%
Oil & Gas	22.22%	41.67%	5.56%	26.39%	4.17%	100%
Technology	4.29%	30.00%	35.71%	20.00%	10.00%	100%
Telecommunications	45.00%	-	10.00%	40.00%	5.00%	100%
Utilities	44.00%	8.00%	16.00%	32.00%	-	100%

Table 2 presents the market share of each auditor in each industry of all firm-year observations. Market share is measured by number of clients. Figure 8 provides a bar chart illustrating the results.



Table 3
ANOVA of RMM textual similarity within same auditors across years (constant sample)

Panel A: Summary of RMM textual similarity raw score

Auditor	Mean (RMM_Sim_score)	Std. Dev.	Freq.
Deloitte	8.477	4.033	6,431
EY	10.955	4.774	1,635
KPMG	9.611	5.311	4,954
PwC	11.812	5.630	5,144
Non-Big 4	6.650	4.582	88
Total	9.938	5.136	18,252

Panel B: Analysis of Variance

Source	SS	df	MS	F	Prob > F
Between groups	34972.268	4	8743.067	357.37	[0.000]
Within groups	446411.954	18247	24.465		
Total	481384.222	18251	26.376		

Bartlett's test for equal variances: chi2(4) = 715.4875 Prob > Chi2 = 0.000

Panel C: Comparison of RMM textual similarity raw score by auditor (Scheffe)

Row Mean - Column Mean	Deloitte	EY	KPMG	PwC
EY	2.478			
	[0.000]			
KPMG	1.134	-1.344		
	[0.000]	[0.000]		
PwC	3.335	0.857	2.201	
	[0.000]	[0.000]	[0.000]	
Non-Big 4	-1.826	-4.305	-2.960	5.162
	[0.019]	[0.000]	[0.000]	[0.000]

Table 3 presents the ANOVA result of RMM textual similarity within same auditors in a constant sample across years. For example, the mean of *RMM_Sim_score* of Deloitte is the average RMM textual similarity of Firm A and Firm B, both audited by Deloitte in the same year. P-values are in parentheses.



Table 4 Effect of auditor's firm-wide template on RMM textual similarity

 $\textit{Sim_score} = \alpha + \beta_1 \textit{Same}(\textit{Auditor}) + \beta_2 \textit{Same}(\textit{AuditOffice}) + \beta_3 \textit{Same}(\textit{AuditPartner}) + \textit{Controls} + \textit{FE} + \varepsilon$

Panel A: Descriptive statistics

Variable	N	Mean	Std. Dev.	Min	Q1	Median	Q3	Max
RMM_Sim_score	217,624	7.421	4.165	1.595	4.460	6.495	9.322	23.268
Same(Auditor)	217,624	0.228	0.420	0	0	0	0	1
Same(AuditOffice)	217,624	0.081	0.273	0	0	0	0	1
Same(AuditPartner)	217,624	0.003	0.051	0	0	0	0	1
Both(Deloitte)	217,624	0.062	0.241	0	0	0	0	1
Both(EY)	217,624	0.019	0.135	0	0	0	0	1
Both(KPMG)	217,624	0.074	0.262	0	0	0	0	1
Both(PwC)	217,624	0.073	0.259	0	0	0	0	1
Both(DeloitteOffice)	217,624	0.031	0.174	0	0	0	0	1
Both(EYOffice)	217,624	0.007	0.082	0	0	0	0	1
Both(KPMGOffice)	217,624	0.020	0.139	0	0	0	0	1
Both(PwCOffice)	217,624	0.023	0.150	0	0	0	0	1
Both(DeloittePartner)	217,624	0.001	0.030	0	0	0	0	1
Both(EYPartner)	217,624	0.000	0.015	0	0	0	0	1
Both(KPMGPartner)	217,624	0.001	0.027	0	0	0	0	1
Both(PwCPartner)	217,624	0.001	0.027	0	0	0	0	1
Same(Ind)	217,624	0.208	0.406	0	0	0	0	1
Diff(Size)	217,624	2.085	1.664	0.033	0.802	1.703	2.957	8.648
Diff(Lev)	217,624	0.262	0.220	0.004	0.100	0.212	0.363	1.208
Diff(ROA)	217,624	0.101	0.129	0.001	0.028	0.063	0.122	0.815
Diff(ExtraOrdinaryItem)	217,624	0.008	0.032	-	-	-	0.000	0.240
Diff(lnAge)	217,624	1.358	1.246	0.014	0.446	0.988	1.863	5.820
Both(Big4)	217,624	0.866	0.340	0	1	1	1	1
Diff(AuditFirmIndExp)	217,624	0.117	0.097	-	0.039	0.095	0.177	0.395
Diff(lnAbAuditFee)	217,624	0.664	0.503	0.011	0.262	0.558	0.957	2.273
Diff(InRMMwordcount)	217,624	0.496	0.385	0.008	0.192	0.410	0.710	1.774
Note_Sim_score	217,624	7.584	4.178	1.300	4.443	6.876	9.910	22.525

Panel A reports the descriptive statistics for testing the effect of auditor's firm-wide template on RMM textual similarity. Sample includes pairwise audit reports in the same year.



Panel B: Auditor-office-partner model

			Depe	ndent variabl	$e = RMM_Sim_s$	_score		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Same(Auditor)	2.871**			2.775**				
	[5.768]			[4.962]				
Same(AuditOffice)		2.453***		0.208				
		[8.592]		[1.168]				
Same(AuditPartner)			4.057***	1.963***				
			[16.311]	[18.414]				
Both(Deloitte)					2.179***			2.119***
					[11.502]			[9.279]
Both(EY)					4.265***			4.659***
					[8.722]			[8.877]
Both(KPMG)					2.261**			1.932**
					[5.749]			[5.047]
Both(PwC)					3.750**			3.692*
					[3.254]			[2.950]
Both(DeloitteOffice)						1.664***		0.0479
						[11.081]		[0.323]
Both(EYOffice)						3.122***		-1.170*
- 1 ([6.480]		[-2.911]
Both(KPMGOffice)						2.612***		1.176***
D .1 (D .000)						[7.828]		[16.084]
Both(PwCOffice)						3.281**		0.150
De de (De le 14 e Deserve)						[3.887]	2 020444	[0.479]
Both(DeloittePartner)							3.928***	2.591***
Dath (FVD mater and)							[13.013] 5.487** *	[5.882] 2.779 **
Both(EYPartner)								
Doth (VDMCDoute ov)							[20.770] 3.610***	[4.520]
Both(KPMGPartner)								1.567**
Poth(Dw(Dartner)							[11.120] 4.050**	[3.382] 1.041 **
Both(PwCPartner)							[5.452]	[4.156]
Sama(Ind)	0.967***	0.917***	0.901***	0.963***	0.962***	0.876***	[5.452] 0.851***	0.955***
Same(Ind)	[23.894]	[24.135]	[24.489]	[24.110]	[18.451]	[20.273]	[19.306]	[18.603]
	[43.074]	[24.133]	[24.407]	[24.110]	[10.431]	[20.2/3]	(continued	



Panel B: Auditor-office-partner model (continued)

		Dependent variable = RMM_Sim_score						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Diff(Size)	-0.0951**	-0.0696*	-0.0587*	-0.0942**	-0.108**	-0.0866**	-0.0754**	-0.108**
	[-4.122]	[-2.944]	[-2.499]	[-4.090]	[-4.523]	[-3.852]	[-3.470]	[-4.496]
Diff(Lev)	-0.513*	-0.452	-0.463	-0.506*	-0.543*	-0.528*	-0.516*	-0.544*
	[-2.429]	[-2.223]	[-2.200]	[-2.392]	[-2.715]	[-2.521]	[-2.403]	[-2.710]
Diff(ROA)	-1.815***	-1.694***	-1.753***	-1.807***	-1.880***	-1.717***	-1.792***	-1.858***
	[-9.198]	[-10.215]	[-10.105]	[-9.226]	[-8.739]	[-8.951]	[-9.345]	[-8.664]
Diff(ExtraOrdinaryItem)	-3.672	-4.083	-3.763	-3.696	-3.168	-3.691	-3.486	-3.179
	[-1.637]	[-1.601]	[-1.537]	[-1.638]	[-1.384]	[-1.475]	[-1.416]	[-1.390]
Diff(lnAge)	-0.0648	-0.0683	-0.0761	-0.0644	-0.0644	-0.0599	-0.0662	-0.0634
	[-1.509]	[-1.814]	[-1.862]	[-1.522]	[-1.406]	[-1.580]	[-1.636]	[-1.394]
Both(Big4)	0.409	0.693**	0.786**	0.414				
	[1.721]	[3.522]	[4.278]	[1.731]				
Diff(AuditFirmIndExp)	0.0810	-1.301	-2.012	0.0973	-0.906	-2.564**	-3.395**	-0.878
	[0.098]	[-1.398]	[-2.117]	[0.118]	[-1.690]	[-4.300]	[-5.044]	[-1.654]
Diff(lnAbAuditFee)	-0.379**	-0.361**	-0.380**	-0.376**	-0.392**	-0.347**	-0.355**	-0.382**
	[-4.029]	[-4.518]	[-4.636]	[-4.024]	[-4.173]	[-4.135]	[-4.092]	[-4.107]
Diff(InRMMwordcount)	-0.713***	-0.954***	-1.106***	-0.709***	-0.725***	-0.990***	-1.145***	-0.729***
	[-7.365]	[-12.944]	[-14.183]	[-7.396]	[-6.830]	[-10.848]	[-11.958]	[-7.019]
Note_Sim_score	0.288***	0.307***	0.304***	0.288***	0.288***	0.307***	0.306***	0.289***
	[31.257]	[46.910]	[46.186]	[30.053]	[27.397]	[43.391]	[45.529]	[26.826]
Constant	5.240***	5.492***	5.805***	5.222***	5.816***	6.365***	6.745***	5.804***
	[19.020]	[18.680]	[18.958]	[18.690]	[72.905]	[102.043]	[70.571]	[76.109]
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	217,624	217,624	217,624	217,624	217,624	217,624	217,624	217,624
R-squared	0.248	0.196	0.173	0.248	0.255	0.196	0.170	0.257

^{*,**,***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise.



Year fixed effects are included in the model but omitted for brevity. Standard errors are clustered at year level. See Appendix B for all variable descriptions.

Panel B presents the regression results of the effect of auditor's firm-wide template on RMM textual similarity. While Columns 1 to 4 report results of the regression model as stated above, Columns 5 to 8 report results of the specific Big 4 auditors' template effect from the following regression model: $Sim_score = \alpha + \beta_1 Both(Deloitte) + \beta_2 Both(EY) + \beta_3 Both(KPMG) + \beta_4 Both(PwC) + \beta_5 Both(DeloitteOffice) + \beta_6 Both(EYOffice) + \beta_7 Both(KPMGOffice) + \beta_8 Both(PwCOffice) + \beta_9 Both(DeloittePartner) + \beta_{10} Both(EYPartner) + \beta_{11} Both(KPMGPartner) + \beta_{12} Both(PwCPartner) + Controls + FE + \varepsilon.$

Panel C: Time-series model

		_	e = RMM_Sim_sco	
	(1)	(2)	(3)	(4)
Same(Auditor)13	5.583***	6.024***		
	[30.844]	[32.178]		
Same(Auditor)14	3.046***	2.991***		
	[18.584]	[17.671]		
Same(Auditor)15	2.604***	2.423***		
	[17.032]	[15.660]		
Same(Auditor)16	2.283***	2.136***		
	[14.736]	[13.701]		
Same(AuditOffice)13		-1.215***		
		[-75.332]		
Same(AuditOffice)14		0.0784**		
		[4.137]		
Same(AuditOffice)15		0.461***		
		[51.042]		
Same(AuditOffice)16		0.360***		
·		[25.587]		
Same(AuditPartner)13		1.294***		
		[29.897]		
Same(AuditPartner)14		2.179***		
ame(mailer ar energy 1		[60.430]		
Same(AuditPartner)15		2.025***		
unc(Auditi ui thei)15		[78.270]		
Samo(Audit Dartner) 16		1.911***		
Same(AuditPartner)16				
Path(Dalaitta)12		[115.376]	2 000***	
Both(Deloitte)13			2.000***	
2-4-(D-1-44-)44			[13.491]	
Both(Deloitte)14			2.432***	
			[16.755]	
Both(Deloitte)15			2.428***	
			[15.146]	
Both(Deloitte)16			1.760***	
			[11.333]	
Both(EY)13			4.187***	
			[28.001]	
Both(EY)14			2.977***	
			[20.604]	
Both(EY)15			4.457***	
· -			[36.851]	
Both(EY)16			5.222***	
			[37.591]	
Both(KPMG)13			4.808***	
()			[26.925]	
Both(KPMG)14			1.921***	
out mujit			[10.551]	
Poth(VDMC)15			2.117***	
Both(KPMG)15			[13.605]	



Panel C: Time-series model (continued)

,	Dependent variable = RMM_Sim_score				
	(1)	(2)	(3)	(4)	
Both(KPMG)16			2.039***		
			[12.603]		
Both(PwC)13			11.75***		
Both(PwC)14			[72.156] 4.877 ***		
Boui(FWC)14			[31.449]		
Both(PwC)15			2.684***		
()			[18.865]		
Both(PwC)16			2.314***		
			[16.385]		
Same(IndSame(Auditor))13				6.029***	
C (I . 1C (A . 1')) 4.4				[34.358]	
Same(IndSame(Auditor))14				3.661 *** [20.762]	
Same(IndSame(Auditor))15				3.140***	
ounc(musume(muntor))15				[18.674]	
Same(IndSame(Auditor))16				2.716***	
				[16.137]	
Same(IndDiff(Auditor))13				-1.037***	
a contract to				[-15.100]	
Same(IndDiff(Auditor))14				0.186	
Same(IndDiff(Auditor))15				[2.065] 0.621 ***	
Sume(muDijj(Auuitoi jj13				[5.885]	
Same(IndDiff(Auditor))16				0.179	
. ""				[1.888]	
Controls	Yes	Yes	Yes	Yes	
Observations	217,624	217,624	217,624	217,624	
R-squared	0.257	0.258	0.283	0.194	

F-test on difference between coefficients

	F-	test
Same(Auditor)13 > Same(Auditor)14	2227.75***	
Same(Auditor)13 > Same(Auditor)15	2618.74***	All: 4490.35***
Same(Auditor)13 > Same(Auditor)16	3544.25***	
Same(AuditOffice)13 < Same(AuditOffice)14	30429.80***	
Same(AuditOffice)13 < Same(AuditOffice)15	40253.72***	All: 47471.83***
Same(AuditOffice)13 < Same(AuditOffice)16	23235.25***	
Same(AuditPartner)13 < Same(AuditPartner)14	7803.50***	
Same(AuditPartner)13 < Same(AuditPartner)15	1216.88***	All: 8663.26***
Same(AuditPartner)13 < Same(AuditPartner)16	290.67***	

^{*,***,***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Standard errors are clustered at year level. See Appendix B for all variable descriptions.

Panel C presents the time-series regression results of the effect of auditor's firm-wide template on RMM textual similarity. Time-series variables of interest are constructed as: Variables of interest x Year indicator. Columns 1 and 2 report results of the regression model as stated above, Column 3 reports result of the specific Big 4 auditors' template effect from the following regression model: $Sim_score = \alpha + \beta_1 Both(Deloitte) + \beta_2 Both(EY) + \beta_3 Both(KPMG) + \beta_4 Both(PwC) + Controls + FE + \varepsilon$, and Column 4 reports result of the RMM textual similarity of the same industry firms audited by the same auditor as well as by different auditors using the regression model as follows: $Sim_score = \alpha + \beta_1 Same(IndSame(Auditor)) + \beta_2 Same(IndDiff(Auditor)) + Controls + FE + \varepsilon$.



Table 5 Effect of auditor change on RMM textual similarity

 $Sim_score = \alpha + \beta_1 Change(Auditor)$ or Change(AuditOffice) or $Change(AuditPartner) + Controls + FE + \varepsilon$

Panel A: Descriptive statistics

Variable	N	Mean	Std. Dev.	Min	Q1	Median	Q3	Max
RMM_Sim_score	889	64.594	20.396	10.155	50.541	67.757	81.039	96.987
Change(Auditor)	889	0.076	0.266	0	0	0	0	1
Change(AuditOffice)	889	0.019	0.137	0	0	0	0	1
Change(AuditPartner)	889	0.074	0.262	0	0	0	0	1
Same(FirmChange(Off))	889	0.031	0.175	0	0	0	0	1
Same(FirmChange(Ptn))	889	0.183	0.387	0	0	0	0	1
Diff(Size)	889	0.123	0.163	0.001	0.036	0.073	0.149	1.154
Diff(Lev)	889	0.052	0.068	0.000	0.013	0.029	0.062	0.460
Diff(ROA)	889	0.048	0.078	0.000	0.009	0.022	0.052	0.522
Diff(ExtraOrdinaryItem)	889	0.008	0.033	-	-	-	-	0.245
Diff(lnAge)	889	0.157	0.359	0.014	0.027	0.051	0.106	2.437
Diff(AuditFirmIndExp)	889	0.037	0.044	0.000	0.009	0.026	0.041	0.273
Diff(lnAbAuditFee)	889	0.153	0.160	0.002	0.044	0.103	0.199	0.911
Diff(lnRMMwordcount)	889	0.282	0.268	0.003	0.082	0.196	0.394	1.448
Note_Sim_score	889	84.582	14.800	23.435	80.265	88.935	94.774	99.184

Panel A reports the descriptive statistics for testing the effect of auditor change on RMM textual similarity. Sample includes pairwise audit reports of the same client firm in consecutive years (i.e. year t and year t-1).



Panel B: Different auditor-office-partner model

		Dependent v	ariable = RMM	I_Sim_score	
	(1)	(2)	(3)	(4)	(5)
Change(Auditor)	-27.85***				
	[-8.186]				
Change(AuditOffice)		-26.78***			
		[-5.068]			
Change(AuditPartner)			-29.70***		
			[-9.632]		
Same(FirmChange(Off))				4.175	
				[0.892]	
Same(FirmChange(Ptn))					-0.965
					[-0.483]
Diff(Size)	-10.64	-13.77**	-12.09**	-11.94*	-11.68*
	[-1.542]	[-2.035]	[-1.981]	[-1.750]	[-1.741]
Diff(Lev)	-0.789	2.492	-0.612	5.596	5.543
	[-0.042]	[0.128]	[-0.033]	[0.289]	[0.285]
Diff(ROA)	-9.924	-5.760	-9.176	-9.770	-8.520
	[-0.496]	[-0.274]	[-0.462]	[-0.462]	[-0.402]
Diff(ExtraOrdinaryItem)	17.19	24.57	17.13	26.61	27.08
	[0.453]	[0.643]	[0.451]	[0.678]	[0.690]
Diff(lnAge)	-8.657*	-9.028*	-8.501*	-9.395*	-9.224*
	[-1.743]	[-1.773]	[-1.722]	[-1.700]	[-1.677]
Diff(AuditFirmIndExp)	-10.78	-59.53***	-6.043	-87.47***	-88.34***
	[-0.542]	[-2.662]	[-0.311]	[-3.615]	[-3.632]
Diff(lnAbAuditFee)	-9.728	-11.62	-8.704	-14.39*	-14.15*
	[-1.294]	[-1.441]	[-1.176]	[-1.767]	[-1.740]
Diff(lnRMMwordcount)	-30.69***	-33.97***	-29.88***	-35.22***	-35.31***
	[-7.680]	[-7.845]	[-7.708]	[-7.703]	[-7.733]
Note_Sim_score	0.117*	0.137*	0.118*	0.154**	0.152**
	[1.712]	[1.846]	[1.738]	[2.123]	[2.086]
Constant	78.65***	72.36***	78.29***	73.67***	73.78***
	[11.737]	[10.376]	[11.762]	[10.551]	[10.520]
Year FE, Firm FE	Yes	Yes	Yes	Yes	Yes
Observations	889	889	889	889	889
R-squared	0.734	0.690	0.739	0.673	0.672

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Year and firm fixed effects are included in the model but omitted for brevity. Standard errors are clustered at firm level. See Appendix B for all variable descriptions.



Panel B presents the regression results of the effect of auditor change on RMM textual similarity. While Columns 1 to 3 report results of the regression model as stated above, Columns 4 and 5 report results of the effect of audit office/partner rotation in the same audit firm using the following regression model: $Sim_score = \alpha + \beta_1 Same(FirmChange(Off))$ or $Same(FirmChange(Ptn)) + Controls + FE + \varepsilon$.

Panel C: Times-series model

		Dependent	variable = RMN	/I_Sim_score	
	(1)	(2)	(3)	(4)	(5)
Change(Auditor)14	-34.05***				
	[-3.150]				
Change(Auditor)15	-24.41***				
	[-6.150]				
Change(Auditor)16	-25.06***				
	[-5.837]				
Change(AuditOffice)14		-28.58			
		[-1.614]			
Change(AuditOffice)15		-24.44***			
		[-5.811]			
Change(AuditOffice)16		-25.57***			
		[-3.000]			
Change(AuditPartner)14			-40.13***		
			[-4.445]		
Change(AuditPartner)15			-26.06***		
			[-7.018]		
Change(AuditPartner)16			-25.59***		
			[-6.068]		
Same(FirmChange(Off))14				-5.465	
				[-0.491]	
Same(FirmChange(Off))15				6.912	
				[1.188]	
Same(FirmChange(Off))16				6.184	
				[1.033]	
Same(FirmChange(Ptn))14					-2.077
					[-0.444]
Same(FirmChange(Ptn))15					-1.286
					[-0.368]
Same(FirmChange(Ptn))16					-0.215
					[-0.072]
Controls, Firm FE	Yes	Yes	Yes	Yes	Yes
Observations	889	889	889	889	889
R-squared	0.730	0.731	0.735	0.673	0.672

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Firm fixed effects are included in the model but omitted for brevity. Standard errors are clustered at firm level. See Appendix B for all variable descriptions.



Panel C presents the time-series regression results of the effect of auditor change on RMM textual similarity. Time-series variables of interest are constructed as: Variables of interest x Year indicator. While Columns 1 to 3 report results of the regression model as stated above, Columns 4 and 5 report results of the effect of audit office/ partner rotation in the same audit firm with the regression model as follows: $Sim_score = \alpha + \beta_1 Same(FirmChange(Off))$ or $Same(FirmChange(Ptn)) + Controls + FE + \varepsilon$.

Table 6 Effect of prior expert's wordings on RMM textual similarity

 $Sim_score = \alpha + \beta_1 PriorIndExp + Controls + FE + \varepsilon$

Panel A: Descriptive statistics

Variable	N	Mean	Std. Dev.	Min	Q1	Median	Q3	Max
RMM_Sim_score	114,172	8.798	5.172	1.733	5.125	7.622	11.154	30.533
PriorIndExp	114,172	0.201	0.401	0	0	0	0	1
Same(Year)	114,172	0.396	0.489	0	0	0	1	1
Diff(Size)	114,172	1.885	1.542	0.030	0.726	1.536	2.650	8.828
Diff(Lev)	114,172	0.258	0.249	0.004	0.095	0.199	0.343	1.524
Diff(ROA)	114,172	0.108	0.225	0.001	0.025	0.057	0.110	1.790
Diff(ExtraOrdinaryItem)	114,172	0.007	0.026	-	-	-	0.001	0.191
Diff(lnAge)	114,172	1.326	1.254	0.013	0.429	0.940	1.793	5.840
Both(Big4)	114,172	0.859	0.348	0	1	1	1	1
Diff(AuditFirmIndExp)	114,172	0.100	0.092	-	0.027	0.073	0.154	0.344
Diff(lnAbAuditFee)	114,172	0.624	0.479	0.011	0.245	0.520	0.898	2.249
Diff(InRMMwordcount)	114,172	0.483	0.377	0.008	0.187	0.398	0.689	1.769
Note_Sim_score	114,172	9.466	5.960	1.526	5.492	8.493	11.936	38.693

Panel A reports the descriptive statistics for testing the effect of prior expert's wordings on RMM textual similarity. Sample includes pairwise audit reports of the same industry firms in both same year (i.e. year t and year t) as well as in prior and current years (i.e. year t and year t-1).



Panel B: Regression model

(1) 0.453*** [3.613] 0.0984 [1.287]
[3.613] 0.0984 [1.287]
0.0984 [1.287]
[1.287]
0.477+++
-0.177***
[-5.115]
-0.968***
[-4.663]
-0.536**
[-2.544]
-4.079*
[-1.684]
-0.109***
[-2.920]
-0.800***
[-3.534]
-10.41***
[-14.854]
-0.709*** [.7.402]
[-7.493] -0.937***
[-7.171] 0.275***
[19.112]
6.257***
[11.279]
[11.27]
Yes
114,172
0.238

Panel C: Time-series model

	Dependent variable = RMM_Sim_score
	(1)
PriorIndExp14	0.986***
	[4.455]
PriorIndExp15	0.251*
	[1.836]
PriorIndExp16	0.254*
	[1.832]
Controls, Industry FE	Yes
Observations	114,172
R-squared	0.261

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Year and industry fixed effects are included in the model but omitted for brevity. Standard errors are clustered at firm level. See Appendix B for all variable descriptions.

Panel C presents the time-series regression result of the effect of prior expert's wordings on RMM textual similarity. Time-series variables of interest are constructed as: Variables of interest x Year indicator. Column 1 reports result of the regression model as stated above.



Panel B presents the regression result of the effect of prior expert's wordings on RMM textual similarity. Column 1 reports result of the regression model as stated above.

Table 7
Summary of prior year industry audit expert

Industry	2014	2015	2016
Basic Materials	Deloitte	Deloitte	Deloitte
Consumer Goods	PwC	PwC	KPMG
Consumer Services	Deloitte	Deloitte	Deloitte
Financials	PwC	PwC	PwC
Health Care	Deloitte	Deloitte	KPMG
Industrials	KPMG	KPMG	KPMG
Oil & Gas	EY	EY	EY
Technology	EY	EY	KPMG
Telecommunications	Deloitte	Deloitte	PwC
Utilities	Deloitte	PwC	Deloitte

Table 7 presents the prior expert in each industry of all firm-year observations. Industry audit expertise is measured by client firm's assets audited by an auditor divided by total client firm's assets in the industry.



Table 8 Effect of prior expert's wordings on RMM textual similarity under various conditions

 $Sim_score = \alpha + \beta_1 PriorIndExp + \beta_2 Condition + \beta_3 PriorIndExp * Condition + Controls + FE + \varepsilon$

Panel A: Non-Big 4 auditors' tendency to follow prior expert

	Dependent	variable = RMM	
	(1)	(2)	(3)
PriorIndExp	0.406***	0.423***	0.459***
	[3.063]	[3.320]	[3.592]
NonBig4	0.359		-
	[0.987]		
BasicMat	-3.601***		
	[-3.349]		
PriorIndExp x NonBig4	0.0596		
	[0.201]		
PriorIndExp x BasicMat	0.717***		
•	[2.641]		
NonBig4 x BasicMat	-1.070		
	[-1.529]		
PriorIndExp x NonBig4 x BasicMat	1.122**		
-	[2.068]		
GT		0.961	
		[1.630]	
PriorIndExp x GT		0.412**	
		[2.085]	
BDO		. ,	-0.348
			[-0.532]
PriorIndExp x BDO			0.0539
·			[0.167]
Controls, Year FE, Industry FE	Yes	Yes	Yes
Observations	114,172	114,172	114,172
R-squared	0.238	0.239	0.238

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Year and industry fixed effects are included in the model but omitted for brevity. Standard errors are clustered at firm level. See Appendix B for all variable descriptions.



Panel A presents the regression results of the incremental effect of prior expert's wordings on RMM textual similarity when auditors are Non-Big 4 auditors. Columns 1 to 3 report results of the regression model as stated above.

Panel B: Auditors' tendency to follow specific prior expert

-	Dependent variable = RMM_Sim_score
	(1)
PriorIE_Deloitte	0.644***
	[7.019]
PriorIE_EY	-0.376
	[-1.042]
PriorIE_KPMG	0.319*
	[1.694]
PriorIE_PwC	1.059**
	[2.193]
Controls, Year FE, Industry FE	Yes
Observations	114,172
R-squared	0.238

F-test on difference between coefficients

	F-t	est
PriorIE_EY < PriorIE_Deloitte	7.80***	
PriorIE_EY < PriorIE_KPMG	3.12*	All: 3.65**
PriorIE_EY < PriorIE_PwC	5.75**	

Panel C: Auditors' tendency to follow prior expert given specific client firm's conditions

		Dependent variable	e = RMM_Sim_	score
	SmallSize	Both(NewEquity)	Both(MA)	Both(NewDebt)
	(1)	(2)	(3)	(4)
PriorIndExp	0.604***	0.452***	0.273**	0.419***
	[4.100]	[3.599]	[2.272]	[3.319]
ClientFirm				
SmallSize/NewEquity/MA/NewDebt	-0.715***	-0.377*	-0.0587	0.0115
	[-3.769]	[-1.730]	[-0.417]	[0.078]
PriorIndExp x Condition	-0.386*	-	1.288***	0.428*
-	[-1.816]		[5.045]	[1.822]
Controls, Year FE, Industry FE	Yes	Yes	Yes	Yes
Observations	114,172	114,172	114,172	114,172
R-squared	0.243	0.239	0.240	0.238

^{*, ***, ****} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Year and industry fixed effects are included in the model but omitted for brevity. Standard errors are clustered at firm level. See Appendix B for all variable descriptions.



Panel B presents the regression result of the incremental effect of prior expert's wordings on RMM textual similarity when prior expert is a specific auditor. Column 1 reports result of the regression model as follows: $Sim_score = \alpha + \beta_1 PriorIndExp * Condition + Controls + FE + \varepsilon$.

Panel C presents the regression results of the incremental effect of prior expert's wordings on RMM textual similarity when the client firm has specific condition. Columns 1 to 4 report results of the regression model as stated on top.

Table 9
Description and distribution of RMM topic categories

RMM topic	Total sample	Inclusion	Inclusion %	RMM details
Impairment	1,286	811	63%	Intangible assets/ goodwill impairment
Revenue recognition	1,286	782	61%	Revenue recognition
Provisioning	1,286	487	38%	Inventory/ receivable/ claim/ restructuring provisioning
Taxation	1,286	445	35%	Current/ deferred taxation
Valuation	1,286	388	30%	Investment/ properties/ portfolio/ foreign currencies valuation
Pension	1,286	319	25%	Defined benefit scheme; pension scheme
Acquisition and disposal	1,286	297	23%	Acquisition; disposal
Internal control	1,286	195	15%	Management override; IT control
Exceptional item	1,286	131	10%	Exceptional/ special/ one-off item
Costs capitalization	1,286	130	10%	Capitalization of costs
Legal and regulatory	1,286	108	8%	Legal/regulatory compliance; litigation dispute; ongoing investigation
Going concern	1,286	105	8%	Going concern; financial covenant concern
Accounting policies	1,286	76	6%	Accounting standards/ accounting policies change
Financial instrument	1,286	59	5%	Hedging activities; financial derivatives
Completeness of accruals	1,286	52	4%	Completeness of accruals
Management incentive	1,286	28	2%	Share based scheme
Reserve	1,286	28	2%	Oil & gas/ metal reserve
Related parties	1,286	24	2%	Related parties transaction
IPO or SEO	1,286	22	2%	IPO; SEO
Market and political concern	1,286	15	1%	Market/ political effect
Insurance	1,286	8	1%	Insurance/ reinsurance related
Restatement	1,286	7	1%	Restatement
Loss	1,286	5	0%	Significant loss
First year audit	1,286	2	0%	First year audit
Government grants	1,286	1	0%	Government grants

Table 9 presents the distribution of RMM topic categories in all firm-year observations. Inclusion percentage is measured by number of audit reports including the specific RMM topic scaled by the total number of audit reports.



Table 10 Distribution of RMM topic categories by auditors

	Inclusion %								
RMM topic	Deloitte	EY	KPMG	PwC					
Impairment	75%	59%	58%	63%					
Revenue recognition	62%	76%	45%	64%					
Provisioning	43%	24%	36%	44%					
Taxation	36%	39%	28%	44%					
Valuation	32%	27%	37%	21%					
Pension	28%	15%	20%	33%					
Acquisition and disposal	28%	22%	18%	25%					
Internal control	4%	31%	2%	28%					
Exceptional item	8%	14%	7%	15%					
Costs capitalization	11%	8%	8%	12%					
Legal and regulatory	4%	10%	7%	11%					
Going concern	6%	12%	4%	9%					
Accounting policies	7%	4%	5%	8%					
Financial instrument	5%	5%	3%	6%					
Completeness of accruals	5%	6%	2%	6%					
Management incentive	2%	2%	1%	4%					
Reserve	1%	11%	0%	1%					
Related parties	0%	8%	1%	0%					
IPO or SEO	2%	3%	1%	2%					
Market and political concern	0%	2%	1%	1%					
Insurance	1%	0%	0%	1%					
Restatement	1%	1%	0%	1%					
Loss	1%	1%	0%	0%					
First year audit	0%	1%	0%	0%					
Government grants	0%	1%	0%	0%					

Table 10 presents the distribution of RMM topic categories by auditors. Inclusion percentage is measured by number of audit reports by the same auditor including the specific RMM topic scaled by the total number of audit reports by the same auditor.



Table 11 Validation of RMM topics categorization

$$\begin{split} \Pr[Include] &= \alpha + \sum_{1}^{n} \beta_{n}(Size*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(Lev*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(ROA*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(ExtraOrdinaryItem*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(InAge*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(Loss*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(GC*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(MA_num*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(NewEquity_num*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(IPO*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(Busy*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(NewAuditor*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(AuditFirmIndExp*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(InAbAuditFee*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(Deloitte*RMM_Topic_{n}) + \sum_{1}^{n} \beta_{n}(EY*RMM_Topic_{n}) +$$

		Dependent variable = Include													
		Impair	Rev	Prov	Tax	Val	Pension	AcqDis	IC	ExItem	CapCost	Legal	GC	Policies	FI
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Size		0.00442	-0.338***	-0.0987	0.182***	-0.0446	-0.202***	-0.101	0.0497	-0.261***	-0.259***	0.140*	-0.302***	-0.0911	0.172*
		[0.068]	[-5.394]	[-1.581]	[2.704]	[-0.692]	[-2.998]	[-1.480]	[0.692]	[-3.358]	[-3.263]	[1.733]	[-3.018]	[-1.037]	[1.745]
Lev		0.978*	2.467***	0.625	0.314	-0.775	4.100***	0.280	1.498**	2.451***	0.482	1.157*	2.877***	2.411***	1.647**
		[1.930]	[4.869]	[1.239]	[0.594]	[-1.484]	[7.362]	[0.497]	[2.571]	[3.912]	[0.775]	[1.721]	[3.960]	[3.248]	[2.052]
ROA		-8.168***	-3.764**	-1.452	-2.389	-4.278**	-0.813	-3.136*	-1.609	-6.495***	0.740	3.585	-9.947***	-7.878***	-2.308
		[-4.790]	[-2.331]	[-0.873]	[-1.383]	[-2.497]	[-0.447]	[-1.702]	[-0.822]	[-3.038]	[0.366]	[1.614]	[-4.185]	[-2.952]	[-0.775]
ExtraOrdinaryItem		0.533*	0.193	0.175	0.605**	-0.144	-0.327	0.877***	0.170	0.257	-0.438	0.260	-0.267	-0.136	-0.985*
		[1.783]	[0.674]	[0.622]	[2.094]	[-0.490]	[-1.056]	[3.006]	[0.525]	[0.765]	[-1.116]	[0.723]	[-0.590]	[-0.334]	[-1.677]
InAge		0.356***	0.191*	0.424***	0.231**	0.492***	0.852***	0.0745	0.411***	0.515***	0.0352	0.368***	0.470***	0.497***	-0.0337
		[3.528]	[1.949]	[4.279]	[2.269]	[4.758]	[7.301]	[0.701]	[3.473]	[3.860]	[0.288]	[2.610]	[2.902]	[3.128]	[-0.218]
Loss	Base Outcome	-0.366	-0.964***	-0.817**	-0.443	-0.281	-1.391***	-0.558	-0.360	-0.393	-1.268**	0.119	1.100**	-0.526	-0.821
	utco	[-0.995]	[-2.784]	[-2.344]	[-1.222]	[-0.795]	[-3.530]	[-1.462]	[-0.889]	[-0.923]	[-2.529]	[0.259]	[2.326]	[-1.053]	[-1.415]
GC	se 0	-1.954**	-1.892**	-0.842	-0.173	0.214	-1.573	-0.384	-0.636	-1.025	-0.497	0.515	3.925***	-14.79	-14.08
	Ba	[-2.339]	[-2.359]	[-0.976]	[-0.211]	[0.271]	[-1.528]	[-0.438]	[-0.615]	[-1.063]	[-0.399]	[0.488]	[3.593]	[-0.025]	[-0.012]
MA_num		0.424***	0.273**	0.107	0.0898	-0.0293	0.228*	0.899***	0.137	0.112	-0.220	0.0944	-0.407	0.155	-0.679**
		[3.337]	[2.268]	[0.889]	[0.738]	[-0.229]	[1.815]	[7.155]	[0.980]	[0.754]	[-1.276]	[0.630]	[-1.398]	[0.977]	[-2.140]
NewEquity_num		0.176	0.498**	0.275	0.147	0.422**	0.302	0.534**	0.397*	0.602**	0.305	-0.157	0.989***	0.229	0.327
		[0.825]	[2.336]	[1.287]	[0.664]	[1.978]	[1.286]	[2.445]	[1.649]	[2.536]	[1.160]	[-0.439]	[4.023]	[0.762]	[1.034]
IPO		-0.564	-0.197	-1.126	-1.011	-0.811	0.742	-0.931	-0.00459	1.151	-1.563	0.669	-1.302	0.463	-15.04
		[-0.752]	[-0.261]	[-1.212]	[-1.296]	[-0.867]	[0.610]	[-1.140]	[-0.005]	[1.258]	[-1.303]	[0.648]	[-0.972]	[0.361]	[-0.015]
Busy		-0.109	-0.226	-0.758***	0.346	-0.593***	-0.339	-0.327	-0.316	-0.523*	-0.0948	0.0199	0.349	-0.0937	-0.829**
		[-0.491]	[-1.036]	[-3.494]	[1.526]	[-2.664]	[-1.464]	[-1.378]	[-1.249]	[-1.904]	[-0.354]	[0.069]	[1.024]	[-0.297]	[-2.348]
NewAuditor		0.555	0.897*	0.391	0.817*	0.602	0.562	0.495	0.163	-0.00377	0.582	0.355	-0.738	0.710	-0.133
		[1.150]	[1.875]	[0.830]	[1.696]	[1.258]	[1.147]	[0.986]	[0.305]	[-0.006]	[1.033]	[0.604]	[-0.842] (contir	[1.164] nued on ne	[-0.158] xt page)



Table 11 (continued)

							Depen	dent variab	le = Includ	e					_
		Impair	Rev	Prov	Tax	Val	Pension	AcqDis	IC	ExItem	CapCost	Legal	GC	Policies	FI
-	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
AuditFirmIndExp		0.134	0.755	0.897	0.993	-2.864**	-3.116**	0.102	-0.547	1.635	2.110	1.525	-3.932**	-1.072	-3.071
		[0.119]	[0.675]	[0.809]	[0.872]	[-2.481]	[-2.427]	[0.084]	[-0.444]	[1.209]	[1.493]	[1.077]	[-2.187]	[-0.615]	[-1.527]
lnAbAuditFee		0.700***	0.279	0.358**	1.093***	-0.149	0.214	0.494**	0.157	0.759***	0.120	0.610**	-0.610**	0.663**	0.0450
		[3.920]	[1.592]	[2.035]	[5.904]	[-0.832]	[1.124]	[2.514]	[0.787]	[3.281]	[0.537]	[2.528]	[-2.244]	[2.460]	[0.167]
Deloitte		1.180**	-0.461	0.826	1.174*	1.042*	1.558***	0.401	-2.173***	1.000	-0.00485	-1.835***	-0.169	1.167	0.850
		[2.183]	[-0.835]	[1.545]	[1.937]	[1.933]	[2.651]	[0.686]	[-3.488]	[1.212]	[-0.008]	[-2.673]	[-0.218]	[1.337]	[0.923]
EY	ome	-0.725	-0.901*	-0.978*	0.0821	-0.288	-0.817	-0.960*	-0.852	0.519	-1.393**	-2.087***	-0.170	-0.732	-0.607
	outcome	[-1.441]	[-1.710]	[-1.914]	[0.142]	[-0.569]	[-1.461]	[-1.721]	[-1.632]	[0.651]	[-2.191]	[-3.273]	[-0.238]	[-0.833]	[-0.705]
KPMG	se o	1.241**	-0.571	1.085*	1.506**	1.937***	1.548**	0.553	-2.059***	1.282	0.0960	-0.653	0.470	1.465	0.897
	Base	[2.198]	[-0.986]	[1.927]	[2.379]	[3.425]	[2.492]	[0.900]	[-3.025]	[1.505]	[0.142]	[-0.952]	[0.576]	[1.607]	[0.939]
PwC		0.254	-0.685	0.394	1.093*	0.158	1.211**	0.0305	-0.254	1.167	-0.358	-1.462**	0.493	0.744	0.585
		[0.476]	[-1.250]	[0.742]	[1.818]	[0.294]	[2.069]	[0.052]	[-0.456]	[1.439]	[-0.556]	[-2.211]	[0.665]	[0.853]	[0.643]
Constant		1.112	5.018***	0.590	-1.091	0.655	-4.876***	2.710**	-0.864	-2.745*	3.673***	-2.299	-1.618	-3.471**	0.687
		[1.067]	[4.920]	[0.575]	[-1.005]	[0.618]	[-3.981]	[2.474]	[-0.717]	[-1.896]	[2.883]	[-1.590]	[-0.977]	[-2.073]	[0.416]
Observations		31,200	31,200	31,200	31,200	31,200	31,200	31,200	31,200	31,200	31,200	31,200	31,200	31,200	31,200

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise.

See Appendix B for all variable descriptions.

Table 11 presents the conditional logistic regression results of the effect of client firm's attributes and auditor's characteristics on the inclusion of RMM topics. Columns 2 to 15 report results of the conditional logistic regression model as stated above and the coefficients presented are the relative coefficients to the base outcome (Column 1).



Table 12 Effect of the same auditor on RMM topic choice

Panel A: Descriptive statistics

Variable	N	Mean	Std. Dev.	Min	Q1	Median	Q3	Max
Diff(RMM)	217,624	1.536	1.230	-	1.000	1.000	2.000	5.000
Same(RMM_Topic)	217,624	0.793	0.405	0	1	1	1	1
Same(Auditor)	217,624	0.228	0.420	0	0	0	0	1
Same(AuditOffice)	217,624	0.081	0.273	0	0	0	0	1
Same(AuditPartner)	217,624	0.003	0.051	0	0	0	0	1
Both(Deloitte)	217,624	0.062	0.241	0	0	0	0	1
Both(EY)	217,624	0.019	0.135	0	0	0	0	1
Both(KPMG)	217,624	0.074	0.262	0	0	0	0	1
Both(PwC)	217,624	0.073	0.259	0	0	0	0	1
Both(DeloittePartner)	217,624	0.001	0.030	0	0	0	0	1
Both(EYPartner)	217,624	0.000	0.015	0	0	0	0	1
Both(KPMGPartner)	217,624	0.001	0.027	0	0	0	0	1
Both(PwCPartner)	217,624	0.001	0.027	0	0	0	0	1
Same(Ind)	217,624	0.208	0.406	0	0	0	0	1
Diff(Size)	217,624	2.085	1.664	0.033	0.802	1.703	2.957	8.648
Diff(Lev)	217,624	0.262	0.220	0.004	0.100	0.212	0.363	1.208
Diff(ROA)	217,624	0.101	0.129	0.001	0.028	0.063	0.122	0.815
Diff(ExtraOrdinaryItem)	217,624	0.008	0.032	-	-	-	0.000	0.240
Diff(lnAge)	217,624	1.358	1.246	0.014	0.446	0.988	1.863	5.820
Diff(MA_num)	217,624	0.885	1.288	-	-	-	1.000	7.000
Diff(NewEquity_num)	217,624	0.219	0.647	-	-	-	-	4.000
Both(GC)	217,624	0.000	0.022	0	0	0	0	1
Both(IPO)	217,624	0.002	0.039	0	0	0	0	1
Both(Big4)	217,624	0.866	0.340	0	1	1	1	1
Diff(AuditFirmIndExp)	217,624	0.117	0.097	-	0.039	0.095	0.177	0.395
Diff(lnAbAuditFee)	217,624	0.664	0.503	0.011	0.262	0.558	0.957	2.273
Diff(lnReportLag)	217,624	0.278	0.228	-	0.104	0.223	0.395	1.877
Same(RMM_Impair)	217,624	0.397	0.489	0	0	0	1	1
Same(RMM_Rev)	217,624	0.364	0.481	0	0	0	1	1
Same(RMM_Prov)	217,624	0.145	0.352	0	0	0	0	1
Same(RMM_Tax)	217,624	0.115	0.319	0	0	0	0	1
Same(RMM_Val)	217,624	0.091	0.288	0	0	0	0	1
Same(RMM_Pension)	217,624	0.061	0.240	0	0	0	0	1
Same(RMM_AcqDis)	217,624	0.055	0.229	0	0	0	0	1
Same(RMM_IC)	217,624	0.024	0.154	0	0	0	0	1
Same(RMM_ExItem)	217,624	0.011	0.102	0	0	0	0	1
Same(RMM_CapCost)	217,624	0.010	0.100	0	0	0	0	1
Same(RMM_Legal)	217,624	0.007	0.081	0	0	0	0	1
Same(RMM_GC)	217,624	0.006	0.080	0	0	0	0	1
Same(RMM_Policies)	217,624	0.003	0.057	0	0	0	0	1
Same(RMM_FI)	217,624	0.002	0.046	0	0	0	0	1

Panel A reports the descriptive statistics for testing the effect of the same auditor on RMM topic choice. Sample includes pairwise audit reports in the same year.



 $Diff(RMM) = \alpha + \beta_1 Same(Auditor) + \beta_2 Same(AuditOffice) + \beta_3 Same(AuditPartner) + Controls + FE + \varepsilon$

			Depende	ent variable = D	iff(RMM)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Same(Auditor)	-0.130**			-0.125**			
	[-3.742]			[-4.795]			
Same(AuditOffice)		-0.114*		-0.00985			
		[-2.426]		[-0.344]			
Same(AuditPartner)			-0.251***	-0.155**			
			[-16.725]	[-4.604]			
Both(Deloitte)				-	-0.361***		-0.358***
					[-9.740]		[-10.005]
Both(EY)					-0.0690*		-0.0645*
					[-2.994]		[-2.712]
Both(KPMG)					-0.113**		-0.113**
					[-3.347]		[-3.308]
Both(PwC)					0.0793		0.0802
					[1.528]		[1.503]
Both(DeloittePartner)						-0.536**	-0.217*
·						[-5.212]	[-2.744]
Both(EYPartner)						-0.415**	-0.382**
						[-5.108]	[-4.638]
Both(KPMGPartner)						-0.138**	-0.0587
						[-3.741]	[-1.376]
Both(PwCPartner)						0.0213	-0.0881
						[0.190]	[-0.595]
Same(Ind)	0.00296	0.00383	0.00436	0.00333	-0.00402	-0.00235	-0.00360
	[0.936]	[1.349]	[1.666]	[1.056]	[-0.720]	[-0.455]	[-0.648]
Diff(Size)	0.146***	0.146***	0.146***	0.146***	0.138***	0.140***	0.138***
	[15.522]	[15.417]	[15.404]	[15.521]	[13.908]	[14.447]	[13.933]
Diff(Lev)	0.226*	0.224*	0.226*	0.225*	0.205*	0.210*	0.205*
	[2.959]	[2.935]	[2.967]	[2.948]	[2.599]	[2.679]	[2.600]
Diff(ROA)	0.166	0.162	0.165	0.166	0.151	0.161	0.151
	[1.069]	[1.043]	[1.067]	[1.065]	[1.037]	[1.066]	[1.036]
							ed on next pag

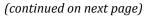


Panel B: Effect on number of RMMs (continued)

			Depende	ent variable = Di	ff(RMM)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Diff(ExtraOrdinaryItem)	1.450*	1.467*	1.457*	1.451*	1.647*	1.548*	1.646*
	[2.386]	[2.396]	[2.402]	[2.382]	[2.848]	[2.562]	[2.845]
Diff(lnAge)	-0.000401	-0.000108	0.000111	-0.000419	0.00433	0.00355	0.00429
	[-0.067]	[-0.019]	[0.019]	[-0.071]	[0.896]	[0.628]	[0.890]
Diff(MA_num)	-0.00899	-0.00868	-0.00893	-0.00897	-0.00509	-0.00697	-0.00510
	[-0.913]	[-0.890]	[-0.905]	[-0.916]	[-0.521]	[-0.720]	[-0.521]
Diff(NewEquity_num)	0.0149	0.0149	0.0150	0.0149	0.0147	0.0152	0.0147
	[0.329]	[0.323]	[0.329]	[0.328]	[0.323]	[0.342]	[0.324]
Both(GC)	-0.121	-0.119	-0.118	-0.121	-0.132	-0.145	-0.132
	[-0.815]	[-0.799]	[-0.803]	[-0.814]	[-0.842]	[-0.928]	[-0.842]
Both(IPO)	-0.0487	-0.0497	-0.0479	-0.0494	-0.0217	-0.0334	-0.0223
	[-0.919]	[-0.928]	[-0.864]	[-0.925]	[-0.620]	[-0.655]	[-0.634]
Both(Big4)	0.249**	0.237**	0.233**	0.249**			
	[5.293]	[4.977]	[4.878]	[5.294]			
Diff(AuditFirmIndExp)	-0.0168	0.0577	0.0947	-0.0179	-0.498*	-0.357*	-0.499*
	[-0.104]	[0.385]	[0.669]	[-0.110]	[-2.787]	[-2.472]	[-2.788]
Diff(lnAbAuditFee)	0.0868**	0.0869**	0.0882**	0.0866**	0.0878*	0.0927**	0.0878*
	[3.354]	[3.409]	[3.395]	[3.380]	[3.137]	[3.592]	[3.142]
Diff(lnReportLag)	0.0545	0.0533	0.0517	0.0542	0.0380	0.0229	0.0376
	[2.222]	[2.141]	[2.128]	[2.204]	[1.501]	[0.940]	[1.489]
Constant	0.726***	0.713***	0.698***	0.727***	1.022***	0.962***	1.022***
	[7.876]	[7.727]	[7.643]	[7.845]	[15.060]	[15.986]	[15.077]
Year FE, Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	217,624	217,624	217,624	217,624	217,624	217,624	217,624
R-squared	0.072	0.070	0.070	0.072	0.073	0.067	0.073

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise.

Year and industry fixed effects are included in the model but omitted for brevity. Standard errors are clustered at year level. See Appendix B for all variable descriptions. Panel B presents the regression results of the effect of the same auditor on the absolute difference of the number of RMMs in pairwise audit reports. While Columns 1 to 4 report results of the regression model as stated above, Columns 5 to 7 report results of the specific Big 4 auditors' effect from the following regression model: $Diff(RMM) = \alpha + \beta_1 Both(Deloitte) + \beta_2 Both(EY) + \beta_3 Both(FWC) + \beta_5 Both(DeloittePartner) + \beta_6 Both(EYPartner) + \beta_7 Both(FWCPartner) + \beta_8 Both(PwCPartner) + Controls + FE + \varepsilon$.





		Depend	ent variable	= Same(RMN	/I_Topic)	
	(1)	(2)	(3)	(4)	(5)	(6)
Same(Auditor)	0.0308**		0.0312**			
	[2.289]		[2.307]			
Same(AuditPartner)		-0.0118	-0.0343			
•		[-0.108]	[-0.313]			
Both(Deloitte)				0.436***		0.439**
				[16.073]		[16.059]
Both(EY)				0.540***		0.547**
• •				[11.690]		[11.757]
Both(KPMG)				-0.589***		-0.589**
				[-31.065]		[-30.959
Both(PwC)				0.363***		0.364***
				[15.550]		[15.492]
Both(DeloittePartner)					0.239	-0.191
					[1.105]	[-0.875]
Both(EYPartner)					-0.0213	-0.553
					[-0.058]	[-1.509]
Both(KPMGPartner)					-0.546***	0.0324
					[-3.083]	[0.182]
Both(PwCPartner)					0.326	-0.0354
					[1.458]	[-0.157]
Same(Ind)	0.0722***	0.0720***	0.0723***	0.0731***	0.0727***	0.0734**
	[4.801]	[4.788]	[4.806]	[4.837]	[4.838]	[4.859]
Diff(Size)	-0.0541***	-0.0540***	-0.0541***	-0.0552***	-0.0536***	-0.0553**
	[-16.167]	[-16.147]	[-16.169]	[-16.586]	[-16.178]	[-16.589]
Diff(Lev)	-0.770***	-0.770***	-0.770***	-0.747***	-0.768***	-0.747**
	[-31.990]	[-31.994]	[-31.991]	[-30.983]	[-31.977]	[-30.983]
Diff(ROA)	-1.376***	-1.376***	-1.376***	-1.374***	-1.376***	-1.374**
	[-35.169]	[-35.164]	[-35.169]	[-34.977]	[-35.162]	[-34.974]
Diff(ExtraOrdinaryItem)	2.623***	2.621***	2.623***	2.701***	2.615***	2.700***
	[13.526]	[13.517]	[13.526]	[13.820]	[13.493]	[13.815]
Diff(lnAge)	-0.109***	-0.109***	-0.109***	-0.114***	-0.110***	-0.114***
	[-25.940]	[-25.972]	[-25.940]	[-26.921]	[-26.103]	[-26.932
Diff(MA_num)	0.0559***	0.0559***	0.0559***	0.0571***	0.0557***	0.0571**
	[12.123]	[12.118]	[12.124]	[12.363]	[12.086]	[12.364]
Diff(NewEquity_num)	-0.0678***	-0.0678***	-0.0678***	-0.0712***	-0.0679***	-0.0712**
	[-8.550]	[-8.553]	[-8.549]	[-8.937]	[-8.566]	[-8.939]
Both(GC)	2.137***	2.136***	2.137***	2.133***	2.140***	2.133***
	[5.957]	[5.955]	[5.957]	[5.942]	[5.965]	[5.942]
Both(IPO)	-0.0803	-0.0810	-0.0804	-0.0975	-0.0822	-0.0980
, ,	[-0.597]	[-0.602]	[-0.597]	[-0.721]	[-0.611]	[-0.724]
Both(Big4)	-0.0251	-0.0208	-0.0252			
	[-1.292]	[-1.077]	[-1.295]			



Panel C: Effect on including same RMM topic (continued)

		Depend	ent variable	= Same(RMM	1_Topic)	
	(1)	(2)	(3)	(4)	(5)	(6)
Diff(AuditFirmIndExp)	-0.00459	-0.0292	-0.00473	0.0108	0.0109	0.0100
	[-0.064]	[-0.415]	[-0.066]	[0.175]	[0.182]	[0.163]
Diff(lnAbAuditFee)	-0.0922***	-0.0926***	-0.0922***	-0.0947***	-0.0932***	-0.0947***
	[-8.609]	[-8.642]	[-8.610]	[-8.800]	[-8.709]	[-8.796]
Diff(lnReportLag)	0.0174	0.0178	0.0174	0.0440*	0.0206	0.0438*
	[0.692]	[0.707]	[0.689]	[1.744]	[0.820]	[1.735]
Constant	1.980***	1.987***	1.980***	1.873***	1.959***	1.873***
	[31.604]	[31.751]	[31.605]	[32.467]	[34.295]	[32.471]
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	217,624	217,624	217,624	217,624	217,624	217,624

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Industry fixed effects are included in the model but omitted for brevity. See Appendix B for all variable descriptions.

Panel C presents the Firth logistic regression results of the effect of the same auditor on the inclusion of the same RMM topic. While Columns 1 to 3 report results of the regression model as stated above, Columns 4 to 6 report results of the specific Big 4 auditors' effect from the following Firth logistic regression model:

Pr[Same(RMM_Topic)] =



 $[\]alpha + \beta_1 Both(Deloitte) + \beta_2 Both(EY) + \beta_3 Both(KPMG) + \beta_4 Both(PwC) + \beta_5 Both(DeloittePartner) + \beta_6 Both(EYPartner) + \beta_7 Both(KPMGPartner) + \beta_8 Both(PwCPartner) + Controls + FE + \varepsilon.$

Panel D-1: Univariate effect of the same auditor on including same specific RMM topic

		Dependent variable = Same(RMM_SpecTopic)												
	Impair	Rev	Prov	Tax	Val	Pension	AcqDis	IC	ExItem	CapCost	Legal	GC	Policies	FI
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Same(Auditor)	0.111***	-0.110**	0.167***	0.220***	0.0138	0.187***	0.133***	0.735*	0.265*	0.000439	0.0220	-0.259***	0.107	0.240***
	[3.626]	[-1.975]	[5.473]	[3.269]	[0.358]	[4.269]	[3.841]	[1.958]	[1.845]	[0.006]	[0.215]	[-2.856]	[0.811]	[2.859]
Constant	-0.727***	-0.626***	-2.024***	-2.323***	-1.939***	-3.049***	-2.796***	-3.755***	-4.939***	-5.061***	-4.799***	-5.179***	-5.726***	-5.303***
	[-13.596]	[-8.288]	[-28.028]	[-14.816]	[-26.108]	[-29.770]	[-16.546]	[-8.154]	[-29.625]	[-37.259]	[-31.222]	[-21.580]	[-18.129]	[-32.472]
Observations	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457

Panel D-2: Univariate effect of the specific Big 4 auditors on including same specific RMM topic

						Dependent	variable = S	Same(RMM_	SpecTopic)					
	Impair	Rev	Prov	Tax	Val	Pension	AcqDis	IC	ExItem	CapCost	Legal	GC	Policies	FI
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Both(Deloitte)	0.483***	0.112	0.356***	0.105	0.175	0.360***	0.545***	-2.356***	-0.436	0.00243	-0.792***	0.0308	0.269	0.0364
	[4.336]	[1.006]	[3.116]	[0.664]	[1.608]	[2.777]	[5.888]	[-6.403]	[-1.369]	[0.008]	[-2.876]	[0.146]	[0.753]	[0.099]
Both(EY)	-0.166	1.094***	-0.926***	0.233	-0.490*	-1.181***	0.119	1.497***	0.564	-0.729**	-0.0542	0.583**	-0.170	-1.125*
	[-1.395]	[5.828]	[-5.646]	[1.338]	[-1.942]	[-3.644]	[0.564]	[3.351]	[1.441]	[-2.391]	[-0.165]	[1.990]	[-0.260]	[-1.907]
Both(KPMG)	-0.156*	-0.982***	-0.0782	-0.441***	0.383***	-0.376*	-0.821***	-3.462***	-1.062***	-0.336	-0.670***	-2.140***	-0.455	-0.122
	[-1.684]	[-4.716]	[-0.568]	[-3.366]	[2.887]	[-1.797]	[-3.856]	[-7.130]	[-3.422]	[-1.285]	[-2.903]	[-4.633]	[-1.640]	[-0.457]
Both(PwC)	0.0808	0.0549	0.373***	0.734***	-0.615***	0.566***	0.323**	1.771***	1.033***	0.294	0.741***	-0.0411	0.406	0.747***
	[0.858]	[0.160]	[2.678]	[3.244]	[-3.908]	[4.315]	[1.969]	[3.039]	[3.974]	[1.321]	[3.619]	[-0.173]	[1.502]	[3.443]
Constant	-0.727***	-0.624***	-2.025***	-2.324***	-1.938***	-3.049***	-2.797***	-3.751***	-4.940***	-5.057***	-4.800***	-5.179***	-5.727***	-5.304***
	[-13.612]	[-8.268]	[-28.005]	[-14.794]	[-26.098]	[-29.675]	[-16.548]	[-8.135]	[-29.632]	[-37.072]	[-31.168]	[-21.550]	[-18.131]	[-32.431]
Observations	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise.

 $[\]Pr[Same(RMM_SpecTopic)] = \alpha + \beta_1 Both(Deloitte) + \beta_2 Both(EY) + \beta_3 Both(KPMG) + \beta_4 Both(PwC) + \varepsilon.$



Standard errors are clustered at year and firm level. See Appendix B for all variable descriptions.

Panel D-1 presents the logistic regression results of the univariate effect of the same auditor on the inclusion of the same specific RMM topic, while Panel D-2 presents the logistic regression results of the univariate effect of the specific Big 4 auditors on the inclusion of the same specific RMM topic from the following model:

Table 13
Effect of prior expert's RMM topic choice on RMM topic choice

Panel A: Descriptive statistics

Variable	N	Mean	Std. Dev.	Min	Q1	Median	Q3	Max
RMM_{firm}	66,827	3.662	1.345	1.000	3.000	4.000	4.000	8.000
Follow(RMM_Topic)	66,827	0.038	0.191	0	0	0	0	1
PriorIndExp	66,827	0.333	0.471	0	0	0	1	1
RMM _{pairwise firm}	66,827	3.832	1.336	1.000	3.000	4.000	5.000	8.000
Diff(Size)	66,827	1.881	1.546	0.029	0.723	1.530	2.641	8.854
Diff(Lev)	66,827	0.255	0.242	0.004	0.095	0.198	0.341	1.506
Diff(ROA)	66,827	0.107	0.226	0.001	0.025	0.056	0.108	1.796
Diff(ExtraOrdinaryItem)	66,827	0.265	0.442	-	-	-	1.000	1.000
Diff(lnAge)	66,827	1.241	1.147	0.013	0.416	0.910	1.688	5.837
Loss	66,827	0.156	0.362	0	0	0	0	1
GC	66,827	0.011	0.106	0	0	0	0	1
MA_num	66,827	0.622	1.144	-	-	-	1.000	6.000
NewEquity_num	66,827	0.191	0.563	-	-	-	-	3.000
IPO	66,827	0.008	0.091	0	0	0	0	1
Busy	66,827	0.479	0.500	0	0	0	1	1
NewAuditor	66,827	0.077	0.266	0	0	0	0	1
Same(Auditor)	66,827	0.236	0.425	0	0	0	0	1
Both(Big4)	66,827	0.858	0.349	0	1	1	1	1
Diff(AuditFirmIndExp)	66,827	0.103	0.090	0.002	0.032	0.077	0.158	0.348
Diff(InAbAuditFee)	66,827	0.621	0.476	0.011	0.244	0.518	0.895	2.245
Diff(InReportLag)	66,827	0.265	0.215	-	0.097	0.210	0.376	0.935
Follow(RMM_Impair)	66,827	0.010	0.098	0	0	0	0	1
Follow(RMM_Rev)	66,827	0.004	0.059	0	0	0	0	1
Follow(RMM_Prov)	66,827	0.007	0.083	0	0	0	0	1
Follow(RMM_Tax)	66,827	0.003	0.059	0	0	0	0	1
Follow(RMM_Val)	66,827	0.003	0.050	0	0	0	0	1
Follow(RMM_Pension)	66,827	0.002	0.045	0	0	0	0	1
Follow(RMM_AcqDis)	66,827	0.010	0.098	0	0	0	0	1
Follow(RMM_IC)	66,827	0.000	0.018	0	0	0	0	1
Follow(RMM_ExItem)	66,827	0.001	0.027	0	0	0	0	1
Follow(RMM_CapCost)	66,827	0.000	0.019	0	0	0	0	1
Follow(RMM_Legal)	66,827	0.000	0.016	0	0	0	0	1
Follow(RMM_GC)	66,827	0.000	0.017	0	0	0	0	1
Follow(RMM_Policies)	66,827	0.001	0.024	0	0	0	0	1
Follow(RMM_FI)	66,827	0.000	0.004	0	0	0	0	1

Panel A reports the descriptive statistics for testing the effect of prior expert's RMM topic choice on RMM topic choice. Sample includes pairwise audit reports of the same industry firms in prior and current years (i.e. year t and year t-1).



Panel B: Effect on number of RMMs

Panel B: Effect on number of RMMs	Dependent variable = RMM _{firm}
PriorIndExp	
rnormaexp	[-2.689]
RMM pairwise firm	-0.0342***
NIVI Pairwise firm	[-7.512]
PriorIndExp x RMM _{pairwise firm}	0.00836*
THOT INCLUDED A INTERPOLITATION OF THE PROPERTY OF THE PROPERT	[1.825]
Diff(Size)	0.0329
21)(0120)	[1.312]
Diff(Lev)	0.116
- 5)()	[0.543]
Diff(ROA)	-0.659***
	[-2.908]
Diff(ExtraOrdinaryItem)	0.282***
	[5.881]
Diff(lnAge)	-0.0295*
	[-1.745]
Loss	0.643***
	[4.768]
GC	-1.001**
	[-2.081]
MA_num	0.148***
	[3.662]
NewEquity_num	-0.168**
	[-2.181]
IPO	-0.00183
_	[-0.004]
Busy	0.0246
4 70	[0.220]
<i>NewAuditor</i>	0.208***
	[5.469]
Same(Auditor)	-0.0341
Doth (Diad)	[-1.393]
Both(Big4)	0.0956 [1.063]
Diff(AuditFirmIndExp)	[1.063] -0.0272
υιματια παπασχρη	[-0.123]
Diff(lnAbAuditFee)	-0.0253
DIJJ (III IDI IUUIU EE J	[-0.503]
Diff(InReportLag)	0.0355
JJ (op or obug)	[0.281]
Constant	4.106
	[0.000]
Year FE, Industry FE	Yes
Observations	66,827
R-squared	0.103

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Year and industry fixed effects are included in the model but omitted for brevity. Standard errors are clustered at year and firm level. See Appendix B for all variable descriptions.

Panel B presents the regression result of the effect of prior expert's number of RMMs on number of RMMs. Column 1 reports result of the regression model as stated above.

(continued on next page)



Panel C: Effect on following RMM topic ch	Dependent variable = Follow(RMM_Topic)
	(1)
PriorIndExp	9.379***
	[6.629]
Diff(Size)	-0.0420**
	[-2.561]
Diff(Lev)	0.199*
	[1.894]
Diff(ROA)	-1.339***
	[-5.044]
Diff(ExtraOrdinaryItem)	0.0472
	[0.977]
Diff(lnAge)	0.0174
	[0.865]
Loss	0.376***
	[6.127]
GC	-0.775***
	[-2.625]
MA_num	0.143***
	[8.143]
NewEquity_num	-0.0305
now 2quity_num	[-0.804]
IPO	0.0482
	[0.218]
Busy	0.0691
2 4.59	[1.524]
NewAuditor	1.029***
Trown autor	[16.071]
Same(Auditor)	-0.260***
Sume(Multor)	[-4.763]
Both(Big4)	0.123
both(big i)	[1.058]
Diff(AuditFirmIndExp)	-0.410
Dijj(Maaidi ii iiimaExp)	[-1.188]
Diff(lnAbAuditFee)	-0.320***
Dijj(iliAbAdditree)	[-6.609]
Diff(InReportLag)	-0.311***
и и питероп свиду	
Constant	[-2.903] -11.47***
Constant	
In directors FE	[-7.615]
Industry FE	Yes
Observations	66,827

^{*,**,***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Industry fixed effects are included in the model but omitted for brevity. See Appendix B for all variable descriptions. Panel B presents the Firth logistic regression result of the effect of prior expert's RMM topic choice on following RMM topic choice. (continued on next page) Column 1 reports result of the logistic regression model as stated above.



Panel D: Univariate effect on following specific RMM topic

		Dependent variable = Follow(RMM_SpecTopic)												
	Impair	Rev	Prov	Tax	Val	Pension	AcqDis	IC	ExItem	CapCost	Legal	GC	Policies	FI
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
PriorIndExp	8.114***	7.471***	7.689***	7.077***	6.922***	6.549***	8.305***	6.224***	5.472***	4.731***	5.180***	4.474***	5.377***	5.131***
	[5.710]	[5.262]	[5.550]	[4.964]	[4.906]	[4.625]	[6.006]	[4.392]	[3.848]	[3.314]	[3.641]	[3.126]	[3.784]	[3.603]
Constant	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***
	[-8.326]	[-8.335]	[-8.542]	[-8.303]	[-8.390]	[-8.365]	[-8.555]	[-8.364]	[-8.354]	[-8.363]	[-8.361]	[-8.363]	[-8.364]	[-8.358]
Observations	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436

^{*, ***, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise.



See Appendix B for all variable descriptions.

Panel D presents the Firth logistic regression results of the univariate effect of prior expert's RMM topic choice on following specific RMM topic choice. Columns 1to 14 report results of the logistic regression model as stated above.

Table 14 Effect of prior expert's RMM topic choice on RMM topic choice under various conditions

 $\Pr[Follow(RMM_Topic)] = \alpha + \beta_1 PriorIndExp + \beta_2 Condition + \boldsymbol{\beta_3} PriorIndExp * Condition + Controls + \varepsilon$

Panel A: Non-Big 4 auditors' tendency to follow prior expert

	Dependent va	riable = Follow	(RMM_Topic)
	(1)	(2)	(3)
PriorIndExp	-		
NonBig4	-		
BasicMat	0.461***		
	[11.166]		
PriorIndExp x NonBig4	-0.245		
	[-0.515]		
PriorIndExp x BasicMat	-		
NonBig4 x BasicMat	-		
PriorIndExp x NonBig4 x BasicMat	1.072***		
	[2.650]		
GT		-	
PriorIndExp x GT		-0.422	
		[-1.468]	
BDO			-
PriorIndExp x BDO			0.146
			[0.169]
Controls	Yes	Yes	Yes
Observations	22,225	22,225	22,225

^{*, ***, ****} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Standard errors are clustered at year and firm level. See Appendix B for all variable descriptions.

Panel A presents the logistic regression results of the incremental effect of prior expert's RMM topic choice on following RMM topic choice when auditors are Non-Big 4 auditors. Columns 1 to 3 report results of the logistic regression model as stated above.



Panel B: Auditors' tendency to follow specific prior expert

	Dependent variable = Follow(RMM_Topic)
	(1)
PriorIE_Deloitte	9.635***
	[6.811]
PriorIE_EY	9.741***
	[6.861]
PriorIE_KPMG	9.185***
	[6.494]
PriorIE_PwC	9.325***
	[6.576]
Controls	Yes
Observations	66,827

Chi2-test on difference between coefficients

	Chi2	2-test
PriorIE_KPMG < PriorIE_Deloitte	87.20***	
PriorIE_KPMG < PriorIE_EY	18.25***	All: 95.71***
PriorIE_KPMG < PriorIE_PwC	1.68	

Panel C: Auditors' tendency to follow prior expert given specific client firm's conditions

	Depe	endent variable =	Follow(RMM_Spo	ecTopic)
	GC	AcqDis	ExItem	ExItem
	(1)	(2)	(3)	(4)
PriorIndExp	4.062***	7.693***	5.122***	4.940***
	[2.827]	[5.433]	[3.591]	[3.461]
PriorIndExp x Both(GC)	3.327**			
	[2.569]			
PriorIndExp x Both(MA)		1.371***	0.719*	
		[14.396]	[1.670]	
PriorIndExp x Both(NewDebt)				1.817***
				[4.350]
Controls	Yes	Yes	Yes	Yes
Observations	66,827	66,827	66,827	66,827

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. See Appendix B for all variable descriptions.



Panel B presents the Firth logistic regression result of the incremental effect of prior expert's RMM topic choice on following RMM topic choice when prior expert is a specific auditor. Column 1 reports result of the logistic regression model as follows: $\Pr[Follow(RMM_Topic)] = \alpha + \beta_1 PriorIndExp * Condition + Controls + \varepsilon.$

Panel C presents the Firth logistic regression results of the incremental effect of prior expert's RMM topic choice on following RMM topic when the client firm has credition. Columns 1 to 4 reports results of the logistic regression model as follows:

choice when the client firm has specific condition. Columns 1 to 4 report results of the logistic regression model as follows: $Pr[Follow(RMM_SpecTopic)] = \alpha + \beta_1 PriorIndExp + \beta_2 Condition + \beta_3 PriorIndExp * Condition + Controls + \varepsilon$.

Table 15 Relationship between RMM textual similarity and RMM topics

 $Avg_SameAuditor_Sim_score = \alpha + Same(RMM_Topic)_num + FE + \varepsilon$

Panel A: Effect of the same auditor

	Dependent variable = Avg_SameAuditor_RMM_Sim_score
	(1)
Same(RMM_Topic)_num	0.527***
	[4.730]
Constant	5.755***
	[4.103]
Year FE, Industry FE	Yes
Observations	1,659
R-squared	0.199

 $Avg_PriorIndExp_Sim_score = \alpha + Same(RMM_Topic)_num \ or \ Follow(RMM_Topic)_num + FE + \varepsilon$

Panel B: Effect of prior expert

	Dependent variable = Avg_F	PriorIndExp_RMM_Sim_score
	(1)	(2)
Same(RMM_Topic)_num	0.579***	
	[7.579]	
Follow(RMM_Topic)_num		0.457***
		[2.786]
Constant	4.795***	6.847***
	[8.721]	[12.354]
Year FE, Industry FE	Yes	Yes
Observations	1,426	1,426
R-squared	0.173	0.137

^{*,***,***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Year and industry fixed effects are included in the model but omitted for brevity. Standard errors are clustered at year and firm level. See Appendix B for all variable descriptions.



Panel A presents the regression result of including the total number of same specific RMM topics on the average RMM textual similarity of a client firm in relation to other firms using the same auditor in the same year. Sample includes firm-year observations. Panel B presents the regression results of either including the total number of same specific RMM topics or following the total number of specific RMM topics on the average RMM textual similarity of a client firm in relation to other same industry firms audited by a prior expert.

Table 16
Description and distribution of audit work in response to specific RMM topics

Panel A: Audit work in response to impairment (total RMM inclusion of impairment: 811)

Audit work	Adoption	Adoption %									
Audit work	Auopuon	Total	2013	2014	2015	2016	Deloitte	EY	KPMG	PwC	
Management's judgment assessment	808	100%	100%	100%	99%	100%	100%	99%	100%	100%	
Sensitivity test	672	83%	81%	84%	83%	83%	70%	82%	94%	89%	
Cash flow projection	638	79%	77%	82%	78%	77%	72%	72%	88%	82%	
External data review	629	78%	60%	77%	79%	86%	80%	52%	93%	78%	
Historical performance review	527	65%	50%	68%	64%	71%	67%	54%	66%	70%	
Financial disclosures review	461	57%	42%	51%	61%	66%	42%	56%	97%	41%	
Expert involvement	433	53%	38%	46%	58%	64%	72%	76%	52%	21%	
Relevant standards review	177	22%	13%	21%	24%	24%	26%	52%	12%	12%	
Management discussion	121	15%	6%	15%	18%	17%	17%	24%	9%	14%	
Controls testing	101	12%	8%	10%	13%	17%	21%	12%	10%	6%	
Breakeven test	39	5%	6%	5%	5%	5%	0%	0%	19%	0%	
Samples testing	38	5%	3%	4%	6%	5%	4%	9%	0%	6%	
Accounting policies review	21	3%	2%	2%	2%	4%	5%	3%	0%	3%	
Field visit/ stock take	4	0%	1%	0%	0%	1%	0%	3%	0%	0%	

Panel B: Audit work in response to revenue recognition (total RMM inclusion of revenue recognition: 782)

Audit work	Adoption				I	Adoption	%			
Auuit WOFK	Adoption	Total	2013	2014	2015	2016	Deloitte	EY	KPMG	PwC
Samples testing	701	90%	83%	87%	92%	94%	91%	90%	89%	87%
Contracts review	513	66%	58%	61%	68%	71%	65%	61%	76%	67%
Manual controls testing	476	61%	56%	60%	63%	62%	60%	73%	70%	51%
Substantive analytic testing	422	54%	34%	58%	59%	57%	63%	71%	60%	32%
Management's judgment assessment	319	41%	36%	38%	41%	46%	39%	35%	52%	43%
Accounting policies review	259	33%	34%	31%	35%	33%	32%	39%	31%	27%
Relevant standards review	220	28%	25%	25%	33%	29%	30%	46%	28%	11%
Journal entries testing	210	27%	33%	30%	23%	24%	6%	51%	8%	50%
External data review	198	25%	17%	20%	28%	33%	30%	13%	37%	25%
Management discussion	175	22%	11%	18%	25%	31%	25%	23%	35%	14%
IT controls testing	171	22%	20%	22%	22%	22%	19%	16%	18%	34%
Financial disclosures review	153	20%	14%	18%	22%	22%	2%	21%	72%	3%
Reconciliation	131	17%	15%	15%	16%	20%	12%	9%	18%	24%



Panel C: Audit work in response to provisioning (total RMM inclusion of provisioning: 487)

Audit work	Adoption		Adoption %								
Audit work	Adoption	Total	2013	2014	2015	2016	Deloitte	EY	KPMG	PwC	
Management's judgment assessment	478	98%	100%	99%	98%	97%	99%	95%	99%	99%	
Historical performance review	273	56%	38%	55%	60%	61%	53%	38%	62%	55%	
External data review	242	50%	45%	43%	54%	55%	42%	71%	56%	53%	
Financial disclosures review	170	35%	34%	34%	35%	37%	3%	36%	92%	21%	
Samples testing	162	33%	18%	29%	36%	41%	47%	24%	24%	32%	
Management discussion	152	31%	29%	32%	33%	30%	26%	55%	38%	29%	
Controls testing	123	25%	15%	26%	25%	28%	34%	24%	28%	17%	
Contracts review	96	20%	9%	17%	24%	23%	19%	17%	6%	35%	
Accounting policies review	76	16%	8%	16%	15%	19%	15%	12%	16%	19%	
Relevant standards review	69	14%	11%	12%	18%	15%	11%	33%	19%	9%	
Expert involvement	59	12%	8%	8%	11%	19%	11%	26%	17%	7%	
Field visit/ stock take	40	8%	9%	11%	7%	6%	17%	0%	3%	5%	

Panel D: Audit work in response to taxation (total RMM inclusion of taxation: 445)

Audit work	Adoption	Adoption %									
Audit work	Adoption	Total	2013	2014	2015	2016	Deloitte	EY	KPMG	PwC	
Management's judgment assessment	441	99%	99%	98%	99%	100%	99%	100%	99%	99%	
Expert involvement	316	71%	55%	69%	77%	79%	91%	67%	94%	46%	
External correspondence/ tax advice											
review	307	69%	62%	75%	72%	65%	74%	49%	74%	70%	
Financial disclosures review	190	43%	39%	38%	45%	48%	22%	43%	96%	25%	
Management discussion	88	20%	14%	19%	22%	22%	15%	17%	7%	29%	
Transfer pricing review	66	15%	10%	17%	14%	17%	9%	26%	10%	15%	
Relevant standards review	65	15%	13%	12%	17%	16%	8%	23%	14%	16%	
Controls testing	36	8%	2%	6%	9%	14%	9%	10%	9%	5%	



Panel E: Audit work in response to valuation (total RMM inclusion of valuation: 388)

Audit work	Adoption				A	Adoption ⁹	%			
Audit work	Auopuon	Total	2013	2014	2015	2016	Deloitte	EY	KPMG	PwC
Management's judgment assessment	385	99%	98%	100%	99%	99%	100%	98%	100%	99%
External data review	229	59%	58%	61%	56%	61%	61%	54%	60%	59%
Historical performance review	173	45%	31%	43%	50%	47%	41%	19%	59%	52%
Financial disclosures review	167	43%	31%	41%	50%	44%	18%	35%	85%	20%
Controls testing	127	33%	20%	28%	39%	37%	41%	46%	35%	14%
Substantive analytic testing	123	32%	31%	29%	34%	32%	37%	40%	25%	34%
Expert involvement	102	26%	22%	25%	28%	28%	30%	58%	24%	6%
Management discussion	77	20%	15%	19%	17%	26%	23%	29%	12%	18%
Cash flow projection	75	19%	22%	21%	21%	15%	17%	21%	24%	20%
Field visit/ stock take	69	18%	15%	18%	20%	17%	19%	13%	20%	14%
Accounting policies review	61	16%	9%	15%	18%	17%	16%	10%	15%	27%
Relevant standards review	60	15%	9%	13%	19%	17%	19%	23%	12%	18%
Portfolio review	14	4%	7%	4%	2%	3%	3%	4%	2%	4%

Panel F: Audit work in response to pension (total RMM inclusion of pension: 319)

Audit work	Adoption	Adoption %										
Auuit WOI K	Adoption	Total	2013	2014	2015	2016	Deloitte	EY	KPMG	PwC		
Management's judgment assessment	317	99%	98%	99%	100%	100%	100%	96%	100%	100%		
Benchmarking with external data	275	86%	69%	83%	91%	94%	91%	52%	97%	88%		
Expert involvement	232	73%	69%	63%	76%	81%	92%	89%	97%	40%		
Financial disclosures review	118	37%	42%	34%	34%	40%	21%	52%	99%	12%		
External confirmation	84	26%	27%	26%	31%	22%	20%	33%	14%	35%		
Third parties valuation	65	20%	13%	17%	24%	23%	25%	33%	6%	22%		
Relevant standards review	60	19%	9%	20%	23%	19%	20%	67%	6%	11%		
Controls testing	36	11%	9%	10%	15%	11%	12%	7%	19%	9%		
Management discussion	24	8%	7%	10%	7%	6%	15%	4%	1%	5%		
Administrator's controls testing	6	2%	2%	1%	2%	2%	0%	7%	4%	1%		



Panel G: Audit work in response to acquisition and disposal (total RMM inclusion of acquisition and disposal: 297)

Audit work	Adontion	Adoption %										
Audit work	Auopuon	Total	2013	2014	2015	2016	Deloitte	EY	KPMG	PwC		
Valuation model assessment	289	97%	97%	97%	98%	96%	98%	98%	98%	96%		
External data review	151	51%	53%	38%	55%	57%	51%	40%	70%	49%		
Expert involvement	148	50%	33%	43%	56%	55%	66%	53%	46%	34%		
Purchase & sales agreements review	147	49%	31%	54%	50%	53%	56%	40%	41%	46%		
Financial disclosures review	134	45%	42%	43%	45%	48%	23%	50%	92%	33%		
Relevant standards review	132	44%	39%	37%	48%	49%	41%	55%	44%	41%		
Cash flow projection	79	27%	22%	24%	33%	23%	20%	23%	22%	44%		
Management discussion	55	19%	11%	17%	18%	24%	16%	25%	19%	21%		
Controls testing	30	10%	0%	11%	11%	13%	21%	10%	5%	5%		
Reconciliation	18	6%	0%	4%	9%	7%	8%	0%	0%	12%		
Field visit/ stock take	10	3%	0%	4%	5%	2%	1%	5%	0%	8%		

Table 16 presents the distribution of audit work categories in response to specific RMM topics in all firm-year observations. Total adoption percentage is measured by number of audit reports adopting the specific audit work scaled by the total number of audit reports including the relevant RMM topic. Adoption percentage year breakdown is measured by number of audit reports adopting the specific audit work in the specific year (i.e. 2013, 2014, 2015, or 2016) scaled by the total number of audit reports including the relevant RMM topic in the specific year. Adoption percentage Big 4 auditors breakdown is measured by number of audit reports adopting the specific audit work by the specific Big 4 auditors (i.e. Deloitte, EY, KPMG, or PwC) scaled by the total number of audit reports including the relevant RMM topic by the specific Big 4 auditors.



Table 17 Effect of the same auditor on RMM audit work choice

 $\Pr[Same(AuditWork)] = \alpha + \beta_1 Same(Auditor) + \beta_2 Same(AuditPartner) + Controls + FE + \varepsilon$

Panel A: Descriptive statistics

Panel A: Descriptive statis Variable	N	Mean	Std. Dev.	Min	Q1	Median	Q3	Max
Same(AuditWork)	217,624	0.988	0.111	0	1	1	1	1
Same(Auditor)	217,624	0.180	0.384	0	0	0	0	1
Same(AuditPartner)	217,624	0.002	0.046	0	0	0	0	1
Both(Deloitte)	217,624	0.053	0.225	0	0	0	0	1
Both(EY)	217,624	0.015	0.122	0	0	0	0	1
Both(KPMG)	217,624	0.051	0.219	0	0	0	0	1
Both(PwC)	217,624	0.060	0.237	0	0	0	0	1
Both(DeloittePartner)	217,624	0.001	0.028	0	0	0	0	1
Both(EYPartner)	217,624	0.000	0.013	0	0	0	0	1
Both(KPMGPartner)	217,624	0.001	0.023	0	0	0	0	1
Both(PwCPartner)	217,624	0.001	0.025	0	0	0	0	1
Same(Ind)	217,624	0.208	0.406	0	0	0	0	1
Diff(Size)	217,624	2.085	1.664	0.033	0.802	1.703	2.957	8.648
Diff(Lev)	217,624	0.262	0.220	0.004	0.100	0.212	0.363	1.208
Diff(ROA)	217,624	0.101	0.129	0.001	0.028	0.063	0.122	0.815
Diff(ExtraOrdinaryItem)	217,624	0.008	0.032	-	-	-	0.000	0.240
Diff(lnAge)	217,624	1.358	1.246	0.014	0.446	0.988	1.863	5.820
Diff(MA_num)	217,624	0.885	1.288	-	-	-	1.000	7.000
Diff(NewEquity_num)	217,624	0.219	0.647	-	-	-	-	4.000
Both(GC)	217,624	0.000	0.022	0	0	0	0	1
Both(IPO)	217,624	0.002	0.039	0	0	0	0	1
Both(Big4)	217,624	0.866	0.340	0	1	1	1	1
Diff(AuditFirmIndExp)	217,624	0.117	0.097	-	0.039	0.095	0.177	0.395
Diff(lnAbAuditFee)	217,624	0.664	0.503	0.011	0.262	0.558	0.957	2.273
Diff(lnReportLag)	217,624	0.276	0.221	-	0.104	0.223	0.395	0.954
Same(Impair_AuditWork)	217,624	0.623	0.485	0	0	1	1	1
Same(Rev_AuditWork)	217,624	0.596	0.491	0	0	1	1	1
Same(Prov_AuditWork)	217,624	0.405	0.491	0	0	0	1	1
Same(Tax_AuditWork)	217,624	0.352	0.478	0	0	0	1	1
Same(Val_AuditWork)	217,624	0.288	0.453	0	0	0	1	1
Same(Pension_AuditWork)	217,624	0.242	0.428	0	0	0	0	1
Same(AcqDis_AuditWork)	217,624	0.235	0.424	0	0	0	0	1

Panel A reports the descriptive statistics for testing the effect of the same auditor on audit work choice in response to specific RMM topics. Sample includes pairwise audit reports in the same year.



Panel B: Regression mo	del	Donon	dont variable	- Cama(Audi	tWorls)	
	(1)	(2)	dent variable (3)	(4)	(5)	(6)
Samo(Auditon)	6.828***	(2)	6.822***	(4)	(3)	(0)
Same(Auditor)	[4.826]		[4.821]			
Same(AuditPartner)	[4.020]	1.376	-5.176***			
Junic (Auditi di tilei)		[0.970]	[-2.584]			
Both(Deloitte)		[0.570]	[-2.504]	5.264***		5.255***
Both (Belolite)				[3.720]		[3.713]
Both(EY)				3.847***		3.841***
				[2.717]		[2.712]
Both(KPMG)				5.564***		5.559***
()				[3.929]		[3.924]
Both(PwC)				6.023***		6.018***
				[4.255]		[4.250]
Both(DeloittePartner)					0.190	-4.784**
,					[0.134]	[-2.387]
Both(EYPartner)					-1.461	-5.097**
,					[-1.008]	[-2.520]
Both(KPMGPartner)					-0.129	-5.428***
					[-0.091]	[-2.703]
Both(PwCPartner)					0.494	-5.253***
					[0.345]	[-2.610]
Same(Ind)	-0.116**	-0.111*	-0.116**	-0.115*	-0.111*	-0.115*
	[-1.969]	[-1.879]	[-1.969]	[-1.951]	[-1.886]	[-1.951]
Diff(Size)	-0.517***	-0.513***	-0.517***	-0.513***	-0.514***	-0.513***
	[-43.498]	[-43.608]	[-43.498]	[-44.594]	[-45.069]	[-44.595]
Diff(Lev)	-1.766***	-1.810***	-1.766***	-1.757***	-1.812***	-1.757***
	[-23.458]	[-24.173]	[-23.458]	[-23.418]	[-24.308]	[-23.417]
Diff(ROA)	-0.818***	-0.744***	-0.818***	-0.809***	-0.746***	-0.809***
	[-7.431]	[-6.755]	[-7.431]	[-7.343]	[-6.781]	[-7.343]
Diff(ExtraOrdinaryItem)	4.000***	4.077***	4.000***	3.977***	4.079***	3.977***
	[3.962]	[3.999]	[3.962]	[3.936]	[4.001]	[3.936]
Diff(lnAge)	-0.322***	-0.330***	-0.322***	-0.324***	-0.330***	-0.324***
	[-21.725]	[-22.439]	[-21.725]	[-22.025]	[-22.564]	[-22.025]
Diff(MA_num)	0.202***	0.198***	0.202***	0.200***	0.198***	0.200***
	[9.024]	[8.859]	[9.024]	[8.969]	[8.873]	[8.969]
Diff(NewEquity_num)	-0.589***	-0.566***	-0.589***	-0.590***	-0.566***	-0.590***
	[-27.107]	[-26.387]	[-27.107]	[-27.218]	[-26.412]	[-27.219]
Both(GC)	-1.427***	-1.432***	-1.427***	-1.408***	-1.433***	-1.408***
	[-3.415]	[-3.499]	[-3.415]	[-3.359]	[-3.507]	[-3.359]
Both(IPO)	-2.088***	-2.121***	-2.088***	-2.093***	-2.121***	-2.093***
D .1 (D) . ()	[-6.930]	[-7.136]	[-6.930]	[-6.950]	[-7.135]	[-6.950]
Both(Big4)	-0.105	0.0104	-0.105			
Differ Line	[-1.380]	[0.136]	[-1.380]		0.00040	0.0504646
Diff(AuditFirmIndExp)	0.749***	0.0297	0.749***	0.953***	0.00940	0.953***
Diff(Om Ala Art diett)	[2.727]	[0.109]	[2.727]	[4.196]	[0.042]	[4.196]
Diff(lnAbAuditFee)	0.000154	-0.0244	0.000152	-0.00229	-0.0242	-0.00227
Diff(In Donort I a a)	[0.003]	[-0.555]	[0.003]	[-0.052]	[-0.550]	[-0.051]
Diff(lnReportLag)	-0.261***	-0.296***	-0.261***	-0.252***	-0.296***	-0.252***
Constant	[-2.799]	[-3.195]	[-2.799] 5.920***	[-2.702]	[-3.212]	[-2.703]
Constant	5.920***	6.225***		5.775***	6.239***	5.775***
Industry EE	[26.397]	[27.795]	[26.397]	[29.217]	[31.696]	[29.219]
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	217,624	217,624	217,624	217,624	217,624	217,624



Panel B: Regression model (continued)



^{*, **, ****} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Industry fixed effects are included in the model but omitted for brevity. See Appendix B for all variable descriptions. Panel B presents the Firth logistic regression results of the effect of the same auditor on the adoption of audit work in response to specific RMM topics. While Columns 1 to 3 report results of the regression model as stated above, Columns 4 to 6 report results of the specific Big 4 auditors' effect from the following Firth logistic regression model: $Pr[Same(AuditWork)] = \alpha + \beta_1 Both(Deloitte) + \beta_2 Both(EY) + \beta_3 Both(KPMG) + \beta_4 Both(PwC) + \beta_5 Both(DeloittePartner) + \beta_6 Both(EYPartner) + \beta_7 Both(KPMGPartner) + \beta_8 Both(PwCPartner) + Controls + FE + \varepsilon$.

Panel C-1: Univariate effect of the same auditor on adopting audit work in response to specific RMM topics

			Dependent varia	ble = Same(SpecT	opic_AuditWork)		
	Impair	Rev	Prov	Tax	Val	Pension	AcqDis
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Same(Auditor)	6.025***	10.70***	10.64***	6.397***	10.73***	10.50***	10.52***
	[48.318]	[7.571]	[7.527]	[38.560]	[7.601]	[7.418]	[7.446]
Constant	0.117***	0.227***	-0.591***	-0.857***	-0.743***	-1.360***	-1.201***
	[34.199]	[66.319]	[-170.087]	[-236.211]	[-208.684]	[-332.587]	[-306.813]
Observations	372,457	372,457	372,457	372,457	372,457	372,457	372,457

Panel C-2: Univariate effect of the specific Big 4 auditors on adopting audit work in response to specific RMM topics

			Dependent varia				
	Impair	Rev	Prov	Tax	Val	Pension	AcqDis
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Both(Deloitte)	5.004***	9.602***	9.562***	5.403***	9.633***	9.419***	9.660***
	[40.054]	[6.787]	[6.756]	[27.133]	[6.807]	[6.654]	[6.835]
Both(EY)	8.074***	8.714***	7.019***	8.080***	7.659***	6.551***	7.888***
	[5.705]	[6.157]	[4.956]	[5.706]	[5.411]	[4.616]	[5.569]
Both(KPMG)	9.558***	8.889***	9.281***	5.792***	9.903***	8.818***	8.467***
	[6.754]	[6.279]	[6.554]	[19.568]	[6.994]	[6.215]	[5.975]
Both(PwC)	9.718***	9.657***	9.667***	9.989***	9.020***	9.701***	9.549***
	[6.869]	[6.826]	[6.833]	[7.054]	[6.370]	[6.862]	[6.756]
Constant	0.118***	0.229***	-0.591***	-0.857***	-0.742***	-1.360***	-1.201***
	[34.375]	[66.809]	[-170.053]	[-236.191]	[-208.533]	[-332.555]	[-306.790]
Observations	372,457	372,457	372,457	372,457	372,457	372,457	372,457



Panel C-3: Univariate effect of the same audit partner on adopting audit work in response to specific RMM topics

			Dependent varia	ble = Same(SpecT	Copic_AuditWork)	
	Impair	Rev	Prov	Tax	Val	Pension	AcqDis
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Same(AuditPartner)	6.051*** #	6.010***	5.899***	6.093***	6.337***	6.163*** #	6.246***
	[4.282]	[4.243]	[4.161]	[4.294]	[4.471]	[4.345]	[4.405]
Constant	0.269***	0.361***	-0.506***	-0.776***	-0.654***	-1.301***	-1.139***
	[81.183]	[108.390]	[-149.521]	[-219.915]	[-189.368]	[-325.667]	[-297.812]
Observations	372,457	372,457	372,457	372,457	372,457	372,457	372,457

Panel C-4: Univariate effect of the specific Big 4 audit partners on adopting audit work in response to specific RMM topics

			Dependent varia	ble = Same(SpecT	opic_AuditWork)	
	Impair	Rev	Prov	Tax	Val	Pension	AcqDis
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Both(DeloittePartner)	5.156*** #	5.057***	5.001***	4.672***	5.607***	5.110***	5.457***
	[3.643]	[3.566]	[3.511]	[3.267]	[3.947]	[3.572]	[3.833]
Both(EYPartner)	3.400** #	4.155***	1.606	3.489**	3.881***	3.249**	4.085***
	[2.371]	[2.918]	[0.983]	[2.386]	[2.686]	[2.148]	[2.815]
Both(KPMGPartner)	4.711*** #	4.010***	4.122***	4.821***	5.051***	3.703**	3.973***
	[3.317]	[2.817]	[2.872]	[3.378]	[3.548]	[2.505]	[2.729]
Both(PwCPartner)	4.652*** #	4.783***	5.040***	5.219***	4.417***	5.445***	5.185***
	[3.278]	[3.370]	[3.544]	[3.672]	[3.087]	[3.823]	[3.631]
Constant	0.269***	0.361***	-0.506***	-0.776***	-0.654***	-1.301***	-1.139***
	[81.191]	[108.405]	[-149.521]	[-219.915]	[-189.363]	[-325.662]	[-297.813]
Observations	372,457	372,457	372,457	372,457	372,457	372,457	372,457

^{*,**,***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise.



[#] Denotes convergence is not achieved.

See Appendix B for all variable descriptions.

Panel C-1 (C-3) presents the Firth logistic regression results of the univariate effect of the same auditor (audit partner) on the adoption of audit work in response to specific RMM topics, while Panel C-2 (C-4) presents the Firth logistic regression results of the univariate effect of the specific Big 4 auditors (audit partners) on the adoption of audit work in response to specific RMM topics from the following model: $\Pr[Same(SpecTopic_AuditWork)] = \alpha + \beta_1 Both(Deloitte) + \beta_2 Both(EY) + \beta_3 Both(EY) + \beta_4 Both(PwC) + \varepsilon$ (also at partner level).

Panel D-1: Univariate effect of the same auditor on adopting various audit work in response to impairment

	Dependent variable = Same(SpecTopic_SpecAuditWork)												
	Assess judgment	Sensitivity	CF project	Ext data	Historical	Disclosure	Expert	Standards	Mgt discuss	Controls	Breakeven	Samples	Policies
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Same(Auditor)	6.062***	2.178***	2.115***	2.335***	1.829***	1.918***	1.700***	1.300***	1.239***	1.565***	4.964***	1.318***	1.321***
	[8.045]	[24.284]	[33.732]	[33.911]	[30.479]	[23.036]	[28.076]	[22.401]	[17.054]	[15.323]	[6.756]	[7.256]	[5.905]
Constant	-0.989***	-1.559***	-1.646***	-1.646***	-2.060***	-2.499***	-2.522***	-4.152***	-4.949***	-4.811***	-9.799***	-6.436***	-8.453***
	[-18.829]	[-26.622]	[-21.329]	[-18.033]	[-21.026]	[-15.164]	[-13.589]	[-24.757]	[-24.918]	[-20.728]	[-13.791]	[-32.712]	[-23.732]
Observations	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457

Panel D-2: Univariate effect of the same auditor on adopting various audit work in response to revenue recognition

	Dependent variable = Same(SpecTopic_SpecAuditWork)												
	Samples	Contracts	Manual controls	Analytic	Assess judgment	Policies	Standards	JE	Ext data	Mgt discuss	IT controls	Disclosure	Reconcile
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Same(Auditor)	2.446***	1.647***	1.633***	1.476***	1.434***	1.119***	1.182***	2.588***	1.460***	1.388***	1.851***	2.846***	1.501***
	[10.569]	[13.706]	[17.413]	[11.773]	[12.906]	[17.124]	[18.162]	[7.826]	[15.801]	[17.831]	[11.057]	[22.463]	[10.415]
Constant	-1.212***	-2.055***	-2.067***	-2.444***	-3.082***	-3.568***	-3.710***	-4.352***	-3.841***	-4.432***	-4.405***	-5.298***	-4.705***
	[-24.870]	[-29.059]	[-36.921]	[-28.890]	[-28.730]	[-41.710]	[-28.657]	[-31.763]	[-19.266]	[-15.936]	[-37.852]	[-26.924]	[-25.595]
Observations	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457

Panel D-3: Univariate effect of the same auditor on adopting various audit work in response to provisioning

				D	ependent va	riable = Same	(SpecTopic_S		k)			
	Assess judgment	Historical	Ext data	Disclosure	Samples	Mgt discuss	Controls	Contracts	Policies	Standards	Expert	Field visit/ stock take
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Same(Auditor)	6.365***	2.705***	2.784***	3.642***	2.660***	2.509***	2.598***	2.976***	2.517***	2.306***	2.567***	2.954***
	[28.721]	[37.812]	[30.599]	[15.244]	[33.450]	[28.406]	[32.852]	[23.218]	[28.340]	[16.795]	[27.067]	[10.120]
Constant	-2.324***	-3.495***	-3.589***	-4.876***	-4.460***	-4.711***	-4.563***	-5.887***	-6.164***	-6.245***	-5.879***	-7.921***
	[-31.156]	[-31.029]	[-29.828]	[-27.917]	[-23.765]	[-37.228]	[-35.818]	[-29.825]	[-37.011]	[-25.720]	[-16.082]	[-18.742]
Observations	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457



Panel D-4: Univariate effect of the same auditor on adopting various audit work in response to taxation

			Depende	ent variable = Sam	e(SpecTopic_SpecA	uditWork)		
	Assess judgment	Expert	Ext data	Disclosure	Mgt discuss	Transfer pricing	Standards	Controls
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Same(Auditor)	6.809***	3.398***	3.313***	3.124***	2.840***	2.681***	2.685***	2.209***
	[10.182]	[31.095]	[30.212]	[23.279]	[20.121]	[17.741]	[26.932]	[21.626]
Constant	-2.596***	-3.325***	-3.369***	-4.406***	-6.121***	-6.549***	-6.436***	-7.249***
	[-17.195]	[-41.354]	[-17.725]	[-42.971]	[-41.521]	[-32.299]	[-34.617]	[-15.331]
Observations	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457

Panel D-5: Univariate effect of the same auditor on adopting various audit work in response to valuation

	Dependent variable = Same(SpecTopic_SpecAuditWork)												
	Assess judgment	Ext data	Historical	Disclosure	Controls	Analytic	Expert	Mgt discuss	CF project	Field visit/ stock take	Policies	Standards	Portfolio
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Same(Auditor)	6.802***	2.971***	2.803***	3.876***	2.412***	2.268***	2.620***	2.167***	2.619***	2.186***	2.368***	2.417***	2.436***
	[9.198]	[33.924]	[25.053]	[15.773]	[26.064]	[33.554]	[37.688]	[24.272]	[25.291]	[24.454]	[24.268]	[15.168]	[13.798]
Constant	-2.215***	-2.930***	-4.235***	-4.630***	-4.300***	-4.884***	-4.452***	-4.918***	-5.875***	-6.028***	-6.627***	-5.490***	-6.376***
	[-28.726]	[-31.068]	[-30.804]	[-25.521]	[-27.621]	[-41.799]	[-26.864]	[-22.434]	[-33.561]	[-34.803]	[-30.534]	[-22.144]	[-31.287]
Observations	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457

Panel D-6: Univariate effect of the same auditor on adopting various audit work in response to pension

	Assess	Dependent variable = Same(SpecTopic_SpecAuditWork) Assess 3rd parties												
	judgment	Benchmark	Expert	Disclosure	Ext confirm	valuation	Standards	Controls	Mgt discuss	Admin controls				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)				
Same(Auditor)	10.15***	5.145***	4.304***	4.126***	3.542***	2.882***	3.282***	3.381***	3.647***	3.276***				
	[10.416]	[17.963]	[23.129]	[17.620]	[21.334]	[12.211]	[16.376]	[19.048]	[26.649]	[5.828]				
Constant	-3.321***	-3.617***	-3.904***	-5.491***	-6.124***	-6.358***	-6.537***	-7.715***	-8.525***	-11.72***				
	[-33.691]	[-35.498]	[-31.999]	[-34.300]	[-25.437]	[-41.243]	[-36.333]	[-30.108]	[-28.111]	[-23.458]				
Observations	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457				



Panel D-7: Univariate effect of the same auditor on adopting various audit work in response to acquisition and disposal

		Dependent variable = Same(SpecTopic_SpecAuditWork)											
	Val model	Ext data	Expert	P&S agreement	Disclosure	Standards	CF project	Mgt discuss	Controls	Reconcile	Field visit/ Stock take		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)		
Same(Auditor)	5.383***	3.366***	3.352***	3.527***	3.244***	3.265***	3.403***	3.232***	3.683***	3.923***	3.898***		
	[20.994]	[22.959]	[16.185]	[17.453]	[17.767]	[18.910]	[37.410]	[12.922]	[26.625]	[10.321]	[11.861]		
Constant	-3.139***	-4.552***	-4.779***	-4.204***	-4.619***	-4.547***	-6.076***	-6.725***	-7.795***	-8.335***	-10.73***		
	[-18.701]	[-17.573]	[-17.459]	[-21.663]	[-22.659]	[-17.652]	[-16.317]	[-32.309]	[-32.637]	[-17.408]	[-16.393]		
Observations	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457		

Panel D-8: Univariate effect of the specific Big 4 auditors on adopting various audit work in response to impairment

	Dependent variable = Same(SpecTopic_SpecAuditWork) Assess CF Ext Mgt												
	Assess judgment	Sensitivity	CF project	Ext data	Historical	Disclosure	Expert	Standards	Mgt discuss	Controls	Breakeven	Samples	Policies
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Both(Deloitte)	5.868***	1.367***	1.674***	2.215***	1.766***	0.672***	2.437***	1.365***	1.231***	2.223***	-	0.233	1.558***
	[6.283]	[8.509]	[11.149]	[13.145]	[10.670]	[3.814]	[13.416]	[7.781]	[7.893]	[8.200]		[0.661]	[2.642]
Both(EY)	5.100***	2.171***	1.798***	0.967**	1.007***	1.629***	2.857***	3.253***	2.281***	1.661***	-	2.087***	0.958
	[4.827]	[20.295]	[7.299]	[2.058]	[4.694]	[10.173]	[10.470]	[17.850]	[6.756]	[6.657]		[7.337]	[1.478]
Both(KPMG)	-	3.007***	2.552***	3.215***	1.869***	4.533***	1.596***	0.495**	0.166	1.053***	6.318***	-0.147	-
		[8.511]	[14.845]	[13.387]	[8.593]	[35.394]	[10.269]	[1.980]	[0.679]	[3.871]	[8.802]	[-0.321]	
Both(PwC)	5.790***	2.635***	2.380***	2.172***	2.010***	1.001***	-0.160	0.698**	1.450***	0.382	-	2.110***	1.798***
	[6.028]	[18.972]	[14.359]	[20.889]	[14.546]	[4.744]	[-0.456]	[2.382]	[6.710]	[1.607]		[8.232]	[4.733]
Constant	-0.988***	-1.558***	-1.645***	-1.646***	-2.060***	-2.499***	-2.520***	-4.152***	-4.948***	-4.811***	-9.800***	-6.434***	-8.453***
	[-18.822]	[-26.647]	[-21.307]	[-18.014]	[-20.979]	[-15.182]	[-13.582]	[-24.797]	[-24.863]	[-20.751]	[-13.791]	[-32.689]	[-23.735]
Observations	364,513	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	350,449	372,457	364,513



Panel D-9: Univariate effect of the specific Big 4 auditors on adopting various audit work in response to revenue recognition

					Depende	ent variable :	= Same(SpecT	opic_SpecA	uditWork)				
	Samples	Contracts	Manual controls	Analytic	Assess judgment	Policies	Standards	JE	Ext data	Mgt discuss	IT controls	Disclosure	Reconcile
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Both(Deloitte)	2.364***	1.497***	1.530***	1.788***	1.334***	1.160***	1.241***	-1.837***	1.375***	1.459***	1.182***	-3.144***	0.412
	[19.185]	[11.703]	[12.182]	[14.469]	[9.242]	[7.346]	[7.183]	[-4.741]	[8.555]	[7.622]	[6.080]	[-4.587]	[1.557]
Both(EY)	2.900***	1.480***	2.479***	2.522***	0.922***	1.612***	2.205***	3.526***	0.129	1.543***	0.600**	1.879***	0.0707
	[15.129]	[8.732]	[20.678]	[18.853]	[4.620]	[8.517]	[12.006]	[21.622]	[0.485]	[6.541]	[2.064]	[8.120]	[0.213]
Both(KPMG)	2.410***	2.114***	1.951***	1.770***	2.008***	1.100***	1.341***	-0.972**	1.884***	2.188***	0.905***	5.122***	1.189***
	[15.079]	[10.772]	[11.935]	[12.756]	[12.221]	[5.376]	[7.263]	[-2.305]	[10.506]	[9.956]	[3.198]	[29.805]	[4.200]
Both(PwC)	2.364***	1.628***	1.229***	0.130	1.390***	0.625***	-0.500*	3.461***	1.622***	0.412*	2.638***	-2.101***	2.221***
	[20.319]	[14.761]	[10.293]	[0.834]	[10.509]	[3.298]	[-1.949]	[23.835]	[11.342]	[1.726]	[16.493]	[-4.317]	[13.585]
Constant	-1.209***	-2.053***	-2.066***	-2.443***	-3.081***	-3.558***	-3.700***	-4.352***	-3.841***	-4.433***	-4.406***	-5.298***	-4.697***
	[-19.756]	[-29.339]	[-30.015]	[-32.841]	[-35.214]	[-34.898]	[-35.703]	[-37.933]	[-38.588]	[-35.760]	[-34.707]	[-37.404]	[-36.665]
Observations	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457

Panel D-10: Univariate effect of the specific Big 4 auditors on adopting various audit work in response to provisioning

	Dependent variable = Same(SpecTopic_SpecAuditWork)											
	Assess judgment	Historical	Ext data	Disclosure	Samples	Mgt discuss	Controls	Contracts	Policies	Standards	Expert	Field visit/ stock take
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Both(Deloitte)	6.053***	2.582***	2.304***	-3.398***	3.269***	1.813***	3.020***	2.311***	2.317***	1.412***	2.933***	3.941***
	[57.455]	[15.897]	[14.180]	[-3.436]	[20.342]	[8.474]	[17.635]	[8.686]	[9.121]	[4.438]	[12.553]	[10.488]
Both(EY)	4.666***	1.900***	3.904***	3.002***	1.988***	3.664***	2.261***	1.264***	0.437	4.055***	3.495***	-
	[16.653]	[6.166]	[13.098]	[8.358]	[5.056]	[12.852]	[5.578]	[2.657]	[0.466]	[11.015]	[10.917]	
Both(KPMG)	6.638***	3.039***	3.007***	6.163***	1.848***	3.016***	2.735***	-0.0229	2.582***	3.056***	3.025***	-0.0698
	[56.992]	[17.750]	[15.555]	[24.240]	[8.933]	[14.812]	[13.585]	[-0.045]	[8.235]	[10.803]	[10.983]	[-0.077]
Both(PwC)	6.957***	2.610***	2.929***	2.071***	2.412***	2.440***	1.936***	3.791***	2.688***	1.611***	0.682*	1.487***
	[52.013]	[15.332]	[20.655]	[10.381]	[12.783]	[13.450]	[9.514]	[21.029]	[10.317]	[5.595]	[1.788]	[2.964]
Constant	-2.324***	-3.494***	-3.589***	-4.876***	-4.459***	-4.712***	-4.563***	-5.886***	-6.164***	-6.245***	-5.879***	-7.921***
	[-32.464]	[-36.135]	[-37.214]	[-38.419]	[-38.051]	[-37.055]	[-36.350]	[-36.430]	[-33.968]	[-35.468]	[-34.821]	[-24.161]
Observations	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,149



Panel D-11: Univariate effect of the specific Big 4 auditors on adopting various audit work in response to taxation

			Depende	ent variable = Sam	e(SpecTopic_SpecA	uditWork)		
	Assess judgment	Expert	Ext data	Disclosure	Mgt discuss	Transfer pricing	Standards	Controls
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Both(Deloitte)	6.635***	4.792***	3.687***	1.349***	2.104***	1.898***	1.132***	2.165***
	[11.152]	[27.673]	[20.439]	[4.848]	[6.084]	[5.335]	[2.691]	[5.441]
Both(EY)	-	3.302***	2.258***	3.025***	2.567***	3.660***	3.285***	2.930***
		[14.471]	[7.220]	[13.723]	[6.346]	[9.805]	[9.729]	[5.862]
Both(KPMG)	6.666***	5.354***	3.340***	6.387***	0.532	1.737***	2.910***	2.919***
	[16.047]	[21.757]	[15.982]	[26.734]	[1.039]	[4.199]	[8.816]	[6.589]
Both(PwC)	6.810***	2.172***	3.247***	1.955***	3.341***	2.911***	2.883***	1.454***
	[13.399]	[14.008]	[19.974]	[9.572]	[13.856]	[10.827]	[11.163]	[2.958]
Constant	-2.596***	-3.325***	-3.368***	-4.406***	-6.119***	-6.547***	-6.436***	-7.245***
	[-32.242]	[-36.580]	[-35.600]	[-37.165]	[-34.004]	[-31.711]	[-33.512]	[-29.866]
Observations	371,775	372,457	372,457	372,457	372,457	372,457	372,457	372,457

Panel D-12: Univariate effect of the specific Big 4 auditors on adopting various audit work in response to valuation

					Dependen	t variable =	Same(Spec	Topic_SpecA	uditWork)				
	Assess judgment	Ext data	Historical	Disclosure	Controls	Analytic	Expert	Mgt discuss	CF project	Field visit/ stock take	Policies	Standards	Portfolio
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Both(Deloitte)	-	3.131***	2.230***	0.799**	2.503***	2.359***	2.866***	2.284***	1.791***	2.234***	2.179***	1.659***	3.077***
		[17.743]	[11.798]	[2.547]	[12.516]	[11.418]	[16.792]	[11.107]	[5.607]	[7.870]	[6.662]	[6.327]	[10.931]
Both(EY)	5.843***	2.454***	1.197***	2.469***	3.571***	3.476***	3.927***	3.044***	1.750***	2.610***	0.407	3.119***	1.960***
	[6.331]	[9.216]	[3.640]	[7.806]	[17.476]	[14.079]	[12.119]	[11.656]	[3.417]	[5.964]	[0.455]	[9.841]	[3.682]
Both(KPMG)	6.695***	2.845***	3.287***	5.472***	2.388***	1.874***	2.549***	1.482***	3.092***	2.114***	2.000***	2.448***	1.532***
	[57.357]	[17.537]	[21.357]	[37.792]	[11.980]	[9.399]	[13.767]	[5.469]	[14.153]	[7.907]	[5.799]	[10.765]	[3.646]
Both(PwC)	6.110***	3.085***	2.612***	0.901***	1.610***	2.377***	1.333***	2.702***	2.437***	2.074***	3.204***	2.969***	2.398***
	[6.316]	[14.783]	[14.038]	[3.150]	[5.953]	[12.602]	[5.018]	[12.540]	[9.451]	[6.139]	[10.415]	[13.771]	[7.100]
Constant	-2.213***	-2.928***	-4.235***	-4.629***	-4.297***	-4.882***	-4.451***	-4.917***	-5.875***	-6.025***	-6.625***	-5.489***	-6.377***
	[-28.461]	[-32.586]	[-37.513]	[-35.961]	[-34.469]	[-37.520]	[-36.591]	[-36.384]	[-35.815]	[-33.017]	[-30.865]	[-36.938]	[-30.641]
Observations	368,833	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457



Panel D-13: Univariate effect of the specific Big 4 auditors on adopting various audit work in response to pension

				Dependent v	ariable = Same(S	pecTopic_SpecA	uditWork)			
	Assess			-	•	3 rd parties	-			Admin
	judgment	Benchmark	Expert	Disclosure	Ext confirm	valuation	Standards	Controls	Mgt discuss	controls
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Both(Deloitte)	=	5.092***	5.875*** #	2.296***	2.905***	2.960***	3.693***	2.926***	4.221***	-
		[21.842]	[75.435]	[6.628]	[8.664]	[11.155]	[11.876]	[6.566]	[12.750]	
Both(EY)	6.375***	2.990***	512,275*** #	4.377***	4.049***	2.584***	6.453***	-	-	-
	[8.927]	[6.902]	[275.569]	[11.306]	[10.529]	[4.045]	[20.291]			
Both(KPMG)	-	6.531***	6.747*** #	8.617***	2.433***	0.707	1.159*	3.930***	-	-
		[23.890]	[44.835]	[19.465]	[5.404]	[0.989]	[1.691]	[8.695]		
Both(PwC)	-	5.013***	2.744*** #	1.474***	4.015***	3.158***	2.220***	3.415***	3.525***	4.071***
		[15.972]	[52.152]	[3.760]	[17.565]	[11.560]	[5.636]	[8.326]	[7.330]	[4.881]
Constant	-3.319***	-3.616***	-3.902***	-5.491***	-6.116***	-6.357***	-6.521***	-7.715***	-8.525***	-11.72***
	[-33.038]	[-34.453]	[-329.707]	[-33.020]	[-33.304]	[-34.929]	[-32.582]	[-28.150]	[-27.206]	[-20.242]
Observations	367,934	372,457	372,457	372,457	372,457	372,457	372,457	372,368	371,512	369,937

Panel D-14: Univariate effect of the specific Big 4 auditors on adopting various audit work in response to acquisition and disposal

	Dependent variable = Same(SpecTopic_SpecAuditWork)										
				P&S				Mgt			Field visit/
	Val model	Ext data	Expert	agreement	Disclosure	Standards	CF project	discuss	Controls	Reconcile	Stock take
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Both(Deloitte)	5.221***	3.083***	3.816***	3.765***	2.505***	3.018***	2.396***	2.808***	4.433***	2.653***	-
	[17.198]	[10.245]	[17.463]	[16.048]	[8.829]	[10.652]	[8.630]	[10.556]	[29.698]	[66.122]	
Both(EY)	6.907***	2.987***	3.314***	3.094***	3.615***	4.082***	2.187***	3.411***	3.203***	-	4.747***
	[5.879]	[11.253]	[9.364]	[11.538]	[28.572]	[15.683]	[134.767]	[8.740]	[16.701]		[18.026]
Both(KPMG)	6.581***	4.417***	3.373***	3.007***	5.813***	3.107***	3.175***	2.819***	-	-	-
	[7.621]	[15.861]	[20.560]	[7.516]	[25.783]	[8.563]	[8.871]	[7.147]			
Both(PwC)	5.177***	3.295***	2.581***	3.468***	2.468***	3.381***	4.105***	3.626***	2.090***	4.787***	4.691***
	[15.236]	[16.888]	[8.754]	[13.936]	[10.731]	[10.760]	[17.182]	[8.357]	[3.181]	[11.607]	[12.554]
Constant	-3.138***	-4.552***	-4.777***	-4.202***	-4.618***	-4.547***	-6.076***	-6.725***	-7.795***	-8.335***	-10.73***
	[-18.695]	[-17.573]	[-17.426]	[-21.669]	[-22.658]	[-17.648]	[-16.317]	[-32.310]	[-32.639]	[-17.408]	[-16.394]
Observations	372,457	372,457	372,457	372,457	372,457	372,457	372,457	372,457	371,747	371,348	369,390

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise.

Panels D-1 to D-7 present the logistic regression results of the univariate effect of the same auditor on the adoption of various audit work categories in response to specific RMM topics, while Panels D-8 to D-14 present the logistic regression results of the univariate effect of the specific Big 4 auditors on the adoption of various audit work categories in response to specific RMM topics from the following model: $\Pr[Same(SpecTopic_SpecAuditWork)] = \alpha + \beta_1 Both(Deloitte) + \beta_2 Both(EY) + \beta_3 Both(EYMG) + \beta_4 Both(PWC) + \varepsilon$.



[#] Denotes convergence is not achieved.

Standard errors are clustered at year and firm level. See Appendix B for all variable descriptions.

Table 18 Effect of prior expert's audit work choice on RMM audit work choice

 $Pr[Follow(AuditWork)] = \alpha + \beta_1 PriorIndExp + Controls + FE + \varepsilon$

Panel A: Descriptive statistics

Panel A: Descriptive statistics	<u> </u>							
Variable	N	Mean	Std. Dev.	Min	Q1	Median	Q 3	Max
Follow(AuditWork)	66,827	0.145	0.352	0	0	0	0	1
PriorIndExp	66,827	0.333	0.471	0	0	0	1	1
Diff(Size)	66,827	1.881	1.546	0.029	0.723	1.530	2.641	8.854
Diff(Lev)	66,827	0.255	0.242	0.004	0.095	0.198	0.341	1.506
Diff(ROA)	66,827	0.107	0.226	0.001	0.025	0.056	0.108	1.796
Diff(ExtraOrdinaryItem)	66,827	0.265	0.442	-	-	-	1.000	1.000
Diff(lnAge)	66,827	1.241	1.147	0.013	0.416	0.910	1.688	5.837
Loss	66,827	0.156	0.362	0	0	0	0	1
GC	66,827	0.011	0.106	0	0	0	0	1
MA_num	66,827	0.622	1.144	-	-	-	1.000	6.000
NewEquity_num	66,827	0.191	0.563	-	-	-	-	3.000
IPO	66,827	0.008	0.091	0	0	0	0	1
Busy	66,827	0.479	0.500	0	0	0	1	1
NewAuditor	66,827	0.077	0.266	0	0	0	0	1
Same(Auditor)	66,827	0.236	0.425	0	0	0	0	1
Both(Big4)	66,827	0.858	0.349	0	1	1	1	1
Diff(AuditFirmIndExp)	66,827	0.103	0.090	0.002	0.032	0.077	0.158	0.348
Diff(lnAbAuditFee)	66,827	0.621	0.476	0.011	0.244	0.518	0.895	2.245
Diff(lnReportLag)	66,827	0.265	0.215	-	0.097	0.210	0.376	0.935
Follow(Impair_AuditWork)	66,827	0.073	0.259	0	0	0	0	1
Follow(Rev_AuditWork)	66,827	0.047	0.212	0	0	0	0	1
Follow(Prov_AuditWork)	66,827	0.025	0.156	0	0	0	0	1
Follow(Tax_AuditWork)	66,827	0.014	0.118	0	0	0	0	1
Follow(Val_AuditWork)	66,827	0.009	0.094	0	0	0	0	1
Follow(Pension_AuditWork)	66,827	0.009	0.095	0	0	0	0	1
Follow(AcqDis_AuditWork)	66,827	0.015	0.122	0	0	0	0	1

Panel A reports the descriptive statistics for testing the effect of prior expert's audit work choice on RMM audit work choice. Sample includes pairwise audit reports of the same industry firms in prior and current years (i.e. year t and year t-1).



Panel B: Regression model

ranei di Regi ession modei	Dependent variable = Follow(AuditWork)
PriorIndExp	(1) 11.14***
	[7.887]
Diff(Size)	-0.00723
<i>3</i> 7 (9	[-0.683]
Diff(Lev)	-0.279***
	[-4.123]
Diff(ROA)	-0.551***
	[-4.573]
Diff(ExtraOrdinaryItem)	0.0768**
	[2.412]
Diff(lnAge)	-0.0485***
	[-3.635]
Loss	0.312***
	[7.519]
GC	-0.489***
	[-2.971]
MA_num	0.150***
	[11.708]
NewEquity_num	-0.115***
	[-4.493]
IPO	1.890***
	[9.751]
Busy	-0.526***
	[-17.657]
NewAuditor	0.957***
	[17.560]
Same(Auditor)	0.114***
	[3.218]
Both(Big4)	1.452***
	[19.294]
Diff(AuditFirmIndExp)	4.839***
D. (2007 A.L. A. T.)	[20.823]
Diff(lnAbAuditFee)	-0.146***
D.(000 D	[-4.767]
Diff(lnReportLag)	-0.160**
	[-2.358]
Constant	-13.47***
	[-9.304]
Industry FE	Yes
Observations	66,827
Obsci vadolis	00,047

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Industry fixed effects are included in the model but omitted for brevity. See Appendix B for all variable descriptions. Panel B presents the Firth logistic regression result of the effect of prior expert's audit work choice on following RMM audit work choice. Column 1 reports result of the logistic regression model as stated above.



Panel C: Univariate effect on following audit work in response to specific RMM topics

		I	Dependent varial	ole = Follow(Spe	cTopic_AuditWo	rk)	
	Impair	Rev	Prov	Tax	Val	Pension	AcqDis
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
PriorIndExp	10.34***	10.11***	9.152***	8.532***	8.764***	8.036***	8.786***
-	[7.384]	[6.914]	[6.750]	[5.961]	[6.234]	[5.656]	[6.137]
Constant	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***
	[-8.450]	[-8.094]	[-8.723]	[-8.264]	[-8.415]	[-8.327]	[-8.262]
Observations	100,436	100,436	100,436	100,436	100,436	100,436	100,436

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise.

Panel C presents the Firth logistic regression results of the univariate effect of prior expert's audit work choice on following RMM audit work choice. Columns 1 to 7 report results of the logistic regression model as stated above.



See Appendix B for all variable descriptions.

Panel D-1: Univariate effect on following various audit work in response to impairment

		Dependent variable = Follow(SpecTopic_SpecAuditWork)											
	Assess		CF	Ext	_				Mgt				
	judgment	Sensitivity	project	data	Historical	Disclosure	Expert	Standards	discuss	Controls	Breakeven	Samples	Policies
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
PriorIndExp	9.417***	9.251***	9.133***	9.351***	8.908***	9.060***	8.537***	7.005***	5.893***	6.396***	4.057***	5.377***	2.706*
	[6.763]	[6.636]	[6.601]	[6.885]	[6.317]	[6.280]	[6.132]	[4.965]	[4.156]	[4.515]	[2.817]	[3.784]	[1.790]
Constant	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***
	[-8.495]	[-8.485]	[-8.549]	[-8.709]	[-8.389]	[-8.199]	[-8.497]	[-8.391]	[-8.365]	[-8.364]	[-8.364]	[-8.364]	[-8.362]
Observations	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436

Panel D-2: Univariate effect on following various audit work in response to revenue recognition

					Depende	nt variable =	Follow(Spec	Topic_SpecA	uditWork)				
	Samples	Contracts	Manual controls	Analytic	Assess judgment	Policies	Standards	JE	Ext data	Mgt discuss	IT controls	Disclosure	Reconcile
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
PriorIndExp	9.152***	8.654***	8.725***	8.316***	7.842***	6.805***	6.931***	6.964***	7.709***	7.443***	7.110***	6.568***	6.790***
	[6.497]	[6.146]	[6.204]	[6.069]	[5.499]	[4.801]	[4.867]	[4.924]	[5.426]	[5.249]	[5.015]	[4.631]	[4.806]
Constant	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***
	[-8.397]	[-8.401]	[-8.411]	[-8.634]	[-8.297]	[-8.355]	[-8.313]	[-8.371]	[-8.329]	[-8.346]	[-8.350]	[-8.351]	[-8.381]
Observations	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436

Panel D-3: Univariate effect on following various audit work in response to provisioning

	Assess	Dependent variable = Follow(SpecTopic_SpecAuditWork) Assess												
	judgment	Historical	Ext data	Disclosure	Samples	discuss	Controls	Contracts	Policies	Standards	Expert	stock take		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)		
PriorIndExp	8.566***	7.759***	7.687***	7.377***	6.989***	6.775***	6.735***	5.832***	5.337***	5.377***	5.079***	4.057***		
	[5.981]	[5.501]	[5.443]	[5.246]	[4.921]	[4.780]	[4.740]	[4.112]	[3.755]	[3.785]	[3.568]	[2.817]		
Constant	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***		
	[-8.259]	[-8.389]	[-8.379]	[-8.416]	[-8.336]	[-8.355]	[-8.335]	[-8.366]	[-8.364]	[-8.366]	[-8.363]	[-8.364]		
Observations	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436		



Panel D-4: Univariate effect on following various audit work in response to taxation

	Dependent variable = Follow(SpecTopic_SpecAuditWork)										
	Assess judgment	Expert	Ext data	Disclosure	Mgt discuss	Transfer pricing	Standards	Controls			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)			
PriorIndExp	8.009***	7.620***	7.459***	6.931***	4.904***	4.839***	4.936***	4.195***			
	[5.695]	[5.374]	[5.223]	[4.867]	[3.443]	[3.393]	[3.464]	[2.919]			
Constant	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***			
	[-8.414]	[-8.346]	[-8.287]	[-8.313]	[-8.367]	[-8.362]	[-8.364]	[-8.363]			
Observations	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436			

Panel D-5: Univariate effect on following various audit work in response to valuation

	Dependent variable = Follow(SpecTopic_SpecAuditWork)												
	Assess judgment	Ext data	Historical	Disclosure	Controls	Analytic	Expert	Mgt discuss	CF project	Field visit/ stock take	Policies	Standards	Portfolio
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
PriorIndExp	8.060***	7.783***	6.720***	6.518***	6.704***	6.249***	6.274***	6.313***	5.180***	4.522***	4.057***	6.106***	5.739***
	[5.731]	[5.481]	[4.767]	[4.609]	[4.739]	[4.414]	[4.430]	[4.453]	[3.642]	[3.161]	[2.817]	[4.316]	[4.043]
Constant	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***
	[-8.411]	[-8.332]	[-8.401]	[-8.376]	[-8.372]	[-8.372]	[-8.368]	[-8.358]	[-8.365]	[-8.364]	[-8.364]	[-8.380]	[-8.360]
Observations	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436

Panel D-6: Univariate effect on following various audit work in response to pension

	Dependent variable = Follow(SpecTopic_SpecAuditWork)											
	Assess judgment	Benchmark	Expert	Disclosure	Ext confirm	3 rd parties valuation	Standards	Controls	Mgt discuss			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)			
PriorIndExp	7.449***	7.428***	7.303***	6.298***	4.839***	4.316***	3.158**	3.805***	1.859			
	[5.296]	[5.262]	[5.179]	[4.446]	[3.393]	[3.009]	[2.138]	[2.629]	[1.138]			
Constant	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***			
	[-8.414]	[-8.384]	[-8.394]	[-8.365]	[-8.364]	[-8.363]	[-8.363]	[-8.363]	[-8.363]			
Observations	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436			



Panel D-7: Univariate effect on following various audit work in response to acquisition and disposal

		Dependent variable = Follow(SpecTopic_SpecAuditWork) P&S											
	Val model	Ext data	Expert	agreement	Disclosure	Standards	CF project	Mgt discuss	Controls	Reconcile			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) (9)	(9)	(10)			
PriorIndExp	8.551***	7.443***	7.081***	7.525***	7.546***	7.221***	5.316***	5.273***	4.128***	4.128***			
	[5.969]	[5.249]	[4.995]	[5.287]	[5.336]	[5.104]	[3.739]	[3.708]	[2.870]	[2.870]			
Constant	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***	-11.83***			
	[-8.257]	[-8.346]	[-8.351]	[-8.314]	[-8.368]	[-8.366]	[-8.362]	[-8.364]	[-8.365]	[-8.363]			
Observations	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436	100,436			

^{*, ***, ****} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise.

See Appendix B for all variable descriptions.

Panels D-1 to D-7 present the Firth logistic regression results of the univariate effect of prior expert's audit work choice on following various RMM audit work categories.



Table 19 Effect of prior expert's audit work choice on RMM audit work under various conditions

 $\Pr[Follow(AuditWork)] = \alpha + \beta_1 PriorIndExp + \beta_2 Condition + \boldsymbol{\beta_3} PriorIndExp * Condition + Controls + \varepsilon$

-1.401***

Panel A: Non-Big 4 auditors' tendency to follow prior expert

PriorIndExp x NonBig4 x BasicMat 0.816***

[3.321] *GT*

 PriorIndExp x GT
 0.687***

 [6.068]
 [6.068]

PriorIndExp x BDO -0.0420

[-0.376]

Controls Yes Yes Yes
Observations 22,225 22,225

Panel A presents the logistic regression results of the incremental effect of prior expert's audit work choice on following RMM audit work choice when auditors are Non-Big 4 auditors. Columns 1 to 3 report results of the logistic regression model as stated above.

(continued on next page)

Dependent variable = Follow(AuditWork)



PriorIndExp x NonBig4

NonBig4 x BasicMat

BDO

^{*,***,***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. See Appendix B for all variable descriptions.

Panel B: Auditors' tendency to follow specific prior expert

	Dependent variable = Follow(AuditWork)
	(1)
PriorIE_Deloitte	11.23***
	[7.953]
PriorIE_EY	11.36***
	[8.027]
PriorIE_KPMG	11.10***
	[7.861]
PriorIE_PwC	10.83***
	[7.664]
Controls	Yes
Observations	66,827

Chi2-test on difference between coefficients

	Chi2-test				
PriorIE_PwC < PriorIE_Deloitte	32.43***				
PriorIE_PwC < PriorIE_EY	21.24***	All: 44.78***			
PriorIE_PwC < PriorIE_KPMG	15.37***				

Panel C: Auditors' tendency to follow prior expert given specific client firm's conditions

	Depend	ent variable = Fol	low(SpecTopic_A	AuditWork)
	Rev	Impair	AcqDis	AcqDis
	(1)	(2)	(3)	(4)
PriorIndExp	-	10.00***	8.052***	-
		[7.067]	[5.690]	
PriorIndExp x LargeEarningsDiff	0.353***			
	[7.727]			
PriorIndExp x Both(MA)		0.164***	1.368***	
		[3.315]	[17.797]	
PriorIndExp x LargeSizeDiff				1.555***
				[19.041]
Controls	Yes	Yes	Yes	Yes
Observations	19,649	66,827	66,827	19,649

^{*,***,***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. See Appendix B for all variable descriptions.



Panel B presents the Firth logistic regression result of the incremental effect of prior expert's audit work choice on following RMM audit work choice when prior expert is a specific auditor. Column 1 reports result of the logistic regression model as follows: $\Pr[Follow(AuditWork)] = \alpha + \beta_1 PriorIndExp * Condition + Controls + \varepsilon.$

Panel C presents the logistic regression results of the incremental effect of prior expert's audit work choice on following RMM audit work choice when the client firm has specific condition. Columns 1 and 4 report results of the logistic regression model with standard errors clustered at year and firm level, while Columns 2 and 3 report results of the Firth logistic regression model.

Table 20 Effects of ongoing clients on new client's RMM auditing and reporting

Panel A: Descriptive statistics

Variable	N	Mean	Std. Dev.	Min	Q1	Median	Q3	Max
RMM_Sim_score	4,872	9.084	5.000	1.672	5.399	8.035	11.663	30.248
Follow(SNA_RMM_Topic)	4,872	0.062	0.241	0	0	0	0	1
Follow(SNA_AuditWork)	4,872	0.149	0.356	0	0	0	0	1
Same(NewAuditor)	4,872	0.236	0.425	0	0	0	0	1
Same(OldAuditor)	4,872	0.235	0.424	0	0	0	0	1
OtherAuditor	4,872	0.529	0.499	0	0	1	1	1
Diff(Size)	4,872	2.183	1.861	0.038	0.860	1.756	2.981	10.400
Diff(Lev)	4,872	6.846	48.398	0.004	0.094	0.196	0.327	375.115
Diff(ROA)	4,872	0.073	0.070	0.001	0.024	0.052	0.098	0.362
Diff(ExtraOrdinaryItem)	4,872	0.005	0.014	-	-	-	0.002	0.090
Diff(lnAge)	4,872	1.239	1.143	0.013	0.405	0.909	1.665	5.447
Loss	4,872	0.095	0.293	0	0	0	0	1
GC	4,872	0.013	0.115	0	0	0	0	1
MA_num	4,872	0.571	0.944	_	-	_	1.000	4.000
NewEquity_num	4,872	0.203	0.556	_	-	_	-	2.000
Busy	4,872	0.447	0.497	0	0	0	1	1
Both(Big4)	4,872	0.842	0.365	0	1	1	1	1
Diff(AuditFirmIndExp)	4,872	0.105	0.101	0.002	0.026	0.073	0.158	0.401
Diff(lnAbAuditFee)	4,872	0.622	0.479	0.012	0.236	0.523	0.901	2.400
Diff(lnRMMwordcount)	4,872	0.553	0.415	0.010	0.221	0.462	0.800	1.919
Note_Sim_score	4,872	8.885	4.863	1.463	5.485	8.333	1.342	34.011
Diff(lnReportLag)	4,872	0.283	0.222	-	0.105	0.233	0.405	0.938
Follow(SNA_RMM_Impair)	4,872	0.016	0.124	0	0	0	0	1
Follow(SNA_RMM_Rev)	4,872	0.009	0.092	0	0	0	0	1
Follow(SNA_RMM_Prov)	4,872	0.012	0.110	0	0	0	0	1
Follow(SNA_RMM_Tax)	4,872	0.005	0.073	0	0	0	0	1
Follow(SNA_RMM_Val)	4,872	0.005	0.067	0	0	0	0	1
Follow(SNA_RMM_Pension)	4,872	0.007	0.084	0	0	0	0	1
Follow(SNA_RMM_AcqDis)	4,872	0.012	0.108	0	0	0	0	1
Follow(SNA_RMM_IC)	4,872	0.001	0.035	0	0	0	0	1
Follow(SNA_RMM_ExItem)	4,872	0.000	0.020	0	0	0	0	1
Follow(SNA_RMM_CapCost)	4,872	0.003	0.052	0	0	0	0	1
Follow(SNA_RMM_Legal)	4,872	-	-	0	0	0	0	0
Follow(SNA_RMM_GC)	4,872	0.001	0.025	0	0	0	0	1
Follow(SNA_RMM_Policies)	4,872	0.001	0.025	0	0	0	0	1
Follow(SNA_RMM_FI)	4,872	0.000	0.014	0	0	0	0	1
Follow(SNA_Impair_AuditWork)	4,872	0.068	0.252	0	0	0	0	1
Follow(SNA_Rev_AuditWork)	4,872	0.058	0.233	0	0	0	0	1
Follow(SNA_Prov_AuditWork)	4,872	0.032	0.176	0	0	0	0	1
Follow(SNA_Tax_AuditWork)	4,872	0.018	0.134	0	0	0	0	1
Follow(SNA_Val_AuditWork)	4,872	0.011	0.105	0	0	0	0	1
Follow(SNA_Pension_AuditWork)	4,872	0.013	0.115	0	0	0	0	1
Follow(SNA_AcqDis_AuditWork)	4,872	0.016	0.124	0	0	0	0	1

Panel A reports the descriptive statistics for testing the effect of ongoing clients' prior RMM reporting on new client's current RMM textual similarity, RMM topic choice and audit work choice. Sample includes pairwise audit reports of the same industry firms in prior and current years (i.e. year t and year t-1) and current-year firms are restricted to have an auditor change.



Panel B: E	ffect on	textual	simi	larity
------------	----------	---------	------	--------

	Dependent variable = RMM_Sim_score
	(1)
Same(NewAuditor)	10.09***
	[5.241]
ame(OldAuditor)	7.430***
	[3.775]
therAuditor	6.986***
	[3.520]
iff(Size)	-0.215*
	[-1.980]
ff(Lev)	-0.00486
	[-1.578]
ff(ROA)	-0.636
	[-0.382]
f(ExtraOrdinaryItem)	1.810
	[0.291]
ff(lnAge)	-0.173
	[-1.509]
th(Big4)	0.218
	[0.572]
f(AuditFirmIndExp)	0.474
	[0.266]
ff(lnAbAuditFee)	-1.158***
	[-4.872]
ff(lnRMMwordcount)	-0.0686
	[-0.128]
te_Sim_score	0.306***
	[6.545]
ar FE, Industry FE, Auditor FE	Yes
bservations	4,872
-squared	0.825

F-test of difference between coefficients

	F-test	
Same(NewAuditor) > Same(OldAuditor)	85.60***	
Same(NewAuditor) > OtherAuditor	126.67***	
Same(OldAuditor) > OtherAuditor	3.74*	

^{*, ***, ****} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Year, industry and auditor fixed effects are included in the model but omitted for brevity. Standard errors are clustered at firm level. See Appendix B for all variable descriptions.



Panel B presents the regression result of the effect of ongoing clients' prior RMM wordings on new client's current RMM textual similarity. Column 1 reports result of the regression model as stated above.

Panel C: Effect on	following	DMM to	nic choico
ranei G. Enect on	IUIIUWIIIE	WIALIAI CO	DIC CHOICE

	Dependent variable = Follow(SNA_RMM_Topic)
	(1)
Same(NewAuditor)	7.474***
	[5.149]
Diff(Size)	-0.143**
	[-2.407]
Diff(Lev)	0.0190***
	[2.769]
Diff(ROA)	2.025*
	[1.762]
Diff(ExtraOrdinaryItem)	10.28*
	[1.719]
Diff(lnAge)	-0.0390
	[-0.572]
Loss	0.484
	[1.297]
GC	0.337
	[0.155]
MA_num	0.480***
_	[5.423]
NewEquity_num	-1.140***
1 3-	[-5.809]
Busy	-0.530***
	[-3.162]
Both(Big4)	-0.276
	[-0.284]
Diff(AuditFirmIndExp)	-6.539
	[-1.424]
Diff(lnAbAuditFee)	-0.395**
,,,	[-2.484]
Diff(lnReportLag)	-0.797**
	[-2.142]
Constant	0.347
	[0.167]
	[0.10,]
industry FE	Yes
Observations	4,872

^{*, ***, ****} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Industry fixed effects are included in the model but omitted for brevity. See Appendix B for all variable descriptions. Panel C presents the Firth logistic regression result of the effect of ongoing clients' prior RMM topic choice on new client's following RMM topic choice. Column 1 reports result of the logistic regression model as stated above.



Panel D: Univariate effect on following specific RMM topic

					Depend	lent variable	= Follow(SN	NA_RMM_Spe	есТоріс)				
	Impair	Rev	Prov	Tax	Val	Pension	AcqDis	IC	ExItem	CapCost	GC	Policies	FI
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Same(NewAuditor)	6.645***	6.596***	6.012***	5.547***	5.825***	5.547***	6.373***	5.464***	4.019***	4.484***	3.128**	4.019***	3.380**
	[4.687]	[4.651]	[4.233]	[3.896]	[4.098]	[3.896]	[4.492]	[3.836]	[2.761]	[3.113]	[2.069]	[2.761]	[2.267]
Constant	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***
	[-6.592]	[-6.591]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]
Observations	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise.

Panel D presents the Firth logistic regression results of the univariate effect of ongoing clients' prior RMM topic choice on new client's following specific RMM topic choice. Columns 1 to 13 report results of the logistic regression model as stated above.



See Appendix B for all variable descriptions.

Panel E: Effect on following RMM audit work Dep	pendent variable = Follow(SNA_AuditWork)
•	(1)
Same(NewAuditor)	10.72***
•	[5.550]
Diff(Size)	0.0333
	[0.628]
Diff(Lev)	0.0119**
	[2.025]
Diff(ROA)	-2.446**
	[-2.274]
Diff(ExtraOrdinaryItem)	16.09**
	[2.245]
Diff(lnAge)	-0.144**
3.6	[-2.358]
Loss	-0.317
	[-0.952]
GC	-1.516
	[-0.730]
MA_num	-0.104
_	[-1.301]
NewEquity_num	-0.669***
	[-5.053]
Busy	0.0364
•	[0.232]
Both(Big4)	-2.205
	[-1.507]
Diff(AuditFirmIndExp)	2.521
	[0.651]
Diff(lnAbAuditFee)	-0.649***
,	[-4.643]
Diff(lnReportLag)	-0.644**
	[-1.964]
Constant	-0.173
	[-0.073]
Industry FE	Yes
Observations	4,872

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Industry fixed effects are included in the model but omitted for brevity. See Appendix B for all variable descriptions. Panel E presents the Firth logistic regression result of the effect of ongoing clients' prior audit work choice on new client's following RMM audit work choice. Column 1 reports result of the logistic regression model as stated above.



Panel F: Univariate effect on following audit work in response to specific RMM topics

	Dependent variable = Follow(SNA_SpecTopic_AuditWork)							
	Impair	Rev	Prov	Tax	Val	Pension	AcqDis	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Same(NewAuditor)	8.167***	8.177***	7.070***	6.674***	7.104***	6.229***	6.645***	
	[5.771]	[5.777]	[4.990]	[4.708]	[5.015]	[4.389]	[4.688]	
Constant	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	
	[-6.593]	[-6.592]	[-6.591]	[-6.592]	[-6.593]	[-6.592]	[-6.594]	
Observations	7,314	7,314	7,314	7,314	7,314	7,314	7,314	

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise.

See Appendix B for all variable descriptions.

Panel F presents the Firth logistic regression results of the univariate effect of ongoing clients' prior audit work choice on new client's following RMM audit work choice. Columns 1 to 7 report results of the logistic regression model as stated above.



Panel G-1: Univariate effect on following various audit work in response to impairment

				I	Dependent va	riable = Follo	ow(SNA_Spe	cTopic_Spec	AuditWork)				
	Assess judgment	Sensitivity	CF project	Ext data	Historical	Disclosure	Expert	Standards	Mgt discuss	Controls	Breakeven	Samples	Policies
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Same(NewAuditor)	6.645***	6.645***	6.433***	6.912***	6.616***	6.456***	6.683***	5.672***	4.623***	5.275***	3.380**	4.484***	2.280
	[4.688]	[4.688]	[4.535]	[4.877]	[4.667]	[4.552]	[4.715]	[3.987]	[3.217]	[3.698]	[2.267]	[3.113]	[1.396]
Constant	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***
	[-6.593]	[-6.594]	[-6.592]	[-6.591]	[-6.593]	[-6.592]	[-6.593]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]
Observations	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314

Panel G-2: Univariate effect on following various audit work in response to revenue recognition

		Dependent variable = Follow(SNA_SpecTopic_SpecAuditWork)											
	Samples	Contracts	Manual controls	Analytic	Assess judgment	Policies	Standards	JE	Ext data	Mgt discuss	IT controls	Disclosure	Reconcile
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Same(NewAuditor)	6.790***	6.606***	6.635***	5.977***	5.435***	5.087***	4.802***	5.740***	5.885***	5.464***	5.464***	5.000***	4.687***
	[4.790]	[4.658]	[4.681]	[4.208]	[3.815]	[3.560]	[3.350]	[4.037]	[4.141]	[3.836]	[3.836]	[3.496]	[3.264]
Constant	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***
	[-6.591]	[-6.591]	[-6.593]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]
Observations	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314

Panel G-3: Univariate effect on following various audit work in response to provisioning

	Dependent variable = Follow(SNA_SpecTopic_SpecAuditWork) Assess Mgt										Field visit/	
	judgment	Historical	Ext data	Disclosure	Samples	discuss	Controls	Contracts	Policies	Standards	Expert	stock take
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Same(NewAuditor)	5.977***	6.110***	5.000***	3.749**	5.672***	4.906***	4.484***	4.954***	3.128**	3.128**	3.380**	2.280
	[4.208]	[4.304]	[3.496]	[2.554]	[3.987]	[3.427]	[3.113]	[3.462]	[2.069]	[2.069]	[2.267]	[1.396]
Constant	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***
	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]
Observations	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314



Panel G-4: Univariate effect on following various audit work in response to taxation

		Dependent variable = Follow(SNA_SpecTopic_SpecAuditWork)										
	Assess judgment	Expert	Ext data	Disclosure	Mgt discuss	Transfer pricing	Standards					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)					
Same(NewAuditor)	5.547***	4.556***	5.885***	5.309***	4.130***	3.380**	3.128**					
	[3.896]	[3.167]	[4.141]	[3.723]	[2.846]	[2.267]	[2.069]					
Constant	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***					
	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]					
Observations	7,314	7,314	7,314	7,314	7,314	7,314	7,314					

Panel G-5: Univariate effect on following various audit work in response to valuation

		Dependent variable = Follow(SNA_SpecTopic_SpecAuditWork)											
	Assess judgment	Ext data	Historical	Disclosure	Controls	Analytic	Expert	Mgt discuss	CF project	Field visit/ stock take	Policies	Standards	Portfolio
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Same(NewAuditor)	5.624***	4.855***	5.166***	6.094***	5.342***	4.407***	5.240***	4.954***	3.749**	3.893***	2.280	5.240***	4.556***
	[3.952]	[3.389]	[3.618]	[4.293]	[3.747]	[3.055]	[3.673]	[3.463]	[2.554]	[2.665]	[1.396]	[3.673]	[3.167]
Constant	-9.323***	9.323***	-9.323***	-9.323***	9.323***	9.323***	9.323***	9.323***	9.323***	-9.323***	9.323***	-9.323***	-9.323***
	[-6.592]	[-6.592]	[-6.592]	[-6.593]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]
Observations	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314

Panel G-6: Univariate effect on following various audit work in response to pension

			Dependent vari	able = (SNA_SpecTop	oic_SpecAuditWork)		
	Assess judgment	Benchmark	Expert	Disclosure	Ext confirm	3 rd parties valuation	Standards
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Same(NewAuditor)	5.547***	5.374***	5.573***	4.623***	2.791*	2.280	3.749**
	[3.896]	[3.770]	[3.915]	[3.217]	[1.801]	[1.396]	[2.554]
Constant	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***
	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]
Observations	7,314	7,314	7,314	7,314	7,314	7,314	7,314



Panel G-7: Univariate effect on following various audit work in response to acquisition and disposal

	Dependent variable = Follow(SNA_SpecTopic_SpecAuditWork) P&S Mgt										Field visit/
	Val model	Ext data	Expert	agreement	Disclosure	Standards	CF project	discuss	Controls	Reconcile	stock take
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Same(NewAuditor)	6.283***	5.435***	5.435***	5.547***	5.087***	4.556***	4.855***	3.581**	3.128**	3.749**	2.791*
	[4.428]	[3.815]	[3.815]	[3.896]	[3.560]	[3.167]	[3.389]	[2.424]	[2.069]	[2.554]	[1.801]
Constant	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***	-9.323***
	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]	[-6.592]
Observations	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314	7,314

^{*,**,***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise.

See Appendix B for all variable descriptions.

Panels G-1 to G-7 present the Firth logistic regression results of the univariate effect of ongoing clients' prior audit work choice on new client's following various RMM audit work categories.



Table 21
Effects of new client on ongoing clients' RMM auditing and reporting

Panel A: Descriptive statistics

Variable	N	Mean	Std. Dev.	Min	Q1	Median	Q3	Max
RMM_Sim_score	42,182	7.998	4.391	1.646	4.834	7.092	10.130	26.425
Follow(SCA_RMM_Topic)	42,182	0.003	0.051	0	0	0	0	1
Follow(SCA_AuditWork)	42,182	0.008	0.091	0	0	0	0	1
Same(CurrentAuditor)	42,182	0.026	0.160	0	0	0	0	1
OtherAuditor	42,182	0.974	0.160	0	1	1	1	1
Diff(Size)	42,182	1.897	1.594	0.030	0.721	1.537	2.646	9.251
Diff(Lev)	42,182	0.263	0.267	0.004	0.096	0.200	0.346	1.753
Diff(ROA)	42,182	0.119	0.279	0.001	0.025	0.057	0.111	2.093
Diff(ExtraOrdinaryItem)	42,182	0.008	0.031	-	-	-	0.001	0.228
Diff(lnAge)	42,182	1.235	1.140	0.013	0.418	0.909	1.681	5.856
Loss	42,182	0.160	0.366	0	0	0	0	1
GC	42,182	0.015	0.120	0	0	0	0	1
MA_num	42,182	0.638	1.173	-	-	-	1.000	6.000
NewEquity_num	42,182	0.190	0.561	-	-	-	-	3.000
IPO	42,182	0.002	0.049	0	0	0	0	1
Busy	42,182	0.528	0.499	0	0	1	1	1
Both(Big4)	42,182	0.819	0.385	0	1	1	1	1
Diff(AuditFirmIndExp)	42,182	0.122	0.090	0.007	0.053	0.082	0.177	0.342
Diff(lnAbAuditFee)	42,182	0.625	0.476	0.011	0.245	0.523	0.904	2.186
Diff(lnRMMwordcount)	42,182	0.527	0.395	0.008	0.213	0.451	0.753	1.823
Note_Sim_score	42,182	9.405	6.029	1.487	5.444	8.390	11.754	38.107
Diff(lnReportLag)	42,182	0.265	0.216	-	0.095	0.210	0.380	0.929
Follow(SCA_RMM_Impair)	42,182	0.001	0.028	0	0	0	0	1
Follow(SCA_RMM_Rev)	42,182	0.000	0.017	0	0	0	0	1
Follow(SCA_RMM_Prov)	42,182	0.000	0.021	0	0	0	0	1
Follow(SCA_RMM_Tax)	42,182	0.000	0.019	0	0	0	0	1
Follow(SCA_RMM_Val)	42,182	0.000	0.016	0	0	0	0	1
Follow(SCA_RMM_Pension)	42,182	0.000	0.012	0	0	0	0	1
Follow(SCA_RMM_AcqDis)	42,182	0.000	0.019	0	0	0	0	1
Follow(SCA_RMM_IC)	42,182	0.000	0.008	0	0	0	0	1
Follow(SCA_RMM_ExItem)	42,182	0.000	0.013	0	0	0	0	1
Follow(SCA_RMM_CapCost)	42,182	-	-	0	0	0	0	0
Follow(SCA_RMM_Legal)	42,182	0.000	0.007	0	0	0	0	1
Follow(SCA_RMM_GC)	42,182	-	-	0	0	0	0	0
Follow(SCA_RMM_Policies)	42,182	0.000	0.005	0	0	0	0	1
Follow(SCA_RMM_FI)	42,182	-	-	0	0	0	0	0
Follow(SCA_Impair_AuditWork)	42,182	0.004	0.062	0	0	0	0	1
Follow(SCA_Rev_AuditWork)	42,182	0.003	0.055	0	0	0	0	1
Follow(SCA_Prov_AuditWork)	42,182	0.001	0.034	0	0	0	0	1
Follow(SCA_Tax_AuditWork)	42,182	0.001	0.029	0	0	0	0	1
Follow(SCA_Val_AuditWork)	42,182	0.001	0.023	0	0	0	0	1
Follow(SCA_Pension_AuditWork)	42,182	0.000	0.019	0	0	0	0	1
Follow(SCA_AcqDis_AuditWork)	42,182	0.000	0.019	0	0	0	0	1

Panel A reports the descriptive statistics for testing the effect of new client's prior RMM reporting on ongoing clients' current RMM textual similarity, RMM topic choice and audit work choice. Sample includes pairwise audit reports of the same industry firms in prior and current years (i.e. year t and year t-1) and current-year firms are restricted to have no auditor change while prior-year firms are restricted to have a different auditor from those of current-year firms. (continued on next page)



Pane	l B: 1	Effect	on	textual	simi	larity
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ranei B. Effect on textual Similarity	Dependent variable = RMM_Sim_score
	(1)
Same(CurrentAuditor)	3.494***
	[3.549]
OtherAuditor	3.028***
	[3.074]
Diff(Size)	-0.213***
	[-5.286]
Diff(Lev)	-1.072***
	[-5.670]
Diff(ROA)	-0.241
	[-1.512]
Diff(ExtraOrdinaryItem)	-1.845
	[-0.672]
Diff(lnAge)	-0.118***
	[-3.402]
Both(Big4)	0.365***
	[2.875]
Diff(AuditFirmIndExp)	-0.0259
	[-0.045]
Diff(lnAbAuditFee)	-0.508***
	[-4.892]
Diff(lnRMMwordcount)	-0.470***
	[-3.512]
Note_Sim_score	0.255***
	[18.423]
Year FE, Industry FE, Auditor FE	Yes
Observations	42,182
R-squared	0.825

F-test of difference between coefficients

	F-test
Same(CurrentAuditor) > OtherAuditor	13.96***

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Year, industry and auditor fixed effects are included in the model but omitted for brevity. Standard errors are clustered at firm level. See Appendix B for all variable descriptions.



Panel B presents the regression result of the effect of new client's prior RMM wordings on ongoing clients' current RMM textual similarity. Column 1 reports result of the regression model as stated above.

D 10 DCC .	c 11 ·	DR484 .		
Panel C: Effect of	ก รถไได้นักเกิด	FRIVINIT	ONIC CHOIC	מי
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	Dependent variable = Follow(SCA_RMM_Topic)
	(1)
Same(CurrentAuditor)	9.144***
	[6.351]
Diff(Size)	-0.0334
	[-0.394]
Diff(Lev)	-0.541
	[-0.842]
Diff(ROA)	-1.654
•	[-1.220]
Diff(ExtraOrdinaryItem)	0.978
	[0.216]
Diff(lnAge)	-0.190*
	[-1.711]
Loss	0.598**
	[2.139]
GC	0.283
	[0.173]
MA_num	-0.0254
- '	[-0.282]
NewEquity_num	0.00399
	[0.021]
IPO	5.737**
0	[2.509]
Busy	-0.106
Subj	[-0.498]
Both(Big4)	-0.620
	[-0.681]
Diff(AuditFirmIndExp)	1.918
υη (παιτά ππαπαμλή)	[1.235]
Diff(lnAbAuditFee)	-0.496**
Diffinition and cel	[-2.128]
Diff(lnReportLag)	-0.656
υης (πατεροιτιμας)	[-1.153]
Constant	[-1.155] -3.494**
Constant	[-2.009]
	[-2.009]
Industry FE	Yes
Observations	42,182
onsci vations	72,102

^{*, ***, ****} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Industry fixed effects are included in the model but omitted for brevity. See Appendix B for all variable descriptions.

Panel C presents the Firth logistic regression result of the effect of new client's prior RMM topic choice on ongoing clients' following RMM topic choice. Column 1 reports result of the logistic regression model as stated above.



Panel D: Univariate effect on following specific RMM topic

				Depe	ndent variabl	e = Follow(SC	A_RMM_SpecT	'opic)			
	Impair	Rev	Prov	Tax	Val	Pension	AcqDis	IC	ExItem	Legal	Policies
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Same(CurrentAuditor)	8.119***	7.400***	7.446***	7.192***	6.929***	6.194***	7.851***	6.464***	6.338***	5.825***	5.236***
	[5.706]	[5.173]	[5.206]	[5.013]	[4.810]	[4.220]	[5.509]	[4.441]	[4.339]	[3.907]	[3.379]
Constant	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***
	[-8.259]	[-8.261]	[-8.258]	[-8.260]	[-8.259]	[-8.260]	[-8.259]	[-8.260]	[-8.260]	[-8.260]	[-8.260]
Observations	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755

^{*,**,***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise.

Panel D presents the Firth logistic regression results of the univariate effect of new client's prior RMM topic choice on ongoing clients' following specific RMM topic choice. Columns 1 to 11 report results of the logistic regression model as stated above.



See Appendix B for all variable descriptions.

Panel E: Effect on following RMM audit work choice

Panel E: Effect on following RMM	
	Dependent variable = Follow(SCA_AuditWork) (1)
Samo(CurrentAuditor)	10.83***
Same(CurrentAuditor)	
D:#/C:a)	[7.533]
Diff(Size)	-0.0759
D:(C(I)	[-1.385]
Diff(Lev)	-0.772*
D:#/DOA)	[-1.924]
Diff(ROA)	0.319
D'CCE (O L' L)	[0.656]
Diff(ExtraOrdinaryItem)	3.894
D'CCC A	[1.339]
Diff(lnAge)	-0.121*
*	[-1.726]
Loss	0.138
	[0.696]
GC	0.965
	[0.998]
MA_num	0.158***
	[2.927]
NewEquity_num	-0.0243
	[-0.194]
IPO	5.979***
	[2.797]
Busy	-0.344**
	[-2.442]
Both(Big4)	-0.726
	[-1.048]
Diff(AuditFirmIndExp)	3.183***
	[3.118]
Diff(lnAbAuditFee)	-0.288**
	[-2.015]
Diff(lnReportLag)	0.0705
	[0.199]
Constant	-3.877**
	[-2.419]
Industry FE	Yes
Observations	42,182

^{*,***,****} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Industry fixed effects are included in the model but omitted for brevity. See Appendix B for all variable descriptions. Panel E presents the Firth logistic regression result of the effect of new client's prior audit work choice on ongoing clients' following RMM audit work choice. Column 1 reports result of the logistic regression model as stated above.



Panel F: Univariate effect on following audit work in response to specific RMM topics

		Dej	pendent variable	= Follow(SNA_S	pecTopic_Audit\	Vork)	
	Impair	Rev	Prov	Tax	Val	Pension	AcqDis
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Same(CurrentAuditor)	9.755***	9.558***	8.510***	8.142***	8.510***	7.192***	7.910***
	[6.889]	[6.730]	[5.993]	[5.724]	[5.993]	[5.017]	[5.554]
Constant	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***
	[-8.261]	[-8.239]	[-8.259]	[-8.259]	[-8.259]	[-8.266]	[-8.260]
Observations	60,755	60,755	60,755	60,755	60,755	60,755	60,755

^{*,**,***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise.

See Appendix B for all variable descriptions.

Panel F presents the Firth logistic regression results of the univariate effect of new client's prior audit work choice on ongoing clients' following RMM audit work choice. Columns 1 to 7 report results of the logistic regression model as stated above.



Panel G-1: Univariate effect on following various audit work in response to impairment

			Depen	dent variable =	Follow(SCA_Spec	Topic_SpecAudit\	Work)		
	Assess judgment	Sensitivity	CF project	Ext data	Historical	Disclosure	Expert	Standards	Mgt discuss
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Same(CurrentAuditor)	8.210***	8.165***	8.313***	8.352***	8.332***	8.746***	8.142***	6.464***	5.825***
	[5.777]	[5.738]	[5.850]	[5.878]	[5.864]	[6.170]	[5.725]	[4.441]	[3.907]
Constant	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***
	[-8.264]	[-8.255]	[-8.261]	[-8.261]	[-8.261]	[-8.269]	[-8.261]	[-8.259]	[-8.260]
Observations	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755

Panel G-2: Univariate effect on following various audit work in response to revenue recognition

]	Dependent v	ariable = Fo	ollow(SCA_Sp	ecTopic_Sp	ecAuditWor	k)			_
	Samples	Contracts	Manual controls	Analytic	Assess judgment	Policies	Standards	JЕ	Ext data	Mgt discuss	IT controls	Disclosure	Reconcile
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Same(CurrentAuditor)	7.686***	7.721***	7.881***	8.095***	6.852***	7.002***	7.002***	6.338***	7.192***	6.929***	6.929***	5.573***	6.026***
	[5.389]	[5.413]	[5.533]	[5.688]	[4.750]	[4.867]	[4.867]	[4.339]	[5.014]	[4.811]	[4.811]	[3.686]	[4.079]
Constant	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***
	[-8.262]	[-8.260]	[-8.261]	[-8.258]	[-8.261]	[-8.260]	[-8.261]	[-8.260]	[-8.262]	[-8.260]	[-8.261]	[-8.260]	[-8.260]
Observations	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755

Panel G-3: Univariate effect on following various audit work in response to provisioning

	Assess	Dependent variable = Follow(SCA_SpecTopic_SpecAuditWork) Assess Mgt												
	judgment	Historical	Ext data	Disclosure	Samples	discuss	Controls	Contracts	Policies	Standards	Expert			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)			
Same(CurrentAuditor)	7.533***	6.929***	7.069***	6.464***	6.676***	6.026***	6.194***	5.236***	6.026***	6.194***	5.573***			
	[5.271]	[4.811]	[4.919]	[4.441]	[4.611]	[4.079]	[4.220]	[3.379]	[4.079]	[4.220]	[3.686]			
Constant	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***			
	[-8.259]	[-8.261]	[-8.260]	[-8.260]	[-8.260]	[-8.259]	[-8.261]	[-8.260]	[-8.259]	[-8.261]	[-8.260]			
Observations	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755			



Panel G-4: Univariate effect on following various audit work in response to taxation

		Dependent variable :	= Follow(SCA_SpecTopic_	SpecAuditWork)	
	Assess judgment	Expert	Ext data	Disclosure	Controls
	(1)	(2)	(3)	(4)	(5)
Same(CurrentAuditor)	7.192***	7.352***	6.026***	6.576***	4.725***
	[5.014]	[5.135]	[4.079]	[4.531]	[2.893]
Constant	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***
	[-8.262]	[-8.260]	[-8.260]	[-8.260]	[-8.260]
Observations	60,755	60,755	60,755	60,755	60,755

Panel G-5: Univariate effect on following various audit work in response to valuation

				D	ependent va	riable = Foll	ow(SCA_Spe	ecTopic_Spe	cAuditWorl	x)			_
	Assess judgment	Ext data	Historical	Disclosure	Controls	Analytic	Expert	Mgt discuss	CF project	Field visit/ stock take	Policies	Standards	Portfolio
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Same(CurrentAuditor)	7.002***	6.852***	6.338***	6.338***	5.236***	5.573***	7.002***	6.464***	5.236***	4.725***	5.573***	5.573***	5.236***
	[4.868]	[4.750]	[4.339]	[4.338]	[3.379]	[3.686]	[4.867]	[4.441]	[3.379]	[2.893]	[3.686]	[3.686]	[3.379]
Constant	-11.68***	11.68***	-11.68***	-11.68***	-11.68***	-11.68***	11.68***	11.68***	11.68***	-11.68***	11.68***	-11.68***	-11.68***
	[-8.261]	[-8.261]	[-8.260]	[-8.259]	[-8.260]	[-8.260]	[-8.260]	[-8.260]	[-8.260]	[-8.260]	[-8.260]	[-8.260]	[-8.260]
Observations	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755

Panel G-6: Univariate effect on following various audit work in response to pension

			Dependent vari	able = (SCA_SpecTop	ic_SpecAuditWork)		
	Assess judgment	Benchmark	Expert	Disclosure	Ext confirm	3 rd parties valuation	Standards
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Same(CurrentAuditor)	6.194***	6.464***	5.825***	5.825***	5.236***	3.625*	5.236***
	[4.220]	[4.441]	[3.907]	[3.907]	[3.379]	[1.813]	[3.379]
Constant	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***
	[-8.261]	[-8.260]	[-8.260]	[-8.260]	[-8.260]	[-8.260]	[-8.260]
Observations	60,755	60,755	60,755	60,755	60,755	60,755	60,755



Panel G-7: Univariate effect on following various audit work in response to acquisition and disposal

			Dependent	t variable = Follow(SC	A_SpecTopic_Spe	cAuditWork)		
	Val model	Ext data	Expert	P&S agreement	Disclosure	Standards	CF project	Mgt discuss
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Same(CurrentAuditor)	7.788***	6.194***	4.725***	7.192***	7.002***	7.002***	5.573***	4.725***
	[5.466]	[4.219]	[2.893]	[5.013]	[4.867]	[4.867]	[3.686]	[2.893]
Constant	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***	-11.68***
	[-8.265]	[-8.259]	[-8.260]	[-8.259]	[-8.261]	[-8.261]	[-8.260]	[-8.260]
Observations	60,755	60,755	60,755	60,755	60,755	60,755	60,755	60,755

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust z-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. See Appendix B for all variable descriptions.

Panels G-1 to G-7 present the Firth logistic regression results of the univariate effect of new client's prior audit work choice on ongoing clients' following various RMM audit work categories.



Table 22
Effect of auditor's firm-wide template on audit fees and audit delay

 $\frac{lnAuditFee\ or}{lnReportLag} = \alpha + \pmb{\beta_1} \pmb{Avg_SameAuditor_Sim_score}\ or\ \pmb{Avg_SameAuditPtn_Sim_score}\ + \ Controls\ + FE\ + \ \varepsilon$

Panel A-1: Descriptive statistics of same auditor sample

Variable	N	Mean	Std. Dev.	Min	Q1	Median	Q3	Max
<i>lnAuditFee</i>	1,229	13.712	1.322	10.703	12.737	13.564	14.497	17.600
lnAbAuditFee	1,229	0.000	0.584	(1.560)	(0.353)	0.026	0.387	1.340
lnReportLag	1,229	4.153	0.239	3.526	4.007	4.143	4.304	4.771
Avg_SameAuditor_RMM_Sim_score	1,229	10.276	4.081	3.674	7.694	9.640	11.787	27.760
Size	1,229	7.311	1.788	2.878	6.121	7.236	8.410	12.927
Lev	1,229	0.569	0.216	0.041	0.411	0.569	0.717	1.171
ROA	1,229	0.047	0.085	(0.289)	0.018	0.048	0.086	0.306
Loss	1,229	0.170	0.376	0	0	0	0	1
ExtraOrdinaryItem	1,229	0.155	0.362	-	-	-	-	1.000
GC	1,229	0.018	0.133	0	0	0	0	1
MA_num	1,229	0.569	1.037	-	-	-	1.000	5.000
NewDebt_num	1,229	0.401	0.795	-	-	-	1.000	4.000
NewEquity_num	1,229	0.198	0.584	-	-	-	-	3.000
Busy	1,229	0.554	0.497	0	0	1	1	1
Big4	1,229	0.947	0.224	0	1	1	1	1
NewAuditor	1,229	0.063	0.242	0	0	0	0	1
AuditFirmIndExp	1,229	0.269	0.105	0.016	0.233	0.271	0.333	0.510
Avg_SameAuditor_Note_Sim_score	1,229	8.087	2.450	2.598	6.254	8.123	9.774	13.473
RMM_Note_Sim_score	1,229	19.347	12.470	3.549	10.147	15.861	25.543	59.579

Panel A-2: Descriptive statistics of same audit partner sample

Variable	N	Mean	Std. Dev.	Min	Q1	Median	Q3	Max
lnAuditFee	716	13.823	1.220	11.389	13.003	13.660	14.557	17.224
<i>lnAbAuditFee</i>	716	0.009	0.570	(1.369)	(0.351)	0.045	0.388	1.229
lnReportLag	716	4.121	0.228	3.526	3.989	4.094	4.248	4.771
Avg_SameAuditPtn_RMM_Sim_score	716	13.973	8.511	3.117	8.201	12.027	17.042	55.417
Size	716	7.509	1.641	3.883	6.387	7.423	8.543	12.475
Lev	716	0.575	0.194	0.065	0.436	0.579	0.716	1.005
ROA	716	0.051	0.076	(0.232)	0.020	0.050	0.088	0.258
Loss	716	0.158	0.365	0	0	0	0	1
ExtraOrdinaryItem	716	0.147	0.354	-	-	-	-	1.000
GC	716	0.006	0.075	0	0	0	0	1
MA_num	716	0.609	1.116	-	-	-	1.000	6.000
NewDebt_num	716	0.440	0.811	-	-	-	1.000	4.000
NewEquity_num	716	0.196	0.580	-	-	-	-	3.000
Busy	716	0.507	0.500	0	0	1	1	1
Big4	716	0.965	0.184	0	1	1	1	1
NewAuditor	716	0.074	0.262	0	0	0	0	1
AuditFirmIndExp	716	0.274	0.096	0.020	0.233	0.278	0.333	0.510
Avg_SameAuditPtn_Note_Sim_score	716	10.233	7.483	1.872	5.492	8.568	11.738	44.642
RMM_Note_Sim_score	716	19.353	12.667	3.417	10.119	15.811	25.801	59.204

Panel A-1 reports the descriptive statistics for testing the effect of maintaining auditor's firm-wide RMM reporting template on audit fees and audit delay. Sample includes all firm-year observations with at least one same year match of the same auditor.

Panel A-2 reports the descriptive statistics for testing the effect of maintaining auditor's firm-wide RMM reporting template on audit fees and audit delay. Sample includes all firm-year observations with at least one same year match of the same audit partner.



Panel B: Regression model

	_	t variable =	Dependent variable = lnReportLag		
	InAud (1)	ditFee (2)	(3)	ortLag (4)	
Avg_SameAuditor_RMM_Sim_score	0.0249***	(2)	-0.00555*	(4)	
nvg_sumentuateor_m.m_stm_score	[3.441]		[-1.820]		
Avg_SameAuditPtn_RMM_Sim_score	[0.111]	0.0127***	[1.020]	-0.00151	
		[4.663]		[-1.615]	
Size	0.591***	0.567***	-0.0475***	-0.0359***	
	[27.153]	[24.744]	[-6.261]	[-2.919]	
Lev	0.634***	0.697***	-0.0721**	-0.0800	
	[4.376]	[3.635]	[-2.005]	[-1.641]	
ROA	-0.267	-0.0926	-0.414***	-0.340*	
	[-0.695]	[-0.114]	[-3.644]	[-1.798]	
Loss	-0.00544	-0.0207	0.00791	0.0455	
	[-0.065]	[-0.224]	[0.247]	[1.128]	
ExtraOrdinaryItem	0.304***	0.376***	0.0457**	0.0370*	
	[5.084]	[4.861]	[2.156]	[1.874]	
GC	-0.170	0.0968	0.127***	0.245***	
	[-0.727]	[0.640]	[2.830]	[4.928]	
MA_num	0.114***	0.116***	-0.00998	-0.00130	
	[5.602]	[4.411]	[-1.358]	[-0.213]	
NewDebt_num	-0.0206	-0.0359	-0.0175***	-0.0265***	
	[-0.831]	[-1.247]	[-2.675]	[-4.129]	
NewEquity_num	-0.0327	-0.0106	0.0181	0.0141	
	[-1.195]	[-0.208]	[1.578]	[1.244]	
Busy	0.330***	0.352***	0.0764***	0.0681***	
	[5.113]	[3.941]	[4.249]	[3.065]	
NewAuditor	-0.105	-0.105*	0.0412	0.00735	
	[-1.559]	[-1.950]	[1.129]	[0.221]	
AuditFirmIndExp	0.489	0.766**	0.0688	-0.146	
	[1.400]	[1.982]	[0.681]	[-1.357]	
<i>lnReportLag</i>	-0.00644	0.0640			
	[-0.043]	[0.410]			
<i>lnAbAuditFee</i>			0.00515	0.0167	
			[0.327]	[0.912]	
Avg_SameAuditor_Note_Sim_score	0.0114		-0.000683		
	[0.837]	0.00=40	[-0.184]	0.0040=100	
Avg_SameAuditPtn_Note_Sim_score		-0.00569		0.00405**	
	0.0000	[-1.460]	4.04.05	[2.559]	
RMM_Note_Sim_score	-0.00203	-0.00221	1.21e-05	-0.000824	
	[-0.702]	[-0.683]	[0.018]	[-0.843]	
Constant	8.432***	7.894***	4.624***	4.541***	
	[11.942]	[9.920]	[63.761]	[54.709]	
Year FE, Auditor FE	Yes	Yes	Yes	Yes	
Observations	1,229	716	1,229	716	
R-squared	0.796	0.755	0.280	0.263	

^{*, ***, ****} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Year and auditor fixed effects are included in the model but omitted for brevity. Standard errors are clustered at firm level in Column 1 and clustered at year and firm level in Columns 2 to 4. See Appendix B for all variable descriptions.

Panel B presents the regression results of the effect of average RMM textual similarity of the same auditor (audit partner) on audit fees and audit delay. Columns 1 to 4 report results of the regression model as stated above.



Table 23
Effect of prior expert's wordings on audit fees and audit delay

 $lnAuditFee~or\\ lnReportLag~=~\alpha + \beta_1 Avg_PriorIndExp_Sim_score + Controls + FE + \varepsilon$

Panel A: Descriptive statistics	;							
Variable	N	Mean	Std. Dev.	Min	Q1	Median	Q3	Max
lnAuditFee	1,059	13.622	1.330	10.649	12.681	13.487	14.354	17.539
lnAbAuditFee	1,059	0.000	0.584	(1.590)	(0.362)	0.017	0.388	1.369
lnReportLag	1,059	4.159	0.248	3.526	3.989	4.143	4.304	4.779
Avg_PriorIndExp_RMM_Sim_score	1,059	9.223	3.739	3.022	6.505	8.786	11.326	22.860
Size	1,059	7.204	1.831	2.635	5.999	7.156	8.364	12.927
Lev	1,059	0.571	0.227	0.045	0.408	0.571	0.718	1.298
ROA	1,059	0.045	0.087	(0.290)	0.016	0.047	0.086	0.310
Loss	1,059	0.180	0.385	0	0	0	0	1
ExtraOrdinaryItem	1,059	0.151	0.358	-	-	-	-	1.000
GC	1,059	0.021	0.143	0	0	0	0	1
MA_num	1,059	0.552	1.012	-	-	-	1.000	5.000
NewDebt_num	1,059	0.416	0.802	-	-	-	1.000	4.000
NewEquity_num	1,059	0.200	0.593	-	-	-	-	3.000
Busy	1,059	0.498	0.500	0	0	0	1	1
Big4	1,059	0.928	0.258	0	1	1	1	1
NewAuditor	1,059	0.071	0.257	0	0	0	0	1
AuditFirmIndExp	1,059	0.261	0.105	0.007	0.233	0.271	0.321	0.510
Avg_PriorIndExp_Note_Sim_score	1,059	11.243	6.528	2.560	7.669	9.861	12.465	36.412

Panel A reports the descriptive statistics for testing the effect of following prior expert's wordings on audit fees and audit delay. Sample includes all firm-year observations with at least one same industry match audited by a prior expert.

12.581

3.305

10.386

16.636

1,059

19.918

(continued on next page)

26.391 60.360



RMM_Note_Sim_score

Panel B: Regression model

	Dependent variable = lnAuditFee (1)	Dependent variable = InReportLag (2)
Avg_PriorIndExp_RMM_Sim_score	0.0133*	-0.00505**
	[1.705]	[-2.019]
Size	0.606***	-0.0547***
0.20	[26.522]	[-8.217]
Lev	0.630***	-0.0420
	[4.328]	[-1.227]
ROA	-0.239	-0.409***
	[-0.634]	[-2.807]
Loss	-0.00967	-0.0144
2000	[-0.117]	[-0.404]
ExtraOrdinaryItem	0.251***	0.0522**
2 as i amai y toom	[4.185]	[2.237]
GC	-0.200	0.122**
	[-0.811]	[2.379]
MA_num	0.0907***	-0.00952
··n_nam	[4.369]	[-1.208]
NewDebt_num	-0.0208	-0.0120
New Debt_num	[-0.855]	[-1.617]
NewEquity_num	-0.0233	0.0110
ivewEquity_num	[-0.778]	[1.339]
Busy	0.262***	0.0801***
Бизу	[4.257]	[4.371]
Big4	-0.0314	-0.178***
Dig4	[-0.232]	[-4.263]
NewAuditor	-0.0784	0.0348
NewAuditor	[-1.223]	[1.074]
AuditEirmIndEvn	0.518	0.0801
AuditFirmIndExp	[1.325]	[0.807]
In Panart I ag	[1.325] 0.0595	[0.007]
<i>lnReportLag</i>		
In A h Audit Eas	[0.401]	0.00553
lnAbAuditFee		
And DrienIndEnn Note Cine accus	0.00764	[0.378]
Avg_PriorIndExp_Note_Sim_score	-0.00764	0.00102
DMM Note Circ come	[-1.411]	[0.659]
RMM_Note_Sim_score	0.000451	0.000444
Constant	[0.169] 8.177***	[0.576] 4.657***
Constant		
	[10.750]	[49.021]
Year FE, Industry FE	Yes	Yes
Observations	1,059	1,059
R-squared	0.809	0.320

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Year and industry fixed effects are included in the model but omitted for brevity. Standard errors are clustered at firm level in Column 1 and clustered at year and firm level in Column 2. See Appendix B for all variable descriptions.



Panel B presents the regression results of the effect of average RMM textual similarity of a client firm in relation to other same industry firms audited by a prior expert on audit fees and audit delay. Columns 1 and 2 report results of the regression model as stated above.

Panel C: Effect of both auditor's firm-wide template and prior expert's wordings

	Dep	endent varia	able = lnAudit	tFee	De	Dependent variable = lnReportLag			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Avg_SameAuditor_RMM_Sim_score	0.0474***		0.0291**	0.0288**	-0.00723		-0.000198	-0.00102	
	[5.717]		[2.548]	[2.269]	[-1.207]		[-0.061]	[-0.154]	
Avg_PriorIndExp_RMM_Sim_score		0.0118*	0.0115	0.00232		-0.00522**	-0.00654***	-0.00472**	
		[1.836]	[0.633]	[0.136]		[-1.965]	[-2.640]	[-2.472]	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Industry FE	No	Yes	No	Yes	No	Yes	No	Yes	
Auditor FE	Yes	No	No	Yes	Yes	No	No	Yes	
Observations	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	
R-squared	0.790	0.797	0.782	0.808	0.282	0.293	0.280	0.301	

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise.



Year, industry and auditor fixed effects are included in the model but omitted for brevity. Standard errors are clustered at year and firm level except in Column 2. See Appendix B for all variable descriptions.

Panel C presents the regression results of the effect of average RMM textual similarity of the same auditor as well as that of a client firm in relation to other same industry firms audited by a prior expert on audit fees and audit delay. Columns 1 to 8 report results of the regression model as follows:

 $lnAuditFee \ or \\ lnReportLag = \alpha + \beta_1 Avg_SameAuditor_Sim_score + \beta_2 Avg_PriorIndExp_Sim_score + Controls + FE + \varepsilon.$

Table 24
Effect of following prior expert's RMM topic and audit work on audit fees and audit delay

Panel A: Descriptive statistics

Variable	N	Mean	Std. Dev.	Min	Q1	Median	Q3	Max
lnAuditFee	1,059	13.622	1.330	10.649	12.681	13.487	14.354	17.539
lnAbAuditFee	1,059	0.000	0.584	(1.590)	(0.362)	0.017	0.388	1.369
lnReportLag	1,059	4.159	0.248	3.526	3.989	4.143	4.304	4.779
Follow(RMM_Topic)	1,059	0.303	0.460	0	0	0	1	1
Follow(Spec_7_RMM_Topic)	1,059	0.242	0.428	0	0	0	0	1
Follow(AuditWork)	1,059	0.776	0.417	0	1	1	1	1
Follow(Spec_7_RMM_Topic) x								
Follow(AuditWork)	1,059	0.241	0.428	0	0	0	0	1
Size	1,059	7.204	1.831	2.635	5.999	7.156	8.364	12.927
Lev	1,059	0.571	0.227	0.045	0.408	0.571	0.718	1.298
ROA	1,059	0.045	0.087	(0.290)	0.016	0.047	0.086	0.310
Loss	1,059	0.180	0.385	-	-	-	-	1.000
ExtraOrdinaryItem	1,059	0.151	0.358	-	-	-	-	1.000
GC	1,059	0.021	0.143	0	0	0	0	1
MA_num	1,059	0.561	1.053	-	-	-	1.000	6.000
NewDebt_num	1,059	0.416	0.802	-	-	-	1.000	4.000
NewEquity_num	1,059	0.200	0.593	-	-	-	-	3.000
Busy	1,059	0.498	0.500	0	0	0	1	1
Big4	1,059	0.928	0.258	0	1	1	1	1
NewAuditor	1,059	0.071	0.257	0	0	0	0	1
AuditFirmIndExp	1,059	0.261	0.105	0.007	0.233	0.271	0.321	0.510

Panel A reports the descriptive statistics for testing the effect of following prior expert's RMM topic choice or audit work choice on audit fees and audit delay. Sample includes all firm-year observations with at least one same industry match audited by a prior expert.



Panel B: Effect of following prior expert's RMM topic choice

	Dependent variable =	Dependent variable =
	lnAuditFee	lnReportLag
	(1)	(2)
Follow(RMM_Topic)	0.0625***	-0.0212***
	[2.669]	[-3.588]
Size	0.609***	-0.0551***
	[32.101]	[-8.083]
Lev	0.630***	-0.0403
	[4.972]	[-1.201]
ROA	-0.194	-0.424***
	[-0.629]	[-3.005]
oss	-0.0109	-0.0156
	[-0.178]	[-0.417]
ExtraOrdinaryItem	0.255***	0.0534**
,	[2.754]	[2.373]
GC	-0.181	0.114**
	[-1.054]	[2.225]
MA_num	0.0848***	-0.00984
_	[5.086]	[-1.457]
NewDebt_num	-0.0216	-0.0125*
_	[-0.722]	[-1.704]
NewEquity_num	-0.0244	0.0125
4: 92	[-0.639]	[1.368]
Busy	0.260***	0.0796***
	[4.520]	[4.459]
3ig4	-0.0467	-0.169***
	[-0.441]	[-4.049]
NewAuditor	-0.0939***	0.0398
· owniaditor	[-2.591]	[1.134]
AuditFirmIndExp	0.649**	0.0166
iaatti ii mimaznp	[2.397]	[0.175]
nReportLag	0.0523	[0.17.5]
meportzag	[0.445]	
nAbAuditFee	[0.110]	0.00469
		[0.322]
Constant	8.147***	4.676***
Johnston	[13.523]	[50.502]
	[13.323]	[50.502]
Year FE, Industry FE	Yes	Yes
Observations	1,059	1,059
R-squared	0.808	0.317

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Year and industry fixed effects are included in the model but omitted for brevity. Standard errors are clustered at year and firm level. See Appendix B for all variable descriptions.



Panel B presents the regression results of the effect of following prior expert's RMM topic choice on audit fees and audit delay. Columns 1 and 2 report results of the regression model as stated above.

$$\begin{split} & lnAuditFee\ or \\ & lnReportLag \end{split} = \alpha + \beta_1 Follow(Spec_7_RMM_Topic) + \beta_2 Follow(AuditWork) + \pmb{\beta_3} Follow(Spec_7_RMM_Topic) \\ & *Follow(AuditWork) + Controls + FE + \varepsilon \end{split}$$

Panel C: Effect of following prior expert's audit work choice

	Dependent variable =	Dependent variable =
	lnAuditFee	lnReportLag
	(1)	(2)
Follow(Spec_7_RMM_Topic)	-0.212	-0.0252
	[-1.475]	[-0.396]
Follow(AuditWork)	0.0357	0.00207
	[0.498]	[0.117]
Follow(Spec_7_RMM_Topic) x Follow(AuditWork)	0.257**	0.00831
	[2.044]	[0.133]
Size	0.607***	-0.0551***
	[33.466]	[-8.269]
Lev	0.633***	-0.0419
	[4.961]	[-1.241]
ROA	-0.186	-0.421***
	[-0.580]	[-3.027]
Loss	-0.0116	-0.0160
	[-0.185]	[-0.417]
ExtraOrdinaryItem	0.254***	0.0536**
	[2.899]	[2.369]
GC	-0.185	0.118**
	[-1.106]	[2.214]
MA_num	0.0848***	-0.0101
-	[4.637]	[-1.390]
NewDebt_num	-0.0183	-0.0127*
_	[-0.612]	[-1.659]
NewEquity_num	-0.0252	0.0125
1 7-	[-0.690]	[1.354]
Busy	0.266***	0.0790***
	[4.703]	[4.435]
Big4	-0.0524	-0.169***
	[-0.485]	[-3.976]
NewAuditor	-0.0940*	0.0370
	[-1.902]	[1.078]
AuditFirmIndExp	0.649**	0.0195
	[2.403]	[0.200]
InReportLag	0.0495	. ,
, ,	[0.420]	
<i>lnAbAuditFee</i>		0.00430
		[0.294]
Constant	8.162***	4.669***
	[13.488]	[48.227]
Year FE, Industry FE	Yes	Yes
Observations	1,059	1,059
R-squared	0.808	0.317

^{*, **, ***} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Year and industry fixed effects are included in the model but omitted for brevity. Standard errors are clustered at year and firm level. See Appendix B for all variable descriptions.

Panel C presents the regression results of the effect of following prior expert's audit work choice on audit fees and audit delay. Columns 1 and 2 report results of the regression model as stated above.



Table 25 Effect of prior year RMM textual similarity on audit fees and audit delay

 $\begin{array}{l} lnAuditFee\ or\\ lnReportLag \end{array} = \alpha + \pmb{\beta_1Prior_Sim_score} + Controls + + FE + \varepsilon \\ \end{array}$

Panel A: Descriptive statistics

Variable	N	Mean	Std. Dev.	Min	Q1	Median	Q3	Max
lnAuditFee	533	13.726	1.354	10.649	12.794	13.590	14.540	17.600
lnAbAuditFee	533	0.022	0.582	(1.590)	(0.320)	0.046	0.405	1.327
lnReportLag	533	4.155	0.243	3.526	3.989	4.127	4.290	4.779
Prior_RMM_Sim_score	533	61.870	20.722	11.740	47.227	64.770	77.996	98.052
RMM_Sim_score	533	68.358	19.077	12.670	57.407	71.459	82.988	98.052
Size	533	7.316	1.842	2.727	6.097	7.273	8.442	12.927
Lev	533	0.576	0.220	0.046	0.413	0.577	0.726	1.254
ROA	533	0.042	0.092	(0.309)	0.015	0.044	0.082	0.295
Loss	533	0.184	0.388	0	0	0	0	1
ExtraOrdinaryItem	533	0.152	0.359	-	-	-	-	1.000
GC	533	0.028	0.166	0	0	0	0	1
MA_num	533	0.600	1.105	-	-	-	1.000	5.000
NewDebt_num	533	0.403	0.865	-	-	-	-	5.000
NewEquity_num	533	0.189	0.585	-	-	-	-	3.000
Busy	533	0.619	0.486	0	0	1	1	1
Big4	533	0.934	0.248	0	1	1	1	1
NewAuditor	533	0.092	0.289	0	0	0	0	1
AuditFirmIndExp	533	0.260	0.103	0.007	0.235	0.273	0.311	0.510
Prior_Note_Sim_score	533	84.577	14.493	26.865	79.677	89.221	94.508	99.438
Note_Sim_score	533	85.144	14.701	27.424	80.703	89.565	95.149	99.379
Prior_RMM_Note_Sim_score	533	20.285	12.723	3.417	10.394	16.877	27.014	59.963
RMM_Note_Sim_score	533	20.564	12.626	3.417	10.619	17.452	27.726	59.963

Panel A reports the descriptive statistics for testing the effect of prior year RMM textual similarity on audit fees and audit delay. Sample includes all firm-year observations with at least three continuous years of observable data.



Panel B: Regression model

	Dependent varia (1)	ible = lnAuditFee (2)	Dependent varia (3)	ble = lnReportLag (4)
Prior_RMM_Sim_score	-0.00382***	-0.00362***	-0.000444	-0.000418
	[-3.226]	[-3.493]	[-1.527]	[-1.078]
RMM_Sim_score		-0.00177		-0.000357
		[-1.624]		[-1.440]
Size	0.617***	0.615***	-0.0551***	-0.0560***
	[24.685]	[28.617]	[-11.008]	[-9.709]
Lev	0.609***	0.615***	-0.0283	-0.0249
	[5.052]	[5.033]	[-1.130]	[-0.969]
ROA	-0.202	-0.174	-0.205*	-0.194
	[-0.458]	[-0.352]	[-1.681]	[-1.631]
Loss	0.0376	0.0329	0.0246**	0.0237
	[0.562]	[0.484]	[2.070]	[1.386]
ExtraOrdinaryItem	0.166***	0.165***	0.0473***	0.0479***
	[3.008]	[2.930]	[3.847]	[4.008]
GC	-0.160	-0.149	0.119**	0.120*
	[-1.203]	[-1.105]	[2.053]	[1.945]
MA_num	0.0936***	0.0934***	-0.00655	-0.00612
	[4.981]	[5.734]	[-0.952]	[-0.888]
NewDebt_num	0.00532	0.00772	-0.0150*	-0.0141*
	[0.461]	[0.475]	[-1.717]	[-1.938]
NewEquity_num	-0.0306	-0.0342	0.0349	0.0340
	[-0.500]	[-0.577]	[.]	[.]
Busy	0.259***	0.259***	0.0964***	0.0967***
	[6.464]	[6.755]	[3.683]	[3.359]
Big4	-0.0832	-0.101	-0.187***	-0.191***
_	[-1.075]	[-1.062]	[-5.232]	[-5.306]
NewAuditor	0.00465	-0.0547	0.0498	0.0391
	[.]	[.]	[1.022]	[0.879]
AuditFirmIndExp	0.575**	0.635***	0.0821	0.0985
•	[2.255]	[2.768]	[1.319]	[1.601]
InReportLag	0.0236	0.0165		
, 5	[0.204]	[0.134]		
lnAbAuditFee	. ,	. ,	0.00137	0.000273
			[0.098]	[0.019]
Prior_Note_Sim_score	0.000237	0.000293	0.00108	0.00114***
	[0.987]	[.]	[.]	[8.805]
Note_Sim_score	. ,	0.000305	.,	7.27e-05
		[0.241]		[0.076]
Prior_RMM_Note_Sim_score	0.00103	-0.000257	0.000591	-0.000572
	[0.473]	[-0.042]	[0.904]	[-0.370]
RMM_Note_Sim_score	[]	0.00217	F1	0.00166
		[0.341]		[0.926]
Constant	8.426***	8.517***	4.569***	4.564***
	[15.616]	[8.961]	[59.167]	[32.897]
Year FE, Industry FE	Yes	Yes	Yes	Yes
Observations	533	533	533	533
R-squared	0.822	0.823	0.325	0.327

^{*, ***, ****} Denote statistical significance at the 10%, 5%, and 1% levels, respectively. Robust t-statistics are in parentheses. Significance levels are based on one-tailed tests where there is a prediction for the sign of the coefficient and based on two-tailed tests otherwise. Year and industry fixed effects are included in the model but omitted for brevity. Standard errors are clustered at year and firm level. See Appendix B for all variable descriptions.

Panel B presents the regression results of the effect of prior RMM documentation textual similarity (i.e. year t-1 and year t-2) of the same client firm on current (i.e. year t) audit fees and audit delay. Column 1 to 4 report results of the regression model as stated above.

