

**The Informational Value of Key Audit Matters in the Auditor's Report: Evidence from an
Eye-tracking Study**

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May 26, 2014

The authors would like to thank the participants at research workshops at Brock University, Manchester Business School, HEC Montréal and at the Auditing Section Midyear. We acknowledge financial support from International Association for Accounting Education and Research (IAAER) Research Informing the IAASB Decision Process program, and “la Fondation HEC Montréal”.

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ABSTRACT

In order to respond to the demand for more information on matters important to users' understanding of audited financial statements and the audit, the International Auditing and Assurance Standards and the U.S. Public Company Accounting Oversight Board have both proposed a new auditing standard requiring the communication of additional information in the auditor's report. In an experiment using eye-tracking technology we examine whether and how additional information in the auditor's report affects how users navigate through and integrate the information presented in the related audited financial statements. The main results show that the matters mentioned in the auditor's report affect the participants' information search and increase their attention to financial statements disclosures mentioned in the auditor's report. Whereas the communication of additional information has attention directing value, users' perception of the audit seems to be negatively affected – contrary to standard setters' expectation, the communication of additional information is associated with lower perceived audit quality and a perception that the degree of assurance provided by the auditor differs across components of the financial statements.

Keywords: Auditor's report, key audit matter, expectation gap, eye-tracking.

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1. Introduction

This paper reports the results of an experiment that examines the effect of communicating additional information in the audit report to financial statement users as proposed by the International Auditing and Assurance Standards (IAASB) and the U.S. Public Company Accounting Oversight Board (PCAOB) in their proposed auditing standards (IAASB 2013; PCAOB 2013) issued during the summer 2013.

These proposals are a response to users' demands for auditors to be more transparent and to provide entity and engagement specific information in their reports (e.g., CFA Institute 2011; Footprint Consultants 2011). In recent years, regulators have examined various alternatives for providing additional information in the audit report, including greater use of "Emphasis of Matter" paragraphs (i.e., matters of significant importance related to the entity's financial statements) and "Other Matter" paragraphs (i.e., matters related to the audit that are relevant to user's understanding of the audit). Following a consultation process, the IAASB and the PCAOB propose requiring the communication of "key/critical audit matters" (KAM) in the auditor's report. These additional communications are expected to enhance the communicative value of the auditor's report by, among others, helping "investors and other financial statement users focus on aspects of the company's financial statements that the auditor also found to be challenging" (PCAOB 2013) and providing a "(...) roadmap to help users better navigate complex financial reports and focus them on matters likely to be important to their decision-making" (IAASB 2011par. 36).

Yet, it is unclear whether these changes will mitigate the persistent “expectations” and “information” gaps standard setters wish to address. Indeed, research suggests that despite modest improvements to the content and format of the auditor’s report over the years, it is still largely perceived as providing little informative value to users (e.g., Church, Davis, and McCracken 2008; IAASB 2011). Experimental studies on the impact of additional disclosure in the auditor’s report pertaining to the entity’s financial statements are inconclusive and most find that there is no significant impact on users (Mock et al. 2013). Also, while financial statement users may ask for greater entity and engagement specific disclosures in the auditor’s report, the benefits of such disclosure remain uncertain and any such (unproven) benefit would have to be weighed against non-trivial challenges and issues associated with the increased disclosure. Among such issues is the risk of including too many matters in the auditor report which may diminish the overall effectiveness of the auditor’s communication on such matters (IAASB 2013 p. 89). Users may also inappropriately rely on auditor’s disclosures as a “substitute for reading the financial statements” (IAASB 2012 par. 63(d)). Ultimately, the auditor’s commentary may unintentionally bias users’ reading of an entity’s financial statements, leading to discard otherwise useful information not referred to in the auditor’s commentary while placing exaggerated emphasis on the information explicitly commented on. In turn, the overreaching objective of standard setters to “improve users’ ability to make *informed decisions* on the basis of the financial statements and the audit” (emphasis added, IAASB 2012 par. 8) may be compromised.

This study provides evidence on the “costs and benefits” of the communication of key audit matters in the auditor’s report. Specifically, we examine whether users read and integrate both actual auditor’s report information and audit matters proposed by regulators, and whether the attention paid to specific information in the financial statements is affected by the associated audit

matter communicated in the auditor's report. We also examine whether these additional disclosures affect users' perception of the financial statements audit.

Based on cognitive psychology we develop hypotheses as to how highlighting information in the auditor's reports affects investors' information acquisition. We test these hypotheses in a laboratory experiment employing unobtrusive eye-tracking technology. This technology allows us to objectively and precisely measure users' attention to specific information contained in the auditor's report and the related financial statements. It further allows us to understand the actual process by which this information is acquired and how it affects users' perception of the audit.

Ninety-eight post-graduate accounting students participated in an experiment where they played the role of junior financial analysts and analyzed the financial statements of a manufacturing company that presented one of four versions of the auditor's report: current auditor's report, auditor's report with one or three key audit matters, and three key audit matters presented along with related audit procedures. This between-subjects design allows evaluating whether user behavior differs between (1) the current auditor's report and an auditor's report with additional matters, (2) the number of matters presented in the auditor's report, and (3) the inclusion of audit procedure in the discussion of the audit matter.

Our results show that participants give attention to the supplementary information presented in the auditor's reports and that the matters mentioned in the report affect the participants' information acquisition. Thus, participants accessed the related financial statements disclosures faster and in fewer steps when these matters are communicated in the auditor's report. In addition, when audit matters are communicated in the auditor's report, participants paid higher attention to the related financial statements disclosures and paid less attention to other financial

statements components. The number of matters mentioned in the report (one *versus* three) also has an effect on their information acquisition. Specifically, users accessed more rapidly an item mentioned in the audit report and gave it a higher level of attention when there is only one matter communicated in the audit report than when three matters were communicated.

We also examine whether the proposed changes in auditor reporting may have a positive effect on users' perception of audit quality as expected by standards setters. We assess further whether this may increase the expectations gap if users perceive that the level of assurance on individual accounts or disclosures varies when some of them are referred to in the auditor's report. We find that the participants perceive that the degree of assurance provided by the auditor differs across components of the financial statements when the auditor communicates on specific matters. They also perceive the level of audit quality to be lower, although this is limited to when only one matter is mentioned in the auditor's report.

This study suggests that the communication of audit matters in the auditor's report as proposed by the IAASB and the PCAOB provides a roadmap that helps users navigate complex financial statements and focus on matters highlighted by the auditor. The findings also indicate that such highlighting may bias the users' information acquisition of other financial statements information and that more matters in the audit report mitigates the attention devoted to matters highlighted by the auditor. Accordingly, auditors will have to be careful in the selection of the key audit matters and the number of matters to communicate in the auditor's report.

This study extends previous audit reporting research by examining the effect of the auditor's report on the information search behavior of users. It has direct policy implications as it addresses questions raised by both the IAASB and PCAOB regarding the significant changes

proposed to the auditor's reporting model. For example, while the increased auditor disclosure has an impact the way users navigate complex financial statements, standard setters should address the possibility that the proposed model may actually increase the expectations gap the proposed changes seeks, at least in part, to address. Regulators should also investigate further the finding suggesting that readers are less attentive to other information contained in the financial statements when multiple matters are disclosed by the auditor as this may imply that important information is not integrated by readers.

This study also contributes by introducing eye-tracking technology to auditing research. By using eye-tracking technology to assess the importance of attention to financial statements components, we respond to long-awaited calls by Birnberg, and Shields (1984) for the need to use such devices to answer questions on the role of attention in accounting. In accounting research, the use of eye-tracking has been limited (e.g., Hunton, and McEwen 1997; McEwen, and Hunton 1999). To our knowledge, our study is the first study to apply eye-tracking to auditing research.

The remainder of this paper is organized as follows. The next section develops our research propositions and questions from existing theories and previous studies. The third section presents the research design used to test these propositions and questions, the measurement of variables, and the sample selection procedures. Our experimental results are presented in the fourth section and a conclusion follows.

2. Theory and hypotheses

Attention directing role of the key audit matters

The issue of financial disclosure overload and complexity has been addressed by many organisations and researchers over recent years (e.g., European Financial Reporting Advisory

Group 2014; KPMG 2011; Miller 2010; You, and Zhang 2009). The volume of mandated disclosures and footnotes is seen as the most significant contributor to this issue (KPMG 2011). In the context of decision making, investors, analysts, and other market professionals are boundedly rational as they have limited cognitive abilities to process all information made available to them (Lee 2012). They face information overload, a situation where the volume of information supply is greater than the information-processing capacity of an individual within a certain time period (Eppler, and Mengis 2004; Mayer, and Moreno 2003). When information supply exceeds the information-processing capacity, a person has difficulties in identifying the relevant information (Eppler et al. 2004). As such, users may face problems in navigating through the financial statements and footnote disclosures. They are unsure on where to start reading the statements and because of the volume of disclosures, they may skip relevant parts while focusing on irrelevant parts of the statements.

This problem is exacerbated for nonprofessional investors, who in comparison to analysts, generally have ill-defined decision models, possess little knowledge about the importance of specific financial statement items or the relations among financial statement items and fail to identify specific data needed for financial analysis (SRI International 1987; Maines, and McDaniel 2000). Similar to less experienced analysts, nonprofessional investors tend to execute unfocused searches, reading financial statements in the order presented (Bouwman 1982; Hunton et al. 1997).

Mayer and Moreno (2003) suggests a method termed “signalling effect” to overcome this overload. This serves as a cognitive bias that modifies the display of data and biases the way information is perceived and processed (Arnott 2006). Information overload can be reduced by providing cues on how to use the available information. Mayer (2001) mentions that people learn

better when cues are added that highlight the organization of the essential material. This bias can be introduced in several ways such as highlighting or emphasizing texts or tables, or by formatting the learning material (Mayer et al. 2003).

We suggest that the use of key audit matters (KAM) section in the auditor's report is a type of signal as it highlights certain parts of the financial statements. As signaling helps in the process of selecting and organizing relevant information (Mayer et al. 2003), we suggest that supplementary information in the auditor's report will help users by guiding them to parts of the financial statements that are referred to in the auditor's report. As such, we expect that users will access the parts of the financial statements that are referred to in the auditor's report more rapidly and will pay higher attention to these parts. This forms the basis for our first hypothesis:

Hypothesis 1a: Users access the parts of the financial statements that are referred to in the auditor's report more rapidly.

Hypothesis 1b: Users pay higher attention to the parts of the financial statements that are referred to in the auditor's report.

Impact on other elements not referred to in the financial statements

As a signal, KAMs "bias" the users' information acquisition behavior toward parts of the financial statements that the auditor considers important in reaching his/her opinion. Increasing the acquisition of information referenced to in the KAM section may come at the cost of reducing users' attention to and acquisition of other information in the financial statements. Indeed, users respond to the information overload associated with the complex task of financial statement analysis primarily in two ways: *withdrawing*, i.e., keeping the number of information to a minimum, and *filtering*, i.e., processing only information identified as having high priority (Miller 1962; Savolainen 2007). In other words, to cope with their limited cognitive ability, users avoid

excessive information supply by keeping the information to a minimum. Accordingly, we hypothesize that:

Hypothesis 2: Users pay less attention to the parts of the financial statements that are not referred to in the auditor's report.

Number of matters mentioned in the key audit matter section

As indicated by the IAASB and the PCAOB, the auditor might identify either one or several KAMs. While the PCAOB is silent as to the impact of the number of matters that could be communicated in the audit report, the IAASB (2012 par. A9) specifies that “[I]n general, the greater the number of key audit matters, the less useful the auditor's communication of key audit matters may be.” This suggests that by providing multiple cues may create confusion and be less effective in reducing the information overload than when only a few items are communicated. Indeed, users have multiple “important” information items to acquire, reducing the cognitive resources available for assessing each information item. In turn, this leads to our third hypothesis:

Hypothesis 3: The effect of audit matters in the auditor's report on users' information acquisition behavior (access speed and attention) is higher when there are a lower number of matters communicated in the audit report.

Users perception of the audit

According to the IAASB, the proposed changes in auditor reporting may “(...) have positive benefits to audit quality or users' perception of it. This in turn may increase the confidence that users have in the audit and the financial statements” (IAASB 2013 p. 7). Previous research has shown that attempts to clarify the auditor's report regarding the role and limitations of the audit provided limited benefit to financial statement users (Mock et al. 2013). However, previous changes were mainly oriented towards providing generalized audit responsibilities instead of

detailing considerations and findings regarding the enterprise as specific outcomes of the particular audit (Humphrey, Moizer, and Turley 1992).

Providing more specific information on a company audit in the auditor's report may convey additional value or relevant information to users. Indeed, a study by Hatherly, Brown, and Innes (1998) suggests that additional communications in the audit report on important matters may affect the users' perception of the audit. They examined the effect of a free-form audit report, which, in addition to the standard report, included a four pages free-form report of key accounting and auditing matters encountered in the course of the audit, along with their resolution. Among other, they find that the free-form report significantly increases users' perception that the audit report enhances the credibility of the financial statements.

As suggested by the IAASB in its 2012 invitation to comment, the communication of important matters in the auditor's report may also increase the expectations gap if users perceive them as providing specific assurance on individual accounts or disclosures referred to in the auditor's report (IAASB, 2012). Because of these concerns, the IAASB proposal does not require auditors to include the audit procedures performed in their communication of KAM in the auditor's report (IAASB 2013). Indeed, Hatherly et al. find that free-form report significantly reduces the user's perception that "the auditor's report relates to the financial statements as a whole and not to any specific item or group of items"(1998 p. 28) Even worse, it reversed the perceptions gained on this dimension with the 1990's expanded report (Hatherly, Innes, and Brown 1991).

The inclusion of additional information in the form of KAMs in the auditor's report may affect users' perception of the audit, namely their perception of audit quality in general as well as

the uniformity of assurance level among financial statements components. Given the generally mixed findings in the literature on the impact of auditor reporting format on users' perception of the audit, instead of a directional hypothesis, we state a research question to investigate whether KAM in the auditor's report affect users' perception of the audit. The research question has three parts as follows:

Research question 1a: Does the communication of key audit matters in the auditor's report affect users' perception of the audit?

Research question 1b: Does the number of matters communicated in the key audit matters section of the auditor's report affect users' perception of the audit?

Research question 1c: Does the inclusion of the audit procedure performed in response to an audit matter affect users' perception of the audit?

3. Research method

Experimental Design

To test our hypotheses and answer our research questions, we conduct an eye-tracking experiment with 1 x 4 between-subjects design with four versions of the auditor's report. The groups are as follows: a control group exposed to a standard audit report without a key audit matter (KAM) section (group A: standard), a second group exposed to an audit report with one audit matter disclosed in a section labeled as "auditor commentary" (group B: 1-KAM), a third group exposed to an audit report with three audit matters in the "auditor commentary" section (group C: 3-KAM), and a fourth group exposed to an audit report with 3 matters along with a description of audit procedures and additional information in a section entitled "key audit matters" (Group D: 3-KAM + procedures).¹ Each group received the same set of audited financial statements, where

¹ We use 3 matters, because it is the average number of matters included in the French equivalent to a KAM section, the justification of appreciations paragraph (Bédard, and Gonthier Besacier 2013)

only the auditor's reports differed as mentioned above (See appendix A for a copy of the four audit reports).

In all three extended audit reports, the auditor comments explicitly on note 5 to the financial statements. Audit reports with three matters disclosed, groups C and D, also refer to two additional notes to the financial statements, notes 1k and 14 (See appendix B for the content of the three notes). This between-subjects design allows us to evaluate the effect on users' behavior of (1) an auditor's report with key audit matters (H1, H2 and RQ1a), (2) the number of matters presented in the auditor's report (H3 and RQ1b), and (3) the inclusion of the audit procedure in the description of a key audit matter (RQ1c).

Procedures and materials

The experiment was done in two stages with the instructions, context and the complete set of financial statements, including fifteen notes, and questions available in an HTML format. Subjects were asked to assume the role of a loan analyst working for a local bank. For their task, the subjects were asked to read on a computer screen the latest audited financial statements of a potential client seeking to refinance an expiring loan for the amount of 2 million dollars in order to perform a simple credit evaluation and conclude on the potential client's loan application (i.e., credit score, decision, amount and rate), similar to Miller, and Smith (2002) and (Viger, Belzile, and Anandarajan 2008).

At the beginning of the experiment, subjects were briefed about the study and were told that their eye movements will be recorded. Overall, very little guidance was provided as subjects were told all the instructions and relevant material would be presented to them in web format. Then their eyes were calibrated using the software before starting the recording of their eye

movements and navigation activity. In the first stage, subjects would advance sequentially, without possibility to return, to an instruction page followed to the task description and context page before beginning the credit evaluation task by accessing the complete set of audited financial statements, including the auditor's report. Once subjects clicked to proceed to the financial statements they were not be able to return to the description page.

As we wish to assess the signaling role of KAM disclosures in the auditor's report, a major challenge of the study was having subjects notice the report without explicitly exposing its cues. Indeed, the subjects were never told that the experiment dealt with an auditing issue². Hence, after leaving the task description page, a page with a navigation menu consisting of hyperlinks to the sections of the financial statements³ appeared on the left-side, along with only a large, bold text message mentioning "Click on the Auditor's Report" appearing in the main section. None of the hyperlinks in the navigation menu would be active at that point, except the first one called "Auditor's report". Once they clicked on the link the content of the auditor's report would appear. At this point, the links to the other sections of the financial statements still remained inactive until subjects scrolled down at the bottom of the page and click the "Continue" button.

Once they clicked on the "Continue" button, the subjects would remain on the auditor's report page although the other links would then become active and change color. From then on, the subjects could freely navigate through the financial statements by clicking on the links on the left-side menu with would remain always available, much like any other web-enabled financial

² Post experimental discussions with the subjects confirm that the subjects were not biased in this regard. When asked on what they believe the experiment was, none of the subjects mentioned "auditing".

³ One link per section of the statements, starting with: 1) Auditor's report, 2) Balance sheet, 3) Income statement, 4) Cash flow statement, 4) Note 1 to Note 15. The titles of the notes were not provided in the links so that subjects were forced to read the content of the notes to identify their content. Each section of the statements had a unique URL address.

statement available on the web⁴. They could also, at any time, click on a button at the bottom of each page to advance to the “Evaluation” page where they would perform the first part of their task⁵. The subjects could always return to the financial statements by clicking a “Return to F/S” button or, alternatively, click a “Finalise evaluation” button to move on to the second part of the task⁶. Once the task was completed, the subjects moved on to post-experiment questionnaire pages, where they responded to questions relating to their perception of the audit.

Prior to conducting this study, we conducted a pilot test to validate the experiment material with 15 subjects. The experiment with the final material was also conducted with a few experienced loan analysts who confirmed the realism of the task and the material. Financial statements were based on a medium sized, manufacturing Canadian public company listed on the Venture TSX. We modified the financial statements to limit note size and the number of notes to 15, and insure coherence between the statements and the audit report information. Moreover, to further simplify the financial statements and improve coherence, they were adapted following Canadian Accounting Standards for Private Enterprise.⁷

The experiments were conducted over a two week period at a large Canadian university. On average, complete experiment time was 35 minutes, excluding setup time, calibration and

⁴ See for example:

<http://www400.abbext.com/2011/ar/financialreview/consolidatedfinancialstatements/reportofthestatutoryauditorontheconsolidatedfinancialstatements.html?cat=m>

⁵ This part of the task consist of assigning a credit score on a 9 point scale, decide on the loan application (accept or not), along with a brief text explanation the subjects are asked to provide in a textbox. This explanation is merely intended to add realism to the task and stimulate subjects in their reflection and analysis.

⁶ For this part, subjects were asked to decide on the rate and amount of the loan if it had been approved by their supervisor. They could not return to the first part of the task, however they could return to the full set of financial statements as before if needed.

⁷ During the experiment subjects did not have access to a calculator, pen or paper. Having done so would have distracted the subjects away from the screen and it would have therefore been impossible to record their eye movements. However, such tools were not necessary as subjects did not have to explicitly perform calculations. Moreover, the subjects’ true mental processes can be more easily inferred from the eye data as they are forced to carefully look at the statements as they perform mental calculations in conducting their task.

debriefing (about 12 minutes), with an average (median) of 27 minutes (26 minutes) spent on performing the two parts of the tasks and reading the financial statements. No time limit was imposed for the experiment.

Subjects

A total of 98 students enrolled in post bachelor accounting degree at a large Canadian university were recruited as subjects. The strict admission requirements for this program insure that all students have a thorough training in accounting and finance. Moreover, close to a third of the first year students and the majority of the second year students enrolled in this program will have done a minimum 3-month internship in an accounting firm. The program curriculum is uniform for all students, further ensuring uniformity across the subjects. Overall, the participants had sufficient understanding of financial statements and audit reports to serve as appropriate proxies for nonprofessional investors (Maines et al. 2000). We assigned the participants randomly to the four groups; no participants were excluded from the analysis.

Measurement of attention and access: eye tracing technology

Our study investigates the signaling role of disclosing KAMs in the auditor's report and evaluates how it affects financial statements users' information acquisition behavior when reading financial statements. In particular, we wish to assess how KAMs may direct and possibly bias readers' attention to specific information contained in the financial statements. To achieve this, we rely on eye-tracking technology. Recording of eye movements can provide an objective and direct trace on where a person's attention is being directed for a particular visual area. Involuntary and voluntary eye movement responses reflect the internal processing of information (Rayner 1998).

Eye movements are made up of short bursts of stationary visual display termed fixations and are filled up with rapid and continuous movements termed saccades (Jacob 1995). During fixations, eyes remain almost motionless, whereas saccades are movements from one fixation to another. In order to see an object clearly, one must move the eyeball to make that object appear directly on the fovea, an area near the center of the retina densely covered with receptors (Jacob 1995). When readers fixate their eyes in such a way on a given area/object, they are paying attention to this area/object and making an attempt to understand the content as the brain starts to process the visual information received from the eyes (Rayner 1998; Wedel, and Pieters 2007). At that moment, a person's eye position can be directly recorded by an eye tracker. We use the *Tobii X-60 Eye Tracker* reader for this experiment. This reader has the main advantage of being unobstructive; subjects are simply required to read and navigate throughout the material on screen in a natural and realistic setting without the need of special eyewear.

Eye-tracking technology enables researchers to precisely assess the subjects' attention to a specific area (e.g., Goldberg, and Kotval 1999). In our study, we focus on the content area (i.e., the text area of the notes, right of the financial statement navigation menu) of notes 1k, 5 and 14 that are highlighted in the auditor's report, along with the area in the report where the audit matters are presented. Eye fixation is the most relevant metrics for evaluating attention and information processing and two measures are generally used in the literature: *number of fixations* recorded in an area of interest and *total fixation duration*⁸ (e.g., Rayner 1998). Fixation duration indicates the engagement of attention (i.e. how long one looks at the content) (Armstrong, and Olatunji 2009), while fixation count reveals the amount of cognitive processing (Poole, and Ball

⁸ Total fixation duration is the sum of the time of individual fixations recorded for a given area of interest, including the time for saccades (i.e., the time between the fixations). A typical fixation lasts for 200-300 milliseconds approximately.

2006). Greater fixation count and/or fixation duration recorded in an area of interests indicates greater attention to the content of that area.

We use number of fixations as our measure of attention to formally test hypotheses H1b, H2 and H3. Indeed, because the number of fixations and total fixation duration are related and highly correlated (Cronbach's alpha ranging from 0.948 to 0.977 between the measures for the different areas studied), we report for brevity only the results of our tests based on the number of fixations. Our conclusions remain unchanged when using total fixation duration.

We also rely on our fixation measure to test users' search pattern and speed in accessing specific information in the financial statements (i.e., H1a and H3). The time to first fixation (*TFFF*) can be used to identify how long participants take to first fixate that particular area of interest (Goldberg et al. 1999). Not only does this metric provide an indication of the subject's search pattern, or sequence, but it is also related to the subject's level of attention for a particular element. Indeed, *TFFF* is negatively correlated with the potential degree of saliency of a visual area, such that high values of time to first fixation denote low importance of saliency (Jacob, and Karn 2003). In other words, if, for example, the time to first fixation to note 5 is low, it means that subjects considered it to be more important.

Tests for Hypotheses 1, 2 and 3

We formally test our hypotheses by estimating the following model, in general form:

$$\begin{aligned} ACCESS_ or\ ATT_ = & \alpha + \gamma_1 ATT_COMM_N\#_i + \beta_1 GROUP_B_i + \beta_2 GROUP_C_i + \\ & \beta_3 GROUP_D_i + CONTROLS_i + \varepsilon_i \end{aligned} \tag{1}$$

We estimate Model (1) with an OLS regression for each notes referred to in the KAM section of the auditor's report and the other components of the financial statements for hypothesis 2.

Dependant variables: We operationalize rapidity of access to a given note, indicated as *ACCESS_* in Model (1), through two different measures: time to first fixation as defined above (*TFFF_N#*, where *N#* refer to note 1k, 5 and 14 respectively), and an alternative web-based measure, *CLICKS2_N#*, defined as the number of page-visits to accessible URL pages during the task (i.e., financial statements including notes and auditor's report), before the first fixation is recorded on the content area (i.e., text area right of the navigation menu) of notes 1k, 5 or 14 respectively. This latter measure captures the number of navigation steps required before the subject pays attention to a given note and is less subject to extremes and impacted by subject specific characteristics such as reading speed.

As indicated previously, we measure attention with the number of fixations (*ATT_* in Model (1)) to the note of interest (*ATT_N#*), the financial statements (*ATT_FS*), other disclosure notes (*ATT_OTHERNOTES*, i.e., all 13 other notes), and both the financial statements and other disclosure notes (*ATT_OTHER_FULLFS*). In addition, to test hypothesis 2, which relate to the parts of the financial statements that are not referred to in the auditor's report, we also use the total number of page-visits to URL pages of other parts of the financial statements (*URLVISITS_OTHERNOTES*, *URLVISITS_FS*, and *URLVISITS_OTHER_FULLFS*). A larger number of page-visits indicates attention to multiple sections of the financial statements.

Experimental variables: In Model (1), *GROUP_B*, *GROUP_C*, and *GROUP_D* are categorical variables taking a value of one when the subject is in that group and 0 otherwise. They represent the fixed effect of that group compared to group A (standard audit report). In addition to the main

effect of a group, we also include the subjects' attention (number of fixations) to the part of the audit report referring to a given note (*ATT_COMM_N#*), or the level of attention to the entire KAM section (*ATT_COMM_ALL*) when testing hypothesis 2 in relation to subjects' attention to the parts of the financial statements that are not referred to in the auditor's report. Note that by design, *ATT_COMM_N#* (*ATT_COMM_ALL*) is set to 0 for all subjects of group A, as well as subjects of group B when testing the impact of the KAMs on note 1k and 14 only.

Including the subjects' attention to the KAMs allows us to test whether the effect of a KAM increase with the level of attention to this matter and is a major advantage of using eye-tracking technology over a more traditional questionnaire-based experimental design. Indeed, users cannot interpret what they have seen until they pay attention and fixate their eyes on it (Pieters, and Wedel 2007). As such, by including the variable *ATT_COMM* we do not have to assume that subjects in groups B, C and D attended to the experimental condition we wish to test, (i.e., the KAMs) with the same level of attention.

Control variables: We also control for subject characteristics potentially correlated with financial statement analysis and general reading styles and skills, which could impact our measures of access speed to and total fixation count for a given section of the financial statements. For every estimation of Model (1) we include a control for gender (*MALE*) and whether the subject is enrolled in the second year of the accounting graduate program (*PROG_YEAR*). We make no predictions with respect to the sign on the coefficients of these controls.

We further control directly for differences in subjects' reading speed and general involvement in the task *READING_CONTROL*, defined as the sum of the time spent on the "General instructions" page and the "Task description and context" page prior to accessing the

auditor's report. Subjects' reading time on these pages is unaffected by the condition to which they have been exposed. Slower reading times may indicate overall slower reading speed and/or greater involvement in the task. We expect that this is positively correlated with our measures of attention⁹ as well as *TTFN* and expect the sign on the coefficient to be positive. Note, however, that we do not use this control in estimations of Model (1) using web-based measures of access (*CLICKS2_N*) or attention (*URLVISITS*) as these relate to the number of operations performed by subjects, rather than the time associated with these operations.

Table 1 presents the complete list and definitions of variables used.

Table 1

Tests for the research questions

To examine the effect of the KAM section of the audit report on users' perception of the audit we use Model (1), but use measures of perceptions as the dependent variables. Based on prior research (Hatherly et al. 1991; Gold, Gronewold, and Pott 2012) we develop six questions that assess the extent to which users ascribe confidence in the audit and the financial statements and one question on the uniformity of the level of assurance among the financial statements components. As Gold et al. (2012), we use factor analysis to reduce the six scales to one factor measuring the confidence in the audit. An exploratory factor analysis using the six raw items as input variables confirmed that they empirically reduce to only one factor. The reliability of the factor is high with a Cronbach's alpha of 0.857. Panel B of Table 2 shows our two measures of user's perceptions and the questions.

⁹ When Model (1) is estimated with *ATT_N* as the dependent variable, we use *ATT_OTHERNOTES* rather than the variable *READING_CONTROL* defined here. In this setting, *ATT_OTHERNOTES* serves the same purpose although it is arguably measured with greater accuracy. Conclusions remain unchanged when using *READING_CONTROL* in these models.

Again, we control for subject characteristics potentially correlated with the perception of the audit. As above we use *MALE* and *PROG_YEAR*. We also include subjects' attention to the full area of the three common paragraphs of the auditor's report (*ATT_AR_3PAR*). We make no predictions with respect to the sign on the coefficients of these controls.

4. Data analysis and results

Attention to audit report

The first part of our analysis provides direct evidence of *how* individuals actually read the audit report in general and whether the additional information provided in the KAM section of the auditor's report is read or not. For KAMs to have any informational value, it is necessary that the additional disclosures in the report be read. Figure 1 and Table 3 present evidence that subjects read all parts of the auditor report, with greater attention given to the additional disclosures.

Figure 1, Table 3

The heat-map shown in Figure 1 represents the fixation locations and total count of fixations for all subjects in a group for the four different audit reports. A color scale moving from blue to red indicates greater number of fixations. Thus, a darker red spot over an area of interest indicates that subjects have paid greater attention to this location; red, yellow and green represent decreasing number of fixations, respectively.

Table 3 presents average fixation duration and count per subject on specific sections of the report for the whole duration of the task. Because different sections of the report have different lengths, we present both the total fixation duration (count) and the fixation duration (count) scaled by the number of words per section. We group the four sections of the current ISA 700 audit report under the common sections label. In the common sections of the report, the introduction is

read more, arguably as it comes first at the top of the page. While the opinion section is often listed as the most informative section to readers, it is interesting to note a slight decrease in the time spent reading and fixation count per word. Overall, no clear difference across groups emerges.

Groups B, C and D were presented with expanded versions of the auditor report, which included additional matters disclosed in a KAM section. All subjects in these groups spent some time reading these additional disclosures. As illustrated by the red spots in Figure 1, there is clear evidence that the subjects focused proportionally greater attention to the additional disclosures. As indicated in Table 3, the average total fixation duration (count), scaled by the number of words in the KAMs section of the audit report, ranges from 212 (0.55) to 295 (0.77) for groups B to D, while the same metrics range from 137 (0.38) to 163 (0.47) for the common sections of the report for those groups. Overall, there is evidence that the additional auditor disclosures are read carefully.¹⁰ We analyze in the next section whether this additional information is integrated by the subjects and how it affects their search strategies within the financial statements.

Rapidity of access to financial information referred to in the audit report

Panel A of Table 4 presents the descriptive statistics for the rapidity of access, measured by *CLICKS2_N#* and *TTFN_N#*, to the three financial statements notes that are referred to in the auditor's report by group and Panel B the regression results for Model (1). Panel C present the results of joints tests on regression coefficients. The explanatory power of the models varies from 2.8% to 13.6%. Of the three control variables only the instruction reading speed

¹⁰ Subjects could return to the audit report at any time while navigating the financial statements and completing the task. The average number of return visits to the audit report after the first reading of the report is significantly higher ($p = .007$) when the audit report includes additional information than not (0.57 for the three groups with additional information, 0.11 for group A). The differences between groups B, C, and D are not statistically significant (0.41 for group B, 0.68 for group C, and .60 for group D).

(*READING_CONTROL*) is significant. Both *PROG_YEAR* and *MALE* are not significant in all the models.

As indicated by the variation in the sample size, not all the subjects attended the notes. About 15% of the subjects did not look at note 5, 6% for note 14 and 16% for note 1k (not tabulated). The proportion is similar among the 4 groups except for group B where the proportion of subjects who did not look at note 5 is the lowest (5%, 1 person) and the highest for note 1k (27%, 6 persons), in line with both H2 (i.e., group B pays less attention to items not referred in the report) and H3 (i.e., group B pays greater attention to the single item referred in its report, relative to groups C and D).

Table 4

Hypothesis 1a: We test hypothesis 1a that users will access the parts of the financial statements that are referred to in the auditor's report more rapidly, with the coefficient on subjects' attention to the section of the audit report referring to a given note (*ATT_COMM_N#*) and the coefficients on the three experimental groups (B, C, D). We predict the coefficient on *ATT_COMM_N#* to be negative. That is, readers more attentive to the auditor's comments will access the notes referenced faster. We also predict the coefficient on *GROUP_C* and *GROUP_D* to be negative, as well as for *GROUP_B* but only for note 5. We make no prediction on the sign of coefficient for *GROUP_B* when Model (1) is estimated for notes 1k and 14, as the KMAs section for this treatment group does not refer to these notes.

For financial statements note 5, the coefficient on *ATT_COMM_N5* is non-significant for both measures of rapidity of access while the coefficients for the three experimental groups are negative and statistically significant at conventional levels (one-tailed). The joint test of the three

coefficients in Panel B is also significant ($B \& C \& D < 0, p < .05$).¹¹ Thus, compared to the control group A, subjects in the three experimental groups visited less pages before accessing note 5 (5.7, 5.8 and 8.3 less pages for groups C, D, B respectively) and took less time before their first fixation on note 5 (163.4, 187.0 and 206.9 seconds faster for groups C, D, B respectively). The non-significant coefficient for *ATT_COMM_N5* indicates that only a minimal level of attention to the auditor's comment to note 5 is sufficient to direct subject more directly and rapidly to the note¹².

For note 14, which was referred to in the audit report for groups C and D, the coefficients on *ATT_COMM_N14* and *GROUP_C* and *GROUP_D* are not significant for both measures of rapidity of access. The joint test in Panel C that the coefficients *GROUP_C* and *GROUP_D* are smaller than 0, is also non-significant. For financial statements note 1k, only the coefficients on *ATT_COMM_N1k* is significant for both measures of rapidity of access. Individual tests and joint tests of the coefficients for *GROUP_C* and *GROUP_D* are not non-significant. These results suggest that the rapidity of access to note 1k depends only on the level of attention to the KAM section of the audit report referring to that note and that when the subject's attention to audit matter for note 1k is minimal there is no effect. Thus the number of other pages visited before accessing note 1k decreases by 3.2 for each fixation per word on the audit matter and the time to first fixation by 138 seconds.

Hypothesis 3: We test the effect of the number of matters in the auditor's report by comparing the coefficients for the groups with three matters (C, D) with the coefficient on *GROUP_B* for note 5.

¹¹ All *Chi*-square statistics and p-values are based on HC3 heteroscedasticity-consistent standard errors (reported in parentheses) appropriate for small sample sizes as per Long, and Ervin (2000).

¹² Recall that fixations were recorded on every individual auditor comments of the KAM section of the audit report for every participant of the experimental groups.

Consistent with H3, we predict that subjects from group B will, on average, access note 5 faster and in fewer steps than those from groups C and D. For *CLICKS2_N5* (*TTFN_N5*) the coefficient on *GROUP_B* is -8.34 ($-206,898$) while those on *GROUP_C* and *GROUP_D* are -5.7 ($-163,356$) and -5.8 ($-187,037$) respectively.¹³ Tests of these differences in Panel B show that the difference is statistically significant at the 5% level for both measure of rapidity.

Attention to financial information referred to in the audit report

Panel A of Table 5 presents the descriptive statistics for the attention by group measured by total fixation count and Figures 2 and 3 illustrate these results with the heat-maps for notes 5 and 1k by group. Again, the darker warm-colored areas represent greater relative attention to a specific area based on total fixation counts summed across all subjects in a group. Consistent with statistics presented in Panel A, the content area of the note 5 is, relative to group A, slightly darker for groups C and D and is clearly darkest for group B. On the other hand, the content area of note 1k is more lightly colored for group B and darkest for groups A and C.

Panel B of table 5 presents the regression results for Model (1) estimated on subjects' attention to each of the three notes referred in the auditor's report. The three models have R squared between 22% and 25% and are statistically significant. Of our control variables, only the level of attention to other financial statement notes is significant, as expected. Thus subjects who are generally more attentive to the information also pay more attention to notes 5, 14, and 1k.

Table 5, Figure 2, Figure 3

¹³ Given that the audit matter referring to note 5 comes second in the matter section of the audit report for Groups C and D, if participants follow a sequential acquisition, by design we may expect access to note 5 will be faster for Group B where the note is mentioned first.

Hypothesis 1b: We test whether subjects pay more attention to the parts of the financial statements that are referred to in the auditor's report with *ATT_COMM_N#*, along with the group fix effect variables *GROUP_C*, *GROUP_D* and *GROUP_B*. We predict the coefficients on *ATT_COMM_N#* to be positive, but make no predictions with respect to the sign of the coefficients on the fix effect variable (again, this only applies to note 5 for *GROUP_B*). In other words, readers' level of attention to a given note is driven mostly by their level of engagement in and interest for the related KAM and subjects with only limited attention to the auditor's comment pay on average the same level of attention to the notes referred than subjects exposed to the standard audit report with no KAMs.

As shown in Panel B of Table 5, only the coefficients on *ATT_COMM_N#* for notes 5 and 14 are significant. Individual and joint tests of the coefficients for *GROUP_C*, *GROUP_D*, and *GROUP_B* (note 5) are non-significant. These results suggest that, as expected, the attention to note 5 and 14 depends only, on the level of attention to the section of the audit report referring to that note and that when the subject's attention to audit matter is minimal there is no effect.

Hypothesis 2: The coefficients on *GROUP_B* for notes 14 and 1k allows us to test whether users pay less attention to the parts of the financial statements that are not referred to in the auditor's report for these two notes (we test this hypothesis for the financial statement disclosures other than notes 1k, 5 and 14 later in this section). Here, we predict the coefficients on *GROUP_B* to be negative. Indeed, subjects from group B are biased towards note 5 and, as H2 predicts, they are less likely to pay attention to other matters (i.e., notes 1k and 14) than the control group A. The coefficient on *GROUP_B* is not significant for note 14 while it is negative (-27.43) and significant for note 1k. These results confirm the interpretation from the heat-maps in Figure 2

which clearly show that group B has the lightest colored area. Thus referring to note 5 but not to notes 14 and 1k, reduce the attention to note 1k to a level below that of the control group A.

While this result does not apply to note 14, we stress that our test on note 1k offers a stronger setting for testing H2. Indeed, note 1k is part of a longer, more general note (note 1 – General information and significant accounting policies) where readers have to scroll down the URL page in order to see note 1k. As such, subjects have to exert greater cognitive effort to identify the relevant information contained in note 1k and are thus more at risk of missing this information. On the other hand, the full content of note 14 is more easily accessible as it is presented on screen without the need of scrolling. Finally we note that, as evidenced from Figure 2, the information presented in note 1k is arguably of significance to readers since subjects from group A clearly paid higher attention to this part of note 1, even without the auditor's signal.

Hypothesis 3: We test the effect of number of matters in the auditor's report on readers' attention to specific notes by comparing the coefficients for the groups with three matters (C, D) with the coefficient on *GROUP_B* for note 5. We predict that subjects from group B will pay greater attention to note 5 than those from groups C and D. The coefficient on *GROUP_B* is 28.6 while those on *GROUP_C* and *GROUP_D* are -15.6 and -10.01 respectively. Consistent with H3, as shown in Panel C column (1), the difference is statistically significant at the 1% level. These results confirm the visual interpretation of Figure 3 where Group B shows the darkest colors on the content area of note 5.¹⁴

¹⁴ An analysis of the number of URL page visits to note 5 also confirms that subjects' from group B returned to note 5 significantly more often than other groups (untabulated).

Attention to other components of the financial statements

In this section, we examine the effect of KAMs in the audit report on the acquisition of information in parts of the financial statements that are not referred to in the auditor's report (hypothesis 2). Panel A of Table 6 presents the average fixation counts and URL visits to the other notes of the financial statements (*notes*), the *statements* (e.g. balance sheet, income statements), and the overall financial statements excluding notes 1, 5 and 14 (*Full FS*) by group. For the financial statements as a whole, group B pays more attention than group A, while the two other groups (B, C) pay less. As with the other metrics, we formally test our hypothesis by estimating Model (1). Two controls variables are significant. *READ_CONTROL* is positive suggesting that the attention to financial statements depend on reading speed and/or how attentive the subjects are when reading the instruction. We note also that male subjects have more fixation and URL visits than female subjects.

Table 6

Panel B of Table 6 presents the regression parameters of Model (1) with attention metrics to parts of the financial statements other than notes 1, 5 and 14 as the dependent variables. Panel C the joint tests for hypothesis 2, which states that users pay less attention to the parts of the financial statements that are not referred to in the auditor's report. As such, we predict the coefficient on *ATT_COMM_ALL* to be negative, as well as the coefficients on the indicator variables *GROUP_B*, *GROUP_C* and *GROUP_D*.

The coefficient on *ATT_COMM_ALL* is insignificant for both measures of attention to other financial statement components. Thus, readers' attention to other part of the financial statements does not depend on their level of attention to the KAMs section of the audit report. The coefficient on group *GROUP_B* is not significant in any of the six regressions while those on

GROUP_C and *GROUP_D* are negative and significant in all the models except one (*GROUP_C Notes*, column (4)). While in the same direction, the results are stronger with the fixation count. This is confirmed by the joint test on *GROUP_C* and *GROUP_D*, which are only significant for the fixation count measure of attention. Thus, when the KAMs section of the audit report includes three matters, subjects pay less attention to both the other notes and the statements than when there is no KAM section in the report. Furthermore, a test comparing groups C and D with B (not tabulated) indicates that subjects pay less attention to both the other notes and the statements when there are three matters rather than only one stated in the KAMs section.

These results suggest that highlighting several critical matters reduce the attention to other disclosures that are not specifically referred to in the audit report. If the information for which the attention is reduced is less important, this would suggest that the audit report increased users' information acquisition efficiency. However, it could also lead to less attention other information that may be useful for the decision task, but that is not referred to in the audit report.

Users' perception of the audit

Panel A of Table 7 presents the average values per group of our two measures of perception. For the perceived audit quality factor (*AUDQUAL*), the results indicate that contrary to the IAASB expectation, audit quality is perceived lower when the audit report includes more information. Thus, for the current audit report (group A), mean *AUDQUAL* is 0.27 and when matters are included in the report it decrease to -0.51 for the one KAM report (group B) and 0.10 and 0.07 for the three KAM reports (group C and D).

In Panel B, tests for fixed effects on groups B, C, D indicate that only the effect of group B is significant. The negative coefficient on *GROUP_B* (-0.846) indicate that being exposed to a

report with only one matter in the KAM section negatively affects users' perception of audit quality. This results hold when we include the attention to the KAM section of the report (*ATT_COMM_ALL*), as per Model (1).

As regards to the effect of the number of matters (RQ1b) we find that while groups C and D are similar to group A, group B's perception of audit quality is significantly smaller than that of groups C and D. Also, the lack of significant difference between groups C and D suggest that mentioning audit procedures in the description of the audit matter does not affect the perception of audit quality.

Table 7

Our result differs from Hatherly et al. (1998) who, with a free-form report, find a higher perceived quality. The difference between our results and those of Hatherly et al. (1998) might be caused by the limited nature of the other information presented in our study's audit report compared to free-form report of Hatherly et al. (1998), which had four pages and had more information, including sections covering audit issues arising, adjustments booked and not booked on grounds of materiality and recommendations.¹⁵

Regarding the uniformity of assurance level for the financial statements components (*UNIFORM*), the perception is lower when the audit report includes a KAM section, moving from a mean of 5.7 for the current report (group A) down to 4.7, 4.4 and 4.9 for groups B, C, and D respectively. The coefficients on *GROUP_B*, *GROUP_C*, and *GROUP_D* are all negative and significant, except for *GROUP_D* with a p-value of 10.98%. This result holds when we include

¹⁵ Another explanation for group B's lower perception of audit quality is the distinctively greater level of attention these subjects gave to note 5, whose content is arguably of a negative nature. Thus, by association with the company's financial situation it is always possible that these subjects may have discounted the work performed by the auditor.

ATT_COMM_ALL in the model, but this time the negative effect varies with the attention to the KAM section, suggesting that it is readers who have processed the information in the KAMs section with greater attention that reach the conclusion that the level of assurance may differ across components. As indicated by the test in Panel C, the effect does not vary with the number of matters in the KAM section (B vs. C&D) or the inclusion of audit procedure (C vs. D). These results suggest that the communication of key audit matters in the audit report may have a perverse effect: increasing the expectation gap.

5. Conclusion

The results of our experiment show that communicating additional matter in the audit report significantly affects users' financial statements information acquisition. Thus, participants accessed the related financial statements disclosure in fewer steps when these matters were communicated in the auditor report. In addition, participants paid higher attention to disclosure when the matters are communicated in the auditor report. Our results suggests that the communication of key audit matters in the auditor report as proposed by the IAASB and the PCAOB provides a roadmap that help users navigate through financial statements and focus on matters highlighted by the auditor. In real life this effect might even be greater because the financial statements are more complex than those used in our experiment.

The results also show that communicating several matters in the audit report reduces the level of attention devoted to the rest of the financial statements disclosures, suggesting that the audit report proposed by the IAASB and the PCAOB could possibly lead to less attention to otherwise useful information not referred to in the report. In addition, the results show that

communicating multiple matters versus one, attenuate the effect of a key audit matter on the level of attention devoted to the part of the financial statements referred to in the audit matter.

Finally, we find that contrary to standards setters' expectations, the communication of additional matters in the audit report does not increase the perceived level of audit quality, but rather even lowers users' perception of quality in one of the settings tested. Moreover, when the audit report contains key audit matters, users perceive that the degree of assurance provided by the auditor may differ across components of the financial statements. Overall, these results show that while the communication of additional matter may have attention directing value, it may also have perverse effects: increasing the expectation gap.

Our results are based on nonprofessional users. Research on financial analysts suggests that they have fewer preconceived ideas of the importance of and relations among various financial statement items than professional analysts and that they tend to read the financial statements in the order presented (Bouwman 1982; Anderson 1988). Our results may not hold for professional analysts who have valuation models and acquire information relevant for these models using a directed-search strategy. On the other hand, the set of financial statements used in our study is shorter than what is normally found for public companies. Given that professional analysts are one of the groups that asked for more communication by the auditor, future research could examine the effect of critical/key audit matters on their information acquisition with "real" financial statements.

An additional avenue for future research is to examine more systematically the effect of the number of matters in the audit report on the user information acquisition behavior. Rather than examining one and three matters as in this study, these studies could use a complete factorial

design varying both the nature of the matter and the number of matters. This design will allow separating the effect of the matter and the number of matter.

Appendix A Audit reports presented in the four groups

Group A – base report (identical for all groups)

INDEPENDENT AUDITOR’S REPORT

To the Shareholders of Alpha Industries Inc.

We have audited the accompanying financial statements of Alpha Inc. which comprise the balance sheets as at January 31, 2013 and January 31, 2012 and the statements of earnings and cash flows for the years then ended, and the related notes, which comprise a summary of significant accounting policies and other explanatory information.

Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian Accounting Standards for Private Enterprises, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of Alpha Inc. as at January 31, 2013 and January 31, 2012 and the results of its operations and cash flows for the years then ended in accordance with Canadian Accounting Standards for Private Enterprises.

Signature

City, Date

For groups B to D, the emphasis paragraph(s) or auditor commentaries are inserted after the opinion paragraph and before the signature.

Group B condition – 1 audit matter

Auditor commentary

We draw attention to Note 5 to the financial statements, which describes the facts indicating that the company is facing a liquidity risk. Our opinion is not qualified in respect of this matter.

Group C condition – 3 audit matters

Auditor commentaries

We draw attention to the following notes:

Long-lived asset impairment

Note 1k to the financial statements, which describes accounting policies relating to the impairment of long-lived assets and the fact that the company has recorded impairment losses for fiscal years 2013 and 2012. Our opinion is not qualified in respect of this matter.

Liquidity risk

Note 5 to the financial statements, which describes the facts indicating that the company is facing a liquidity risk as it was in default regarding some financial ratios related to its credit facilities and certain debts. Our opinion is not qualified in respect of this matter.

Contingency

Note 14 to the financial statements which the existence of a material contingency related to litigation involving the company. No adjustment has been made to record this contingency. Our opinion is not qualified in respect of this matter.

Group D condition – 3 audit matters with audit procedures

Key audit matters

This section of our auditor's report describes matters that, in our professional judgment, were of most significance in our audit of the financial statements.

Long-lived asset impairment

The company performs long-lived assets impairment tests when there is evidence of loss of value. The company has recorded impairment losses for fiscal years 2013 and 2012. In the course of our audits, we have reviewed the procedures and methodologies used by the company as well as the assumptions used by Management. Note 1k to the financial statements describes the information related to the impairment of long-lived assets.

Liquidity risk

The company is facing a liquidity risk as it was in default regarding some financial ratios related to its credit facilities and certain debts. In the course of our audits, we have, among other things, obtained confirmation from the creditor with respect to a waiver agreement. Note 5 to the financial statements describes the information related to the liquidity risk.

Contingency

The company is facing a material contingency related to litigation. No adjustment has been made to record this contingency. In the course of our audits we have evaluated the reasonableness of the elements on which is based this conclusion and examined that the note to the financial statements provides the appropriate information. Note 14 to the financial statements describes this contingency.

Further Information Relevant to Understanding Key Audit Matters

This information is intended to enhance users' understanding of our audit of the financial statements. Our opinion is not modified with respect to any of these matters, and 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. Reading our auditor's report is not intended to be a substitute for reading the financial statements, including the notes, in their entirety.

Appendix B Notes to the financial statements referred to in the audit reports

Note 1k) Impairment of long-lived assets

Note 1k is part of note 1 and presented on the same HTML page.

When events or circumstances indicate that impairment may exist, the Company reviews the carrying value of long-lived assets. Impairment exists when the carrying value of a long-lived asset or group of long-lived assets is not recoverable and exceeds the undiscounted future cash flows expected from its use and eventual disposition of the asset or group of assets. The amount of any impairment loss is the excess of the carrying value over fair value. The fair value of long-lived assets is determined based on discounted future cash flows. During fiscal 2013, impairment losses totaling \$ 921,860 were found in this regard (\$ 431,013 in 2012).

Intangible assets whose useful life is indefinite are tested for impairment on an annual basis or more frequently if events or circumstances indicate that impairment. Impairment exists when the carrying value of the intangible asset exceeds its fair value. During fiscal 2013, impairment losses totaling \$ 125,881 were found in this area (\$ 14,050 in 2012).

Note 5 Risks to liquidity and financial ratios

Over the past few years, the company has faced several operating challenges arising including the economic crisis, which resulted in lower revenue and gross margins and radiation.

Under the terms related to the credit facility described in Note 6 and certain liabilities described in note 7, the company is committed to meeting certain conditions as well as financial ratios. Dated January 31, 2013, the company was in default for certain financial ratios on its credit facilities and certain debts totaling \$ 16,189,452. However, it has obtained waivers of the financial institution concerned. She also obtained an extension of the maturity of certain debts totaling \$8,595,974 until August 31, 2014 and changes and flexibility applicable to credit facilities and financial ratios for these debts. Also, the company will have to renegotiate the credit facilities and debt totaling \$8,595,974 expiring in August 2014. There is no assurance that such financing will be renewed at maturity in August 2014 or the financial ratios will respected at that date.

Note 14 Contingencies

In December 2011, the company was named as a defendant in a legal action for patent infringement by a competitor. It alleges that Alpha inc. infringed one of its patents by manufacturing and selling patented composite materials. The competitor claims to have suffered financial damages and claims more than \$10 million in damages. The issues raised in the complaint are viewed by society as unfounded and unproven allegations will be vigorously contested, although no assurance can be given as to the outcome of these proceedings. The Company believes it has strong defenses to this request and therefore has not recorded any related liability.

References

- Anderson, M. J. 1988. A comparative analysis of information search and evaluation behavior of professional and non-professional financial analysts. *Accounting, Organizations and Society* 13 (5): 431-446.
- Armstrong, T., and B. Olatunji. 2009. What They See is What You Get: Eye Tracking of Attention in the Anxiety Disorders. *Psychological Science Agenda*.
- Arnott, D. 2006. Cognitive biases and decision support systems development: a design science approach. *Information Systems Journal* 16 (1): 55-78.
- Bédard, J., and N. Gonthier Besacier. 2013. Le paragraphe de justification des appréciations dans le rapport des commissaires aux comptes. Partie 2 : Contenu et lisibilité - théorie et pratique. *Revue française de comptabilité* (471): 2-6.
- Birnberg, J. G., and M. D. Shields. 1984. The role of attention and memory in accounting decisions. *Accounting, Organizations and Society* 9 (3-4): 365-382.
- Bouwman, M. J. 1982. The use of accounting information: Expert vs. novice behavior. In *Decision Making: An Interdisciplinary Inquiry*, ed. Ungson, G. and D. Braunstein, 134-167. Boston. MA: Kent.
- CFA Institute. 2011. Usefulness of the Independent Auditor's Report: Survey to the CFA Institute Financial Reporting Survey Pool.
- Church, B. K., S. M. Davis, and S. A. McCracken. 2008. The Auditor's Reporting Model: A Literature Overview and Research Synthesis. *Accounting Horizons* 22 (1): 69-90.
- Eppler, M. J., and J. Mengis. 2004. The Concept of Information Overload: A Review of Literature from Organization Science, Accounting, Marketing, MIS, and Related Disciplines. *The Information Society* 20 (5): 325-344.
- European Financial Reporting Advisory Group. 2014. Getting a Better Framework Complexity Bulletin. Brussel: EFRAM.
- Footprint Consultants. 2011. Study of the perception of statutory auditors' justification of assessments. Paris: Footprint Consultants.
- Gold, A., U. Gronewold, and C. Pott. 2012. The ISA 700 Auditor's Report and the Audit Expectation Gap Do Explanations Matter? *International Journal of Auditing* 16 (3): 286-307.
- Goldberg, J. H., and X. P. Kotval. 1999. Computer interface evaluation using eye movements: methods and constructs. *International Journal of Industrial Ergonomics* 24 (6): 631-645.
- Hatherly, D., T. O. M. Brown, and J. Innes. 1998. Free-form reporting and perceptions of the audit. *The British Accounting Review* 30 (1): 23-38.
- Hatherly, D., J. Innes, and T. Brown. 1991. The Expanded Audit Report—An Empirical Investigation. *Accounting and Business Research* 21 (84): 311-319.
- Humphrey, C., P. Moizer, and S. Turley. 1992. The audit expectations gap—plus ça change, plus c'est la même chose? *Critical Perspectives on Accounting* 3 (2): 137-161.
- Hunton, J. E., and R. A. McEwen. 1997. An assessment of the relation between analysts' earnings forecast accuracy, motivational incentives and cognitive information search strategy. *The Accounting Review*: 497-515.
- International Auditing and Assurance Standards Board. 2011. Consultation Paper: Enhancing the Value of Auditor Reporting: Exploring Options for Change.
- . 2012. *Invitation to Comment: Improving the Auditor's Report*. New York, NY: International Federation of Accountants.

- . 2013. *Exposure Draft, Reporting on Audited Financial Statements: Proposed New and Revised International Standards on Auditing (ISAs)*. New York: International Federation of Accountants.
- Jacob, R. J., and K. S. Karn. 2003. Eye tracking in human-computer interaction and usability research: Ready to deliver the promises. In *Mind's Eyes: Cognitive and Applied Aspects of Eye Movements*, ed. Radach, R., J. Hyona and H. Deubel, 573-605. Oxford: Elsevier.
- Jacob, R. J. K. 1995. Eye Tracking in Advanced Interface Design. In *Virtual Environments and Advanced Interface Design*, 258-288. New York, NY: Oxford University Press.
- KPMG. 2011. *Disclosure overload and complexity: hidden in plain sight*. Morristown, N.J.: Financial Executives Research Foundation, Inc.
- Lee, Y.-J. 2012. The Effect of Quarterly Report Readability on Information Efficiency of Stock Prices. *Contemporary Accounting Research* 29 (4): 1137-1170.
- Long, J. S., and L. H. Ervin. 2000. Using Heteroscedasticity Consistent Standard Errors in the Linear Regression Model. *The American Statistician* 54 (3): 217-224.
- Maines, L. A., and L. S. McDaniel. 2000. Effects of Comprehensive-Income Characteristics on Nonprofessional Investors' Judgments: The Role of Financial-Statement Presentation Format. *The Accounting Review* 75 (2): 179-207.
- Mayer, R. E. 2001. *Multimedia Learning*. New York: Cambridge University Press.
- Mayer, R. E., and R. Moreno. 2003. Nine Ways to Reduce Cognitive Load in Multimedia Learning. *Educational Psychologist* 38 (1): 43-52.
- McEwen, R. A., and J. E. Hunton. 1999. Is Analyst Forecast Accuracy Associated with Accounting Information Use? *Accounting Horizons* 13 (1): 1-16.
- Miller, B. P. 2010. The Effects of Reporting Complexity on Small and Large Investor Trading. *The Accounting Review* 85 (6): 2107-2143.
- Miller, G. A. 1962. Information input overload. In *Self Organizing System*, ed. Yovits, M. C. Washington, DC: Spartan Books.
- Miller, J. R., and L. M. Smith. 2002. The Effects of the Level of Assurance, Accounting Firm, Capital Structure, and Bank Size on Bank Lending Decisions. *Journal of Accounting, Auditing & Finance* 17 (1): 51-71.
- Mock, T. J., J. Bédard, P. J. Coram, S. M. Davis, R. Espahbodi, and R. C. Warne. 2013. The Audit Reporting Model: Current Research Synthesis and Implications. *Auditing: A Journal of Practice & Theory* 32 (Supplement 1): 323-351.
- Pieters, R., and M. Wedel. 2007. Informativeness of eye-movements for visual marketing: Six cornerstones. In *Visual Marketing: From Attention to Action*, ed. Wedel, M. and R. Pieters, 43-71: Taylor & Francis.
- Poole, A., and L. J. Ball. 2006. Eye tracking in human-computer interaction and usability research: current status and future prospects. In *Encyclopedia of Human Computer Interaction*, edited by Ghaoui, C. E. Hershey, PA: Idea Group.
- Public Company Accounting Oversight Board. 2013. Proposed Auditing Standards – The Auditor's Report on an Audit of Financial Statements when the Auditor Expresses an Unqualified Opinion; The Auditor's Responsibilities Regarding Other Information in Certain Documents Containing Audited Financial Statements and the Related Auditor's Report; and Related Amendments to PCAOB Standards. PCAOB Release No. 2013-005. Washington, D.C.
- Rayner, K. 1998. Eye movements in reading and information processing: 20 years of research. *Psychological Bulletin* 124 (3): 372-422.

- Savolainen, R. 2007. Filtering and withdrawing: strategies for coping with information overload in everyday contexts. *Journal of Information Science* 33 (5): 611-621.
- SRI International. 1987. Investor information needs and the annual report. Morristown, N.J.
- Viger, C., R. Belzile, and A. A. Anandarajan. 2008. Disclosure versus Recognition of Stock Option Compensation: Effect on the Credit Decisions of Loan Officers. *Behavioral Research In Accounting* 20 (1): 93-113.
- Wedel, M., and R. Pieters. 2007. Informativeness of eye movements for visual marketing: Six cornerstones. In *Visual Marketing: From Attention to Action*, 43-71: Lawrence Erlbaum.
- You, H., and X.-j. Zhang. 2009. Financial reporting complexity and investor underreaction to 10-K information. *Review of Accounting Studies* 14 (4): 559-586.

TABLE 1 DEFINITIONS OF VARIABLES

PANEL A: eye-metric, navigation and subject characteristic variables

Dependent variables:

Access measures

- CLICKS2_N#*
(unit = page count) = *URL clicks to first fixation on note #*: number of page-visits to accessible URL pages during the task (i.e., financial statements including notes and auditor's report), before the first fixation is recorded on the content area (i.e., text/numbers area right of the navigation menu) of notes # 1k, 5 or 14 respectively. Multiple, non-continuous visits to the same URL page are added. Page-visits are counted after the subject leaves the auditor's report page displayed at the beginning of the task. Visits to the task page are excluded.^b
- TTFN_N#*
(unit = milliseconds) = *Time to first fixation on note #*: difference between the recorded time stamp from after the subject finishes reading the auditor's report (i.e., after clicking on "continue" on the first display of the auditor's report) to the recorded time of the subject's first fixation on a particular area of interest.

Attention measures

- ATT_N#*
(unit = fixation count) = *Attention to note #*: total number of fixations recorded on the content area of note # 1-k, 5 or 14 respectively over the duration of the first task.
- ATT_OTHERNOTES*
(unit = fixation count) = *Attention to all other notes*: the sum of the total number of fixations recorded on the content area of all the financial statement notes other than 1, 5 and 14 over the duration of the first task.
- ATT_FS*
(unit = fixation count) = *Attention to financial statements*: the sum of the total number of fixations recorded on the content area of the three financial statements (balance sheet, income statement and cash flows statement) over the duration of the first task.
- ATT_OTHER_FULLFS*
(unit = fixation count) = *Attention to full set of financial statements*: the sum *ATT_OTHERNOTES* and *ATT_FS* as defined above.
- URLVISITS_OTHERNOTES*
(unit = page count) = *URL visits to all other notes*: sum of all page-visits made during the task on all financial statement notes other than 1, 5 and 14. Multiple, non-continuous visits to the same URL page are added. Visits to the task page are excluded.^b
- URLVISITS_FS*
(unit = page count) = *URL visits to financial statements*: sum of all page-visits made during the task on all financial statement notes other than 1, 5 and 14. Multiple, non-continuous visits to the same URL page are added. Visits to the task page are excluded.^b
- URLVISITS_OTHER_FULLFS*
(unit = page count) = *URL visits to full set of financial statements*: the sum *URLVISITS_OTHERNOTES* and *URLVISITS_FS* as defined above.
-

TABLE 1 (continued)

Independent variables:

Experimental variables

<i>GROUP_x</i> (unit = 0/1)	=	equal to 1 if subject is assigned to group <i>x</i> , 0 otherwise; where <i>x</i> stands for group <i>B</i> (1-KAM), <i>C</i> (3-KAM) or <i>D</i> (3-KAM + audit procedures) respectively.
<i>ATT_COMM_N#</i> (unit = fixation count by word)	=	<i>Attention to auditor's report comment to note #</i> : total number of fixations recorded on the auditor comment paragraph referring to note # 1-k, 5 or 14 respectively over the duration of the first task, scaled by the number of words in the paragraph.
<i>ATT_COMM_ALL</i> (unit = fixation count by word)	=	<i>Attention to the full area of the KAM section</i> : total number of fixations recorded on the full KAM section of the auditor's report, including introduction and additional information (group D), over the duration of the first task, scaled by the number of words in the paragraph.

Control variables

<i>READING_CONTROL</i> (unit = milliseconds)	=	<i>Reading time control</i> : sum of the time spent on the "General instructions" page" and the "Task description and context" page prior to accessing the auditor's report. These pages are accessed sequentially without possibility of returning, prior to commencing the task. Time recorded from system time stamps.
<i>ATT_AR_3PAR</i> (unit = fixation count)	=	<i>Attention to the full area of the 3 common paragraphs of the auditor's report</i> : total number of fixations recorded on the full first 3 paragraphs of the auditor's report, over the duration of the first task.
<i>PROG_YEAR</i> (unit = 0/1)	=	equal to 1 if subject is enrolled in their second year of the Graduate accounting diploma program or equivalent Masters of accounting program, 0 otherwise.
<i>MALE</i> (unit = 0/1)	=	equal to 1 if subject is a male, 0 if female.

Notes:

^a All variables are subject specific

^b Very short, non-attentive, URL visits are excluded from the count to limit the effect of noise/errors in subjects navigation ("clicks") across URLs, due in part because the title of notes are not displayed in the navigation window. Visits to URL pages with no recorded fixations on the main content area or with total fixation duration below 500 milliseconds are excluded from the count ("micro-visits"). All results are robust without this correction.

TABLE 1 (continued)

PANEL B: audit perception measures

UNIFORM

Uniformity of assurance level:

Subject's perception of the uniformity of the assurance level provided by the auditor, assessed from subject's answer on a 7-point scale (1 = strongly disagree to 7 = strongly agree) to the following post-task question:

- “The level of assurance provided by the auditor is the same for all the financial statements components (balances and disclosures)”
-

AUDQUAL

Audit quality factor: (Cronbach's alpha = 0.857)

Subject's perceived level of audit quality in relation to the audit performed on the financial statements presented. Factor obtained using factor analysis to reduce to one factor subjects' answers on a 7-point scale (1 = strongly disagree to 7 = strongly agree) to the following six post-task questions:

- “Alpha's audited financial statements are free from material misstatement, whether due to fraud or error”
 - “The level of assurance provided by the audit of the financial statements is high”
 - “Alpha's auditor work is entirely adequate”
 - “The amounts and disclosures in the audited financial statements of Alpha are entirely credible”
 - “The audit report add value to Alphas financial statements”
 - “Alpha's financial statements are in accordance with private entity GAAP”
-

TABLE 2 DESCRIPTIVE STATISTICS

	n	Mean	Std. Dev.	Q1	Median	Q3
<u>Dependent variables:</u>						
<i>Access measures</i>						
<i>CLICKS2_N1k</i>	82	10.4	7.5	5.0	8.0	14.0
<i>CLICKS2_N5</i>	83	12.1	8.6	7.0	10.0	16.0
<i>CLICKS2_N14</i>	92	23.6	9.9	18.0	23.0	31.0
<i>TTFN_N1k</i> (in '000 ms.)	82	326.4	218.0	186.8	272.1	425.4
<i>TTFN_N5</i> (in '000 ms.)	83	349.9	228.6	186.1	355.8	473.5
<i>TTFN_N14</i> (in '000 ms.)	92	702.9	327.2	494.6	685.2	941.1
<i>Attention measures</i>						
<i>ATT_N1k</i>	98	51.9	57.0	2.0	26.5	92.0
<i>ATT_N5</i>	98	108.7	72.8	73.0	101.5	150.0
<i>ATT_N14</i>	98	61.6	31.1	48.0	63.0	77.0
<i>ATT_OTHERNOTES^b</i>	98	985.0	466.8	694.0	951.5	1228.0
<i>ATT_FS</i>	98	743.0	281.7	548.0	713.0	903.0
<i>ATT_OTHER_FULLFS</i>	98	1728.1	646.3	1341.0	1695.5	2069.0
<i>URLVISITS_OTHERNOTES</i>	98	19.0	8.3	14.0	19.0	22.0
<i>URLVISITS_FS</i>	98	13.5	6.2	9.0	13.0	17.0
<i>URLVISITS_OTHER_FULLFS</i>	98	32.5	12.3	23.0	31.0	39.0
<i>Audit perception measures</i>						
<i>UNIFORM</i>	98	4.93	2.22	3.00	6.00	7.00
<i>AUDQUAL</i>	98	0.00	0.92	-0.60	0.13	0.70
<u>Independent variables:</u>						
<i>Experimental variables</i>						
<i>ATT_COMM_N1k</i> (fix. by word)	98	0.366	0.460	0.000	0.167	0.634
<i>ATT_COMM_N5</i> (fix. by word)	98	0.457	0.376	0.000	0.455	0.662
<i>ATT_COMM_N14</i> (fix. by word)	98	0.371	0.432	0.000	0.124	0.659
<i>ATT_COMM_ALL</i> (fix. by word)	98	0.473	0.377	0.000	0.519	0.696
<i>Control variables</i>						
<i>READING_CONTROL</i> (in '000 ms.)	98	100.4	26.0	83.7	97.5	114.0
<i>ATT_AR_3PAR</i>	98	198.2	86.7	146.0	198.0	259.0
<i>PROG_YEAR</i> (%)	98	62.2%				
<i>MALE</i> (%)	98	61.2%				

Notes:

Variables are as defined in Table 1.

^a Number of observations is smaller than the number of participants for the access measures as no access measure is available for subjects with no fixations recorded on the content area of a specific note (i.e., “note not seen”).

TABLE 3 ATTENTION MEASURES ON READING SPECIFIC AREAS OF INTERESTS OF THE AUDITOR’S REPORT

Panel A: average total fixation duration (count) on reading the auditor’s report on individual sections

Sections (number of words for scaling)	Group A (standard)		Group B (1-KAM)		Group C (3-KAM)		Group D (3-KAM + proc.)		All groups	
	Total ^a	By words ^b	Total ^a	By words ^b	Total ^a	By words ^b	Total ^a	By words ^b	Total ^{a,c}	By words ^b
<u>Common sections</u>										
Introduction (65)	15702 (45)	242 (0.70)	11484 (32)	177 (0.49)	13431 (39)	207 (0.60)	12227 (38)	188 (0.59)	13289 (39)	204 (0.60)
Management responsibility (60)	11731 (36)	196 (0.60)	8920 (25)	149 (0.42)	10992 (33)	183 (0.55)	10431 (31)	174 (0.52)	10580 (32)	176 (0.53)
Auditor's responsibility (232)	33764 (98)	146 (0.42)	26991 (73)	116 (0.31)	35053 (98)	151 (0.42)	32125 (92)	138 (0.40)	32154 (91)	139 (0.39)
Opinion (67)	12253 (39)	183 (0.58)	8920 (25)	133 (0.37)	9173 (26)	137 (0.39)	8665 (26)	129 (0.40)	9804 (29)	146 (0.44)
<u>KAM sections</u>										
Introduction (C = 10, D = 31)					3641 (11)	364 (1.12)	6264 (18)	202 (0.58)		197 (0.59)
Note 1-k (C = 55, D = 93)					18076 (46)	329 (0.84)	20416 (55)	220 (0.60)		190 (0.50)
Note 5 (B = 65, C = 52, D = 67)			13769 (36)	212 (0.55)	13315 (33)	256 (0.64)	18113 (45)	270 (0.67)		248 (0.62)
Note 14 (C = 44, D = 68)					12453 (34)	283 (0.77)	17179 (47)	253 (0.69)		186 (0.50)
Additional information (D = 102)							15711 (46)	154 (0.45)		53 (0.16)

TABLE 3 (continued)

Panel B: average total fixation duration (count) on reading the auditor’s report - main areas and total

Sections (number of words for scaling)	Group A (standard)		Group B (1-KAM)		Group C (3-KAM)		Group D (3-KAM + proc.)		All groups	
	Total ^a	By words ^b	Total ^a	By words ^b	Total ^a	By words ^b	Total ^a	By words ^b	Total ^{a,c}	By words ^b
Total - common sections (428) ^{d,e}	75717 (227)	177 (0.53)	58611 (162)	137 (0.38)	69897 (200)	163 (0.47)	65940 (198)	154 (0.46)	67898 (198)	159 (0.46)
Total –KAM sections^d (B = 65, C = 161, D = 361)			13769 (36)	212 (0.55)	47564 (125)	295 (0.77)	79233 (216)	219 (0.60)		244 (0.64)
Total all sections (B = 493, C = 589, D = 789) ^e	75717 (227)	177 (0.53)	72380 (198)	147 (0.40)	117462 (325)	199 (0.55)	145173 (414)	184 (0.53)		178 (0.51)

Notes:

^a Total fixation duration in ms. (1 minute = 60,000 ms.); fixation count in parenthesis. No subject were recorded with missing fixations on any section of the auditor’s report; overall, eye metric measures confirm that **all subjects** in groups B, C and D have seen and read with minimum attention the auditor commentaries in the report.

^b Total fixation duration (count) scaled by the number of words in the area of interest.

^c Unscaled (total) average total fixation duration (count) across all groups is irrelevant for KAM sections as the size (number or words in) of the areas of interest differs across report format; only the measure scaled by words are reported for the KAM sections.

^d Values are slightly above the sum of measures per individual sections in Panel A as the encompassing area of interest includes spacing between the areas of interests of individual section indicated in Panel A. Further, the common 3-paragraph area of interest includes the title of the auditor’s report.

^e Word count of the common sections area of interest is increased by 4 to account for the inclusion of the title of the auditor’s report in the area.

TABLE 4 RESULTS FOR ACCESS SEQUENCE TO THE NOTES REFERRED IN THE AUDITOR'S REPORT

PANEL A: Mean values of dependent variables per group (*CLICKS2_N# and TIFF_N#*)

		<u>NOTE 5</u>		<u>NOTE 14</u>		<u>NOTE 1k</u>	
		<i>CLICKS2</i>	<i>TIFF</i>	<i>CLICKS2</i>	<i>TIFF</i>	<i>CLICKS2</i>	<i>TIFF</i>
GROUP A	(standard)	17.1 (n = 19)	472865	27.2 (n = 24)	824941	11.4 (n = 22)	343412
GROUP B	(1-KAM)	8.9 (n = 21)	290535	23.6 (n = 21)	747164	14.3 (n = 16)	475764
GROUP C	(3-KAM)	11.6 (n = 21)	332786	23.5 (n = 23)	683476	8.2 (n = 22)	261926
GROUP D	(3-KAM + proc.)	11.5 (n = 21)	316756	20.3 (n = 24)	560837	8.5 (n = 22)	263581

PANEL B: OLS parameter estimates (standard errors in parentheses)^a

	Dep. var.:	<u>NOTE 5</u>		<u>NOTE 14</u>		<u>NOTE 1k</u>	
		<i>CLICKS2</i>	<i>TIFF</i>	<i>CLICKS2</i>	<i>TIFF</i>	<i>CLICKS2</i>	<i>TIFF</i>
		Exp.	(1)	(2)	(3)	(4)	(5)
Test variables							
<i>ATT_COMM_N#</i> (in ms.)	H1a (-)	0.378 (3.187)	51358 (122428)	-7.398 (5.931)	-207572 (177462)	-3.232** (1.578)	-137997*** (56284)
<i>GROUP C</i> (3-KAM)	H1a (-)	-5.745* (3.556)	-163356* (108740)	2.194 (5.245)	72576 (159157)	0.022 (3.018)	63990 (79271)
<i>GROUP D</i> (3-KAM + proc.)	H1a (-)	-5.800** (3.195)	-187037** (99780)	-1.706 (4.654)	-88913 (140981)	-0.444 (2.347)	12621 (69778)
<i>GROUP B</i> (1-KAM)	H1a (-)	-8.343* (3.197)	-206898** (96377)				
<i>GROUP B</i> (1-KAM)	?			-3.349 (2.985)	-37865 (97827)	3457 (2941)	134356 (76890)
Control variables							
<i>READING_CONTROL</i> (in ms.)	+		0.926 (1.213)		3.949*** (1.483)		2.362** (1.180)
<i>PROG_YEAR</i>	?	0.972 (2.180)	1761 (55820)	2.830 (2.110)	28738 (74498)	0.760 (1.734)	3299 (48927)
<i>MALE</i>	?	0.112 (1.907)	-12640 (47006)	-0.497 (2.150)	-28680 (67258)	0.008 (1.665)	24174 (46580)
Intercept	?	16.357*** (2.567)	381793** (153410)	25.611*** (2.757)	394776** (169873)	10.375*** (2.268)	73801 (130661)

TABLE 4 – PANEL A (continued)

Model statistics						
Observations	83	83	92	92	82	82
F-value	1.68	1.34	1.69	3.01***	1.60	2.83**
Adj. R-squared	4.7%	2.8%	4.4%	13.4%	4.2%	13.6%
VIF	<2.95	<3.27	<3.91	<4.20	<3.14	<3.54

PANEL B: Chi-square statistics of joint tests on group fixed effect coefficients
(p-values in parentheses)^a

Dep. var.:	Exp.	NOTE 5		NOTE 14		NOTE 1k	
		<i>CLICKS2</i>	<i>TTF</i>	<i>CLICKS2</i>	<i>TTF</i>	<i>CLICKS2</i>	<i>TTF</i>
		(1)	(2)	(3)	(4)	(5)	(6)
H1a: (<i>C & D</i>) < 0	sign.	3.41* (p = 0.065)	3.22* (p = 0.073)	0.00 (p = 0.959)	0.00 (p = 0.954)	0.38 (p = 0.535)	0.32 (p = 0.569)
H1a: (<i>B & C & D</i>) < 0 (for note 5 only)	sign.	4.92** (p = 0.026)	4.06** (p = 0.044)				
H3: (<i>C & D</i>) > <i>B</i> (for note 5 only)	sign.	1.46 (p = 0.227)	0.24 (p = 0.626)				

Notes:

Variables are as defined in Table 1.

^a All *Chi*-square statistics and p-values are based on HC3 heteroscedasticity-consistent standard errors (reported in parentheses) appropriate for small sample sizes as per Long and Ervin (2000).

*, **, *** Significant at 10 percent, 5 percent, and 1 percent levels, respectively; one-tailed for signed expectations and two-tailed otherwise.

TABLE 5 RESULTS FOR THE ATTENTION TO THE NOTES REFERRED IN THE AUDITOR'S REPORT

PANEL A: Mean values of dependent variables per group (*ATT_N#*)

		<i>n</i>	<i>NOTE 5</i>	<i>NOTE 14</i>	<i>NOTE 1k</i>
GROUP A	(standard)	26	86.2	57.7	56.5
GROUP B	(1-KAM)	22	149.5	69.8	31.7
GROUP C	(3-KAM)	25	100.7	61.6	65.5
GROUP D	(3-KAM + proc.)	25	104.3	58.3	51.5

PANEL B: OLS parameter estimates (standard errors in parentheses)^a

Variables	Exp.	<i>NOTE 5</i>	<i>NOTE 14</i>	<i>NOTE 1k</i>
		(1)	(2)	(3)
Test variables				
<i>ATT_COMM_N#</i> (in ms.)	H1b (+)	58.15** (26.59)	21.41** (11.37)	40.92 (45.61)
<i>GROUP C</i> (3-KAM)	H1b (?)	-15.56 (24.35)	-7.62 (11.18)	-18.71 (34.58)
<i>GROUP D</i> (3-KAM + proc.)	H1b (?)	-10.01 (25.04)	-7.83 (11.72)	-18.84 (29.53)
<i>GROUP B</i> (1-KAM)	H1b (?)	28.62 (23.39)		
<i>GROUP B</i> (1-KAM)	H2 (-)		10.11 (8.72)	-27.43** (14.32)
Control variables				
<i>ATT_OTHERNOTES</i> (in ms.)	+	0.048*** (0.015)	0.028*** (0.007)	0.046*** (0.014)
<i>PROG_YEAR</i>	?	13.86 (14.93)	-5.58 (6.29)	7.00 (11.57)
<i>MALE</i>	?	22.19* (13.13)	9.24 (5.73)	9.58 (10.23)
Intercept	?	12.74 (19.62)	25.25** (9.86)	-2.37 (16.38)
Model statistics				
Observations		98	98	98
F-value		5.80***	5.08***	4.95***
Adj. R-squared		25.7%	22.7%	22.2%
VIF		< 3.11	< 3.81	< 3.55

TABLE 5 (continued)**PANEL C: *Chi*-square statistics of joint tests on group fixed effect coefficients
(p-values in parentheses)^a**

Tests	<i>ATT_N5</i> (1)	<i>ATT_N14</i> (2)	<i>ATT_N1k</i> (3)
H1b: $(C \ \& \ D) = A$	0.32 (p = 0.574)	0.51 (p = 0.473)	0.36 (p = 0.546)
H1b: $(B \ \& \ C \ \& \ D) = A$ (for note 5 only)	0.002 (p = 0.963)		
H3: $(C \ \& \ D) < B$ (for note 5 only)	8.51 ^{***} (p = 0.004)		

Notes:

Variables are as defined in Table 1.

^a All *Chi*-square statistics and p-values are based on HC3 heteroscedasticity-consistent standard errors (reported in parentheses) appropriate for small sample sizes as per Long and Ervin (2000).

*, **, *** Significant at 10 percent, 5 percent, and 1 percent levels, respectively; one-tailed for signed expectations and two-tailed otherwise.

TABLE 6 EFFECT OF KAM ON OTHER COMPONENTS OF THE FINANCIAL STATEMENTS

PANEL A: Mean values of dependent variables per group

Dep. Var.	<u>FIXATION COUNT</u>			<u>URL VISITS</u>		
	<i>Notes</i>	<i>Statements</i>	<i>Full FS</i>	<i>Notes</i>	<i>Statements</i>	<i>Full FS</i>
<i>GROUP A</i> (standard)	1069	825	1894	20.6	15	35.6
<i>GROUP B</i> (1-KAM)	1125	801	1926	21.4	13.4	34.8
<i>GROUP C</i> (3-KAM)	926	691	1617	17.7	12.6	30.3
<i>GROUP D</i> (3-KAM + pr.)	834	658	1492	16.6	12.9	29.5

PANEL B: Regression results for subjects' attention to the other components of the financial statements (standard errors in parentheses)^a

Dep. Var.	Exp.	<u>FIXATION COUNT</u>			<u>URL VISITS</u>		
		<i>Notes</i>	<i>Statements</i>	<i>Full FS</i>	<i>Notes</i>	<i>Statements</i>	<i>Full FS</i>
		(1)	(2)	(3)	(4)	(5)	(6)
Test variables							
<i>ATT_COMM_ALL</i> (in '000 ms.)	H2 (-)	420.2 (331.0)	175.7 (175.6)	595.9 (465.8)	1.015 (3.764)	2.491 (3.477)	3.507 (6.663)
<i>GROUP B</i> (1-KAM)	H2 (-)	-145.0 (241.9)	-110.4 (137.9)	-255.4 (326.7)	0.152 (3.341)	-3.105 (2.674)	-2.953 (5.224)
<i>GROUP C</i> (3-KAM)	H2 (-)	-405.2* (265.5)	-230.7* (147.9)	-635.9** (359.3)	-3.316 (3.848)	-4.192* (3.227)	-7.508 (6.083)
<i>GROUP D</i> (3-KAM + proc.)	H2 (-)	-466.1** (240.2)	-266.1** (125.3)	-732.2** (332.5)	-4.665* (3.490)	-3.712* (2.791)	-8.377* (5.551)
Control variables							
<i>READ_CONTROL</i> (in ms.)	+	0.005** (0.002)	0.002** (0.001)	0.007*** (0.003)			
<i>PROG_YEAR</i>	?	-71.1 (100.6)	-75.4 (55.6)	-146.5 (133.5)	-1.918 (1.909)	-1.198 (1.293)	-3.116 (2.724)
<i>MALE</i>	?	115.4 (95.1)	177.2*** (56.5)	292.6** (124.5)	3.668** (1.751)	1.756 (1.313)	5.423** (2.588)
Intercept	?	545.8* (283.5)	523.2*** (121.0)	1 069.0*** (352.8)	19.500*** (2.777)	14.695*** (1.565)	34.196*** (3.709)
Model statistics							
Observations		98	98	98	98	98	98
F-value		3.35***	3.98***	4.91***	1.94*	0.97	1.91*
Adj. R-squared		14.5%	17.7%	22.0%	5.5%	-0.2%	5.3%
VIF		< 4.28	< 4.28	< 4.28	< 3.87	< 3.87	< 3.87

TABLE 6 (continued)

PANEL C: *Chi*-square statistics of joint tests on group fixed effect coefficients
(p-values in parentheses)^a

	<u><i>FIXATION COUNT</i></u>			<u><i>URL VISITS</i></u>		
	<i>Notes</i>	<i>Statements</i>	<i>Notes</i>	<i>Statements</i>	<i>Notes</i>	<i>Statements</i>
	(1)	(2)	(3)	(4)	(5)	(6)
H2: (B & C & D) < 0	2.01 (p = 0.156)	2.47 (p = 0.116)	2.76* (p = 0.097)	0.63 (p = 0.426)	1.88 (p = 0.170)	1.47 (p = 0.226)
H2: (C & D) < 0	3.12* (p = 0.078)	3.54* (p = 0.060)	4.08** (p = 0.043)	1.28 (p = 0.257)	1.89 (p = 0.169)	2.01 (p = 0.156)

Notes:

Variables are as defined in Table 1.

^a All *Chi*-square statistics and p-values are based on HC3 heteroscedasticity-consistent standard errors (reported in parentheses) appropriate for small sample sizes as per Long and Ervin (2000).

*, **, *** Significant at 10 percent, 5 percent, and 1 percent levels, respectively; one-tailed for signed expectations and two-tailed otherwise.

TABLE 7 EFFECT OF KAM ON USERS' PERCEPTION OF THE AUDIT

PANEL A: Mean values of dependent variables per group

		UNIFORM (1 to 7 scale)	AUDQUAL (std. factor score from -2.90 to 1.34)
GROUP A	(standard)	5.7	0.27
GROUP B	(1-KAM)	4.7	-0.51
GROUP C	(3-KAM)	4.4	0.10
GROUP D	(3-KAM + proc.)	4.9	0.07

PANEL B: Regression parameter estimates
(standard errors in parentheses)^a

	Exp.	UNIFORM		AUDQUAL	
		Group fix. effect	Att. + Gr. fix. eff.	Group fix. effect	Att. + Gr. fix. eff.
		(1)	(2)	(3)	(4)
Test variables					
<i>ATT_COMM_ALL</i> (in '000 ms.)	RQ1a		-1.999** (1.170)		-0.131 (0.603)
<i>GROUP B</i> (1-KAM)	RQ1a	-1.113* (0.636)	0.097 (0.793)	-0.846*** (0.268)	-0.767** (0.431)
<i>GROUP C</i> (3-KAM)	RQ1a	-1.495** (0.534)	0.094 (1.052)	-0.229 (0.246)	-0.125 (0.501)
<i>GROUP D</i> (3-KAM + proc.)	RQ1a	-0.841 (0.521)	0.405 (0.906)	-0.220 (0.234)	-0.139 (0.468)
Control variables					
<i>ATT_AR_3PAR</i> (in '000 ms.)	?	-3.726 (2.492)	-1.975 (2.569)	-1.311 (0.949)	-1.197 (1.110)
<i>PROG_YEAR</i>	?	1.782*** (0.423)	2.017*** (0.429)	0.132 (0.200)	0.148 (0.193)
<i>MALE</i>	?	-0.480 (0.421)	-0.302 (0.406)	-0.289 (0.184)	-0.278 (0.193)
Intercept	?	5.697*** (0.784)	5.047*** (0.800)	0.659** (0.287)	0.617* (0.333)
Model statistics					
Observations		98	98	98	98
F-value		4.15**	4.26**	2.33**	1.99*
Adj. R-squared		16.3%	19.1%	7.6%	6.7%
VIF		< 1.54	< 4.37	< 1.54	< 4.37

TABLE 7 (continued)

PANEL C: *Chi*-square statistics of joint tests on group fixed effect coefficients
(p-values in parentheses)^a

	Dep. Var.:	<u>UNIFORM</u>		<u>AUDQUAL</u>	
		Group fix. effect	Att. + Gr. fix. eff.	Group fix. effect	Att. + Gr. fix. eff.
	Model:	(1)	(2)	(3)	(4)
	Exp.				
RQ1a: $(B \ \& \ C \ \& \ D) = 0$?	7.47*** (p = 0.006)	0.06 (p = 0.811)	5.20** (p = 0.023)	0.62 (p = 0.431)
RQ1a: $(C \ \& \ D) = 0$?	7.12*** (p = 0.008)	0.07 (p = 0.789)	1.25 (p = 0.263)	0.08 (p = 0.777)
RQ1b : $(C \ \& \ D) = B$?	0.01 (p = 0.929)	0.05 (p = 0.821)	5.77** (p = 0.016)	5.20** (p = 0.023)
RQ1c: $C = D$?	1.23 (p = 0.267)	0.26 (p = 0.608)	0.001 (p = 0.975)	0.003 (p = 0.957)

Notes:

Variables are as defined in Table 1.

^a All *Chi*-square statistics and p-values are based on HC3 heteroscedasticity-consistent standard errors (reported in parentheses) appropriate for small sample sizes as per Long and Ervin (2000).

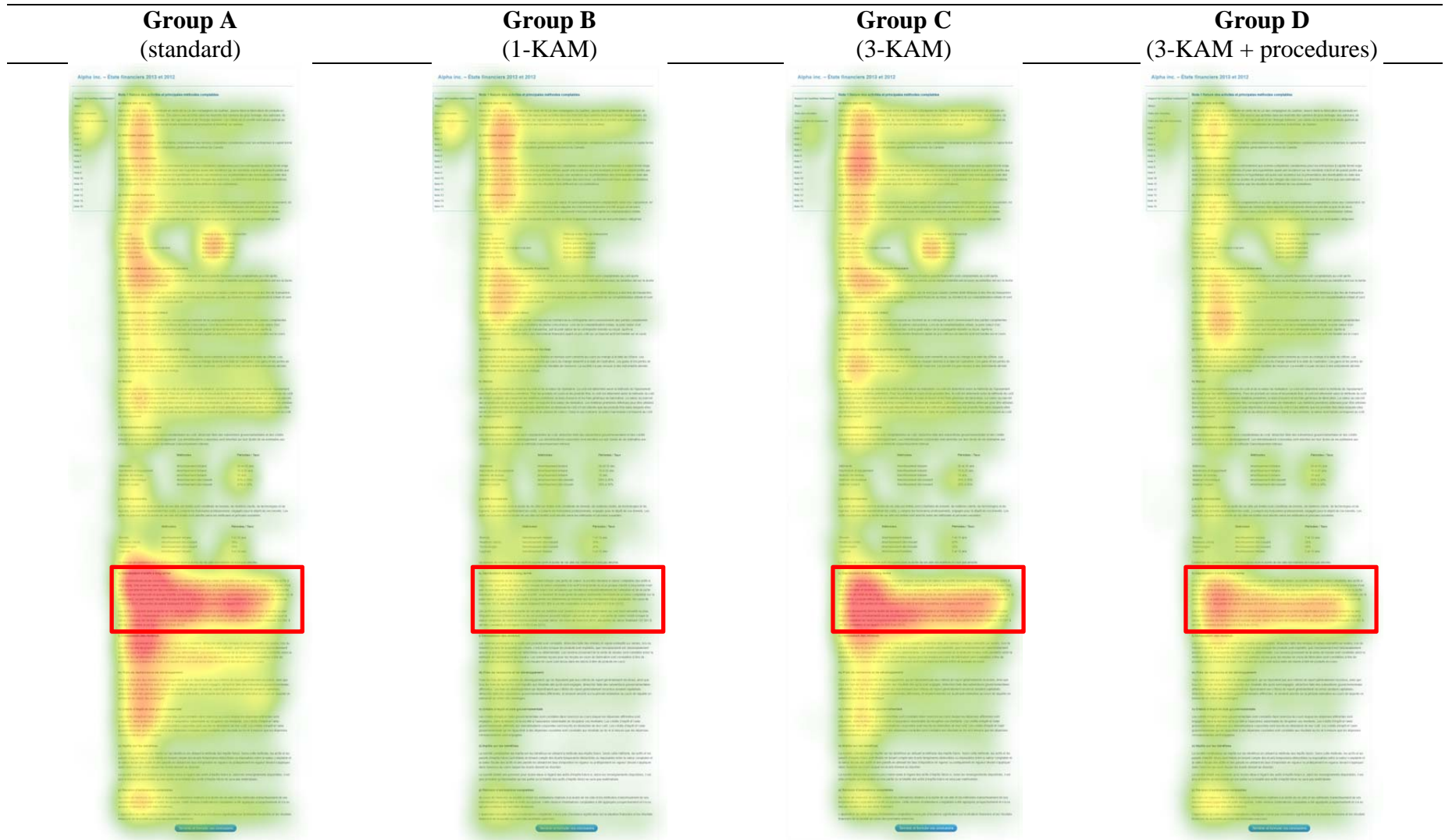
*, **, *** Significant at 10 percent, 5 percent, and 1 percent levels, respectively; one-tailed for signed expectations and two-tailed otherwise.

FIGURE 1: HEAT-MAP OF AUDIT REPORT BY GROUP



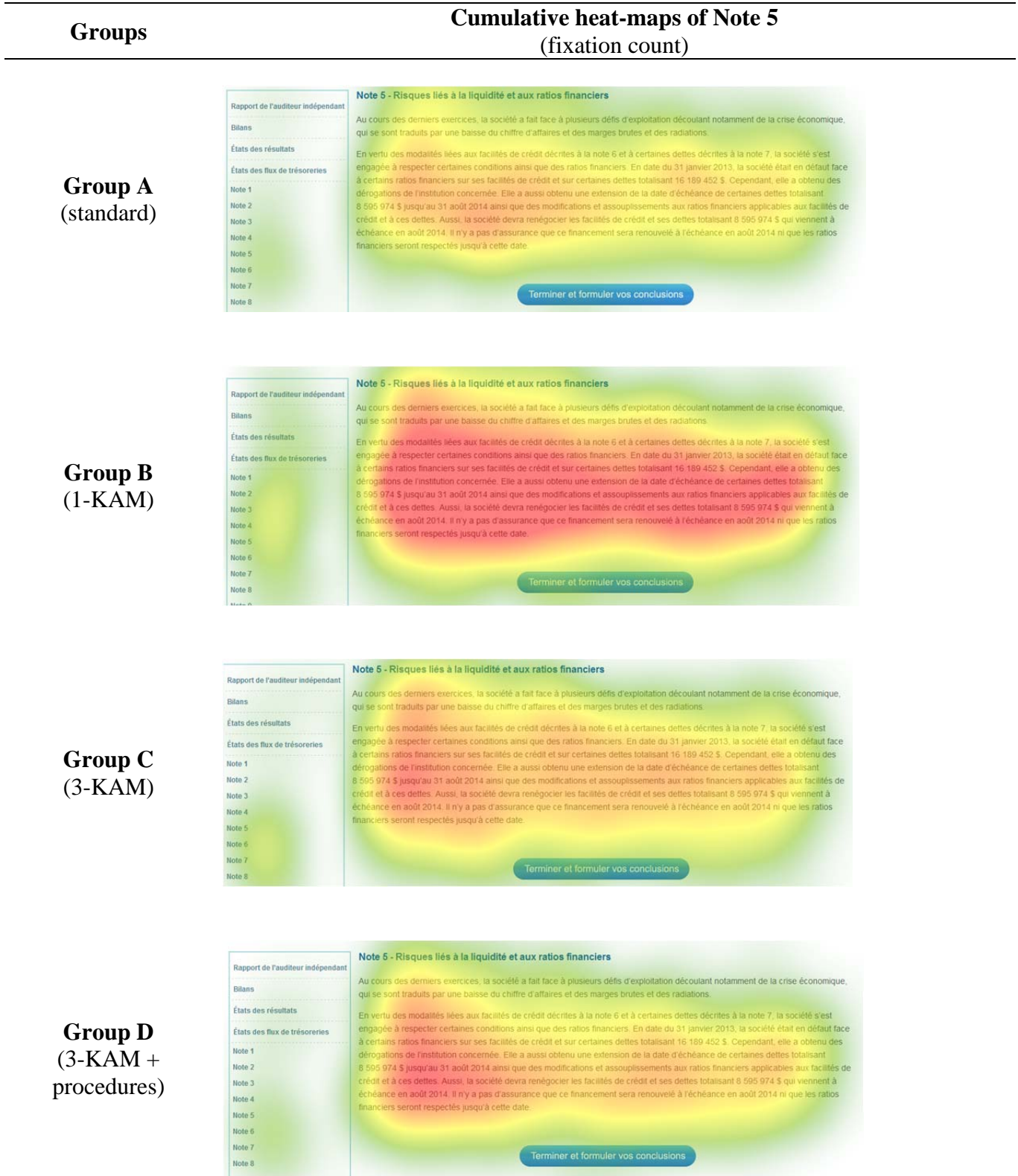
Heat-map based on sum of fixation count upon reading the auditor report of all participants in a group. Darker warm-colored areas represent greater relative attention to a specific area based on fixation count. The red box identifies the KAM section of the report.

FIGURE 2: HEAT-MAP OF NOTE 1 BY GROUP



Heat-map based on sum of fixation count upon reading note 1 of all participants in a group. Darker warm-colored areas represent greater relative attention to a specific area based on fixation count. The red box identifies note 1k.

FIGURE 3: HEAT-MAP OF NOTE 5 BY GROUP



Heat-map based on sum of fixation count upon reading note 5 of all participants in a group. Darker warm-colored areas represent greater relative attention to a specific area based on fixation count.