Professional Loan Officers' Information Search Behavior After Reading Audit Report of a Financially Distressed Company

Evidence From Eye-tracking

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ABSTRACT: In order to respond to the concern about the relevance of auditor reporting when a firm is financially distressed, we examine whether the perceived quality of the signing audit firm (i.e. Big4 or non-Big4 auditor) and going-concern modification affects professional loan officers' information search behavior. Rather than focusing on the final loan granting decision, it is of interest to examine how loan officers navigate through and integrate the information presented in the related audited financial statements and annual report. Using eye-tracking technology, we are able to thoroughly scrutinize information search of professional loan officers. The findings of this study indicate that not only does the going-concern modification affect lenders' information search behavior, but also the credibility of the audit report source. Specifically, the results of the first analysis indicate that the presence of going-concern modification significantly increases the attention to the audit report, and especially when it is signed by a Big4 auditor. Moreover, the information most explicitly mentioned in the going-concern paragraph is accessed quickly, indicating an attention directing effect of going-concern paragraph, and this effect is the most evident when the audit report is signed by a Big4 auditor. Finally, the analyses of this study provide evidence on extensive versus superficial information search, which depends on the source credibility in addition to the presence of the going-concern modification. Information search appears to be most extensive when the lender has read a "clean" report signed by a non-Big4 auditor, suggesting that lenders try to gather more information about the seriousness of the financial problems when the perceived quality of the signing audit firm is perceived low and they do not have the guidance from auditor's going-concern modification. On the contrary, lenders search information more superficially after reading an audit report with going-concern modification signed by a Big4 audit firm, implying that the credibility of the source together with the information provided in the going-concern modification are considered higher. However, differences in extensive and superficial information search appear only in the beginning of the search pattern. The effect of audit report content and the signing audit firm on information search is diluting during the search and participants' overall search patterns are converging.

1. Introduction

Especially due to the global financial crisis, there has been an ongoing discussion about the auditors' role in assessing financial distress of a client company, and in particular, about the relevance of audit report going-concern modification for the users of financial statements (Carson et al., 2013). One side of the discussion relates to the actual quality of the audit, that is, whether auditors are properly fulfilling their role and providing a warning in audit reports when the client is financially troubled. However, due to the doubts about auditors fulfilling this role, and/or due to the perceived lack of informativeness of the going-concern modifications, the discussion is also centered on the perceived relevance of audit reports for the users of financial statements. In this regard, important stakeholder group consists of loan officers, who are expected to use audit reports in order to rely on the credibility of financial statements (Guiral-Contreras, Ruiz, & Choi, 2014). However, prior empirical research has provided very mixed findings on whether going-concern modification has an impact on loan granting related decisions. We join this discussion by applying eye-tracking technology to thoroughly examine whether and how the content of audit report change loan officers' *decision-making process*, when the loan applicant has financial problems.

In this study, we consider and integrate two important elements of the question about the role of the audit report content for lenders' decisions with an attempt to shed light on the prior mixed results of going-concern modification relevance. First of all, prior studies focus mainly on users' final decisions. However, the information search preceding the final decision-making is a critical aspect of many professional and personal decision tasks (Maines & McDaniel, 2000; Blay, Kadous, & Sawers, 2012) in terms of efficiency of the process and the quality of the decisions (Blay et al., 2012). Due to the importance of information search to overall decision quality, the current study focuses on the information search that *precedes* the decision of whether or not to grant the loan and applies eye-tracking in order to be able to scrutinize the information search behavior of loans officers after they have read the audit report of a financially distressed company.

Second of all, prior studies have largely ignored factors which may potentially moderate the going-concern modification relevance to loan officers' decisions and information search (Guiral-Contreras et al., 2014). Considering the results of a few prior studies suggesting that users are mainly interested in checking the audit opinion itself but also the name of the accounting firm signing the audit report (Gray et al., 2011; Sormunen, 2014), it could be assumed that the impact of the audit report on lenders' decisions may not depend solely on the type of the audit report (unqualified vs. qualified), but also the perceived credibility of the source (Big4 firm vs. non-Big4 firm).

We extend the literature on the audit report relevance by conducting for the first time an experimental eye-tracking study on whether the type of the auditor's report (unqualified vs. unqualified with a going-concern uncertainty paragraph), and the perceived credibility of the source (size of the signing audit firm) affect professional loan officers' information search

behavior in the loan evaluation process. Specifically we examine whether the audit modification and the name of the audit firm communicated in the auditor's report have an impact on the information acquisition behavior. Our study approaches this issue by investigating whether (1) lenders' attention to different parts of audit report depend on the audit opinion and/or the signing audit firm, (2) the content of going-concern opinion has an attention directing effect on the parts that are referred in the modification, and does the effect depend on the signing audit firm and (3) the audit opinion and signing audit firm have an effect on whether the acquisition of task-relevant information is extensive or superficial.

The findings of this study indicate that not only does the going-concern modification affect the lenders information search behavior, but also the credibility of the source of the audit report. Specifically, the results of the first analysis indicate that the presence of going-concern modification significantly increases attention to the audit report, and especially when the report is signed by a Big4 auditor. Moreover, the information most explicitly mentioned in the going-concern paragraph does have an attention directing effect since this specific information is accessed quickly by the lenders who have read the going-concern paragraph. More importantly, we find evidence suggesting that this effect is the most evident when the audit report is signed by a Big4 auditor.

Finally, the analyses of this study reveal that source credibility in addition to the presence of the going-concern modification manifest in differences in extensive versus superficial information search. The acquisition of a task-relevant information appears to be the most extensive when the lender has read a "clean" report signed by a non-Big4 auditor. This suggests that lenders try to gather more information about the seriousness of the financial problems when the perceived quality of the signing audit firm is low, and they do not have the guidance from going-concern modification. On the contrary, lenders who read the audit report with going-concern modification signed by a Big4 audit firm had more superficial task-relevant information search, implying that the credibility of the source together with the information provided in the going-concern modification are considered higher. However, differences in extensive and superficial information search appear only in the beginning of the search pattern and start diminishing gradually, eventually disappearing. Thus, the effect of audit report content and the signing audit firm on information search is diluting during the search and participants' overall search patterns are converging. The results of the additional tests suggest differences between the use of financial (i.e. more historical-looking) and non-financial (i.e. more forward-looking) information in the beginning of the information search. Loan officers who read the clean report signed by a non-Big4 focus the most (least) on financial information (non-financial information), while those who read the going-concern opinion by a Big4 spend the least (most) time reading the financial information (non-financial information) in the beginning of the search.

Our study contributes to the literature on the information content of audit reports. This is in our understanding the first experimental study examining the effect of source credibility (Big 4 versus non-Big 4) on the information search behavior of professional loan officers. Guiral et al. (2014) suggest that the inconclusive results of the information content of auditor's report could

be due to omission of context specific factors (such as auditor characteristics) that are not properly controlled or documented in experimental designs. Previous experimental evidence on the impact of source credibility on how audit report information content is viewed and used is scarce. Moreover, while previous studies have analyzed the effects of modified audit opinion on lenders' final decisions, they have largely ignored the overall information search behavior of lenders. Finally, eye-tracking technology allows getting a better understanding of whether users read and integrate auditor's reports differently, and whether the attention paid to specific information in the financial statements and annual report is affected by the firm conducting the audit. To our knowledge our study is one of the first studies to apply eye-tracking to lending decisions. Sirois et al. (2014) conduct their eye-tracking experiment with accounting students while the focus in our setting is on loan officers who are in a position to make appropriate judgments on lending facilities and associated issues in relation to a loan application. This constitutes a more naturalistic experimental set-up and thus potentially allows us to draw more generally valid conclusions.

The remainder of this paper is structured as follows. Section two discusses the relevant prior literature and presents the research questions of the study. Section three presents the experimental research design. Thereafter, the findings are presented and discussed in section four. Conclusions are discussed in section five.

2. Background

For more than half a century, the relevance and usefulness of audit reports have been of research interest. The audit report is often criticized for failing to provide informative content to financial statement users (Church, Davis, & McCracken, 2008). From a theoretical point of view, the audit report as an independent second opinion should provide additional information that helps users to make decisions (Guiral-Contreras et al., 2014), but prior studies have overall provided very inconclusive results on the usefulness of the audit report (Bessell, Anandarajan, & Umar, 2003; Guiral-Contreras et al., 2014). From the perspective of loan officers, some studies indicate that the message of the audit report appears to affect decision-making of loan officers, whereas other studies find no effect on loan officers' judgments. Moreover, while some argue that the information content of the audit report depends on the reason for the qualified audit opinion (e.g. Firth, 1980), other studies state that uncertainty qualifications are unnecessary if the contingency is properly reported in the notes to the financial statements (Abdel-Khalik, Graul, & Newton, 1986; Elias & Johnston, 2001; Houghton, 1983; Libby, 1979). More recently, Guiral-Contreras et al. (2007) find that the audit report has information content only when it is opposite to favorable financial expectations; when this is not the case, the audit report is only perceived as corroborating the underlying financial information.

An audit opinion with a going concern modification has been theorized to work at least in two different ways in lenders' decision-making (Bamber & Stratton, 1997). First, it can act as an independent "second opinion" of serious financial uncertainty and therefore provide additional

information for decision-making (Bamber & Stratton, 1997; Gul, 1987). Accordingly, decision-makers may perceive a going concern opinion as a warning signal that indicates that a company is more risky (Guiral-Contreras et al., 2014). Second, the content of a modified going-concern paragraph can direct lenders' attention to specific elements of financial statements that raise concerns of continued existence (Bamber & Stratton, 1997). Before making the actual lending decision, both roles of 'warning signaling' and 'attention directing' could be expected to affect the lenders' *information search behavior*. In the former case, going-concern may primarily corroborate the seriousness of financial distress, but also affect lenders' effort and/or pattern in information acquisition. In the latter case, going-concern opinion acts as a trigger for subsequent acquisition of specific information.

Previous research has mainly investigated the effect of going-concern opinion on lenders' final decision, but the evidence on lenders' information search behavior is scarce. The few exceptions are Bamber and Stratton (1997), who found that uncertainty modification did not increase their attention to the financial statement's uncertainty footnote that was mentioned in the report, and Bessell et al. (2003) who found only weak evidence that going concern modified audit opinions increased the need for additional information of reported uncertainty. Gul (1987) however, found that lending officers' perceptions of risk and their demand for additional information required both increased as a result of audit qualification. These results could be partially biased as their measures are based solely on self-reported weighting after decision-making. For instance, subjects may have checked the footnote but because they have found it uninformative or redundant, they have recalled it as unimportant afterwards because of memory distortion (i.e. hindsight bias).

More recently, Sirois et al. (2014) found that the key audit matters mentioned in the auditor's report affect the participants' information search by increasing their attention to financial statements disclosures mentioned in the auditor's report. In contrast to Sirois et al. (2014), the current study focuses on the information search of professional loan officers and in the context of a financially distressed client company. This is important because when a firm's financial situation deteriorates, making lending decisions could become more challenging. Managers of the firm have heightened incentives to make their firms appear more economically viable than they are in order to get a positive loan decision (Andersson, 2004), and hence, reported financial information might be more likely to be distorted. Consequently, when lenders attempt to predict future corporate performance and are assessing financial information credibility, they are likely to consider persuasiveness of an auditor more carefully compared to when incentives for financial condition's distortion are absent. Subsequently, judgment on auditor persuasiveness could reflect on their information processing strategy choices. Consequently, our research examines the role of source credibility, which is discussed in the next section.

2.1. Audit report and source credibility

An important factor that could affect the use and interpretation of audit report is the credibility of the source of the information. The concept of *source credibility* builds on the assumption that the inferential value of information in decision making is considered in light of its source (Hirst, 1994). Thus, information from low credibility sources is assumed to be less persuasive in decision making than information that comes from high credibility source (Pornpitakpan, 2004).[1] When financial statements are verified by a knowledgeable and diligent source, information is considered to come from a highly credible source, and it is presumed to have greater value for the decision maker (King, Davis, & Mintchik, 2012). By contrast, financial information from a low-credibility source could cause the lender to exercise additional professional skepticism regarding the credibility of the financial statements and/or the audit report.

In the literature of audit quality, Big4 auditors are generally viewed as higher quality auditors compared to non-Big4 auditors. Big4 auditors are expected to have both a higher probability of detecting and reporting financial statements' errors and 'deeper pockets' in case of audit failure than non- Big-4 auditors (Lennox, 1999; Francis, 2004). Therefore, users of financial information might value these audits more in their decision-making. Recent interview studies examining audit report usefulness report that financial statement users generally believed that larger audit firms have better resources, more internal standards, and have more knowledge on how to apply standards, and therefore provide higher quality audits than non-Big 4 firms (Gray et al., 2011; Sormunen, 2014). Moreover, observed differences in audit quality may also stem from differences in perceived auditor independence. Sormunen (2014) suggest that non-Big 4 auditors might be more client-friendly because of economic pressure, and that in order to keep their clients they postpone the issuance of a modified opinion for as long as possible. Users also believe that smaller audit firms may apply different standards more loosely to retain their clients (Gray et al., 2011).

Archival studies examining the value relevance of Big-4 audits in debt pricing have found mixed evidence. Fortin and Pittman (2007) and Kim, Simunic, Stein and Yi (2011) in US and Korean settings, respectively, do not find that size of the auditor has an effect on debt pricing. Studies by Cano, Sánchez Alegría and Torres (2008) and Karjalainen (2011) with European data indicate that lenders are willing to grant a loan with a lower price when a firm is audited by a Big-4 auditor instead of a non-Big 4 auditor. Two experimental studies, McKinley, Pany, and Reckers, 1985 and Miller and Smith, 2002, investigated whether size of audit firm affects actual loan decisions, but did not find any significant impact. However, they did find that audit firm

[1] (Birnbaum & Stegner, 1979) define source credibility as consisting of three components: source expertise, source bias, and judge bias. Source expertise refers to the perceived correlation between the source's report and the outcome, while source bias refers to the expected difference between the "source's report and the true state of the nature" (Birnbaum & Stegner, 1979). Judge bias refers to the decision maker's own preferences, initial point or other point of view that influence his abilities to assess information in particular context (Alexander, 2003; Birnbaum & Stegner, 1979). Theories of source credibility commonly suggest that decision makers consider information about the source's perceived expertise and bias (trustworthiness) when considering information persuasiveness (Pornpitakpan, 2004).

size significantly affected respondents' perceptions of the execution of an audit, financial statements reliability and auditor independence, suggesting that lenders deem the source of the information in the audit report important.

To conclude, when all above findings are viewed through the source credibility framework (Birnbaum & Stegner, 1979), it could be expected that Big 4 auditors are perceived more competent and less biased sources than non-Big 4 auditors. Prior evidence on the effect of Big4 on lenders' decision-making is, however, limited to observable final outcomes of loan decisions (e.g. granting recommendation or interest), and is therefore not able to give insights on whether lenders change their information processing strategy depending on the size of an audit firm.

2.2. Going-concern uncertainty, source credibility, and information search behavior

Previous studies have not investigated whether the credibility of the source of the audit report affects lenders' information search behavior in a situation of financially distressed loan applicant – a setting where a second independent opinion could be particularly useful. Therefore, an interesting next step, one that we take in our study, is to investigate the influence of going-concern opinion and audit firm size on how loan officers navigate through and integrate the information presented in the related audited financial statements when a firm is financially distressed. Based on the source credibility and going-concern literature discussed above, we set the following research question:

> **RQ:** Does the audit opinion and/or the signing audit firm have an effect on information search?

Our study approaches this question by considering three ways how the differences in the information search behavior could be manifested. ***First***, since most common audit report is the standard clean report, the existence of a going-concern paragraph most likely affects the lenders attention to the audit report itself. Moreover, based on the source credibility, the signing audit firm could also have an impact on how closely the lender reads the audit report. Thus, first sub-question is:

> **RQ1:** Does lenders' attention to the different parts of the audit report depend on the audit opinion and/or the signing audit firm?

Second, as previously discussed, 'attention directing' role of the going-concern modification could be expected have an effect, if the modification acts as a trigger for subsequent acquisition of specific information. Initially, attention directing role could be expected when simply comparing the information search of lenders who read going-concern opinion to those who read clean opinion without the modification. However, as our interest is in the effect of source credibility, we expect the attention directing effect to depend on the signing audit firm in addition to the going-concern modification.

RQ2: Does the content of going-concern opinion have attention directing effect on the parts that are referred in the modification, and does the effect depend on the signing audit firm?

Third, one of the reasons for the mixed findings in prior studies investigating lenders' final decisions might stem from the fact that decision-makers are compensating lower auditor reliability by verifying or acquiring (additional) information by themselves. We argue that perceived source credibility may affect lender's information processing strategy – whether information in the financial statements and annual report is processed using either central or peripheral route (King et al., 2012; Petty & Cacioppo, 1986). The elaboration likelihood model by Petty & Cacioppo (1986) suggests information acquisition either via *central* or *peripheral* route. Via central route, information persuasiveness is evaluated by its central content, where the decision-maker directs amount of cognitive effort for the evaluation and actively process arguments of the information from the different perspectives (Petty & Cacioppo, 1986). By contrast, the peripheral route to persuasion occurs more superficially by other cues than the content of the information. That is, when a decision-maker is unwilling to engage in much thought on the information and is passive or unmotivated to process the information in a cognitively demanding way (Petty & Cacioppo, 1986; Petty & Wegener, 1999), the perceived expertise of the information source could be deemed more important than the actual information content.

The information processing strategy manifests in how extensively a lender acquaints him/herself with the information. By executing extensive first-hand examination (i.e. as second check of potential risk factors), the lender decreases the risk of a bad loan decision, but may incur additional costs if processing of the loan application takes longer time because more effort is needed for extended information processing. Executing more superficial information examination may involve greater risk, but could improve decision-making efficiency and decrease processing cost of a loan application. If lenders deem the source of the information in the audit report important, it could be expected to impact their information processing strategies (i.e. extensive or superficial) in decision making accordingly. Based on the source credibility theory, we expect, in general, more extensive information search when the signing auditor is non-Big 4, and more superficial information search when the signing auditor is Big 4. The information search is also affected by the existence / non-existence of the going-concern modification.

RQ3: Do the audit opinion and/or the signing audit firm have an effect on whether the information search is extensive or superficial?

Going-concern opinion, signed by Big 4: When a Big4 auditor signs an unqualified report with an emphasis of matter paragraph, lenders might accept the going concern threat without questioning it, and perceive a matter paragraph being reliable "second opinion" of increased risk. They could be expected to pay close attention to the auditor's going-concern opinion itself.

Consequently, the attention-directing role of the opinion might be 1) non-existent if the lenders feel that they do not need more information about the going-concern uncertainty or 2) evident if the lenders follow the advice given in the paragraph. Moreover, lenders might take a more peripheral route in their information processing, and consider less extensively the indirect content of arguments that are presented and subsequently acquire little or no information of these arguments from the financial statements or other sources.

Going-concern opinion, signed by non-Big 4: When a non-Big4 auditor signs an unqualified report with a going-concern paragraph, lenders might be more skeptical about the information content of the paragraph. Lower confidence to these firms' competence may motivate the lender to examine more extensively the magnitude/seriousness of disclosed problems when the severity of uncertainty is not unambiguous. This might occur as lenders using more effort for processing the audit report information. Moreover, these lenders might need to acquire more information about the going-concern uncertainty, and use more effort for gathering additional information of arguments presented in a matter paragraph before making their decision of lender's risk level and loan granting. On the other hand, it might be that the extensive search of more information is not focused on going-concern paragraph related issues, but rather on some other information. That is, we expect that a more central route in information processing will be adapted, and lenders acquire information more extensively.

Clean opinion, signed by non-Big 4: When the audit report with clean opinion is signed by a non-Big 4 auditor, lenders may not be assured that unqualified audit opinion can be used as a guarantee that a distressed firm is not having substantial going concern uncertainty. Lenders might recognize that smaller audit firms could have higher threshold for qualifying audit report and may therefore be more likely to question report's accuracy. A more central route in information processing will be adapted. Although more attention to the clean audit report might not be expected, a lender is likely to gather more information about seriousness of financial problems from the financial statements or from other available sources. Higher level of skepticism when an unqualified audit report is signed by a non-Big 4 auditor could be expected, and to mitigate this uncertainty in decision-making, information acquisition and processing of potential going concern problems is expected to be more comprehensive.

Clean opinion, signed by Big 4: When the audit report with clean opinion is signed by a Big 4 auditor, lenders could be expected to take a more peripheral route in their information processing. Thus lenders will consider information contained in unqualified audit report (i.e. firm is not suffering going concern uncertainty) persuasive because of brand name reputation of Big 4 auditors, they will be less skeptical, and take the report's conclusion more for granted instead of considering explicitly threat of continued existence. Consequently, their need for additional information is relatively low and therefore subsequent information acquisition of potential going concern problems from the financial statements is nonexistent or superficial. Big4 auditor signing a clean report is perceived as credible neutral/positive information, and lender pays less attention to the report.

3. Research design

The participants in the experiment were bank officers employed in international Danish and Finnish financial institutions. We first contacted several large banks to assess their willingness to participate the experiment. After they agreed to participate in the study, we asked the banks to give contact information for loan officers with experience of making loan decisions in English. All bank officers who are in a position to make appropriate judgements on lending facilities or associated issues in relation to a loan application were asked to participate in our experiment. All experimental sessions are executed individually onsite at the banks by the same author of this paper. A total of 39 professional bankers were recruited in the current study.

The main reason for focusing on banks is that bank industry officers are one of the main user groups for financial information (see e.g. Constantinides, 2002) and base their decisions on the financial health and stability of a company (Cybinski, 2005). That is, since the interpretation of audit reports is a key factor in the proper allocation of credit, banks are affected by the credibility of these reports (Carson et al., 2013; Francis, 2011), and thus, studies investigating the use of audit reports in credit decisions are important (Gibson, Tanner, & Wagner, 2013).

3.1. Experimental design

We conduct an eye-tracking, between-subjects design experiment where bank officers are asked to perform a simple credit evaluation of a fictional existing client. In the experiment participants are randomly assigned into to one of the four groups. For each group, we manipulate two variables: Audit firm size in the audit report (Big 4[2] vs. non-Big 4 audit firm) and type of auditor's report (unqualified vs. unqualified with a going-concern uncertainty paragraph). Thus, our treatment groups are: (1) an unqualified audit report signed by Big 4 audit firm; (2) an unqualified audit report signed by non-Big 4 audit firm; (3) an unqualified audit report with a going-concern uncertainty (GCO) paragraph[3] signed by Big 4 audit firm; and (4) an unqualified audit report with GCO paragraph signed by non-Big 4 audit firm.

Finnish and Danish versions of the cases were nearly identical. Only names of the case company, including subsidiaries, auditors (audit firm), persons, cities, and similar names mentioned in the cues were adjusted to sound local. For the audit reports, the 'standard' paragraphs were taken from the respective country auditing standards. Danish version of the audit report included "Statement on the Management review" paragraph, which is required by the country's auditing standards.

In the experimental task participants are asked to read on a computer screen the latest audited financial statements of an existing client seeking to refinance an expiring loan for the amount of 2.9 MEUR. The case materials were built from financial statements of real Finnish

[2] We use the brand name of the biggest (by market share) Big-4 auditor in each country.
[3] The content of uncertainty paragraph was prepared with experienced certified auditor.

limited liability company that filed a petition for reorganization.[4] Our case company is a retailer that has four department stores in mid-sized cities, turnover totaling 56 MEUR and value of the assets about 16 MEUR. In order to raise concern of continued existence, we slightly modified the company's financial statements to show high growth in sales, but recent poor profitability.

The information provided in the case consists of descriptive information about the company and its products, essential loan terms (i.e. payable monthly over one years and description of collateral), complete financial statements, and annual report including key financial ratios and variety of non-financial information.

3.2. Procedure

At the beginning of the experimental session, loan officers were briefed about the study and were told that their eye movements would be recorded. In general, very little initial guidance was provided to the loan officers since they were told that all the instructions and relevant material would be presented to them in web format. After briefing the loan officers, loan officers were presented with an instruction page and the lending scenario. The lending scenario illustrated a loan request for a current client of the bank who is seeking to refinance an expiring loan for the amount of 2.9 million euros in order to continue in operations. Once loan officers clicked on the "Next" button, their eyes were calibrated using the native software of the eye tracker before starting the recording their eye movements and navigation activity. After calibration, loan officers would have an access to the complete set of audited financial statements, including the auditor's report.

As we wish to assess the role of modification and audit firm size in the auditor's report, after leaving the task description page, a page with a navigation menu consisting of hyperlinks to the sections of the financial statements appeared on the screen[5]. None of the hyperlinks would be active at that point, expect the second one called "Auditor's report". Once a participant clicked on the link the content of the auditor's report would appear. The links to the other sections of the financial statements remained inactive until subjects clicked back to menu button at the bottom of the audit report page.

From then on, the loan officers could freely navigate through the financial statements. Loan officers could also, at any time, click on a button at the bottom of each page to advance to the "Make a decision" page where they could make their lending decision, i.e. indicate their willingness to recommend refinancing the loan. Participants were also asked to decide the appropriate loan margin, maximum amount of the loan that could be granted to the company and evaluation of loan risk (i.e., company's ability to service the debt). All questions were presented on a 6-point scale, except assessments of interest rate and maximum amount of the loan. To

[4] These companies can be regarded as having more in common with viable companies than with those in financial distress that eventually go bankrupt (Elizabeth, 2002).

[5] Hyperlinks starting with 1) Annual report, 2) Auditor's report, 3) Balance sheet, 4) Cash flow statement, 5) Notes, 6) Profit and loss account, 7) Statement by management

make all above decisions, participants could return to the full set of financial statements as before if needed. There was an additional calibration of the eye tracker before the decision pages.

Once the task was completed, a post-experimental questionnaire was used for follow-up questions. First, we asked whether the loan officer paid attention to the auditor. Second, several case-specific questions were presented. Similar to (Chen & Church, 1996) we used six questions that assessed the extent to which users ascribe confidence in the audit and the financial statements and questions on the importance of the utilized information. After this, we presented more general questions which were not related to the experiment. We assessed the past experiences and perceived differences of/between Big 4 and non-big 4 auditors. Finally, we asked more demographic information, such as educational background, gender, age and experience in years.

4. Data analysis and results

In our analyses, eye-tracking is used to measure eye fixations to an area of interest. Specifically, we use the *total fixation duration* to measure how long time eyes keep fixated on a certain area of interest. Greater fixation duration in an area of interest is interpreted to indicate greater attention to the content of that area (Sirois et al., 2014).

The initial sample consisted of eye-tracking and questionnaire data from 39 lenders. However, due to poor quality eye-track recording of four participants, our final sample used in the analyses consists of 35 lenders.

The following sections report the results of 1) lenders' attention to the audit report, 2) attention directing role of the audit report, and 3) extensive vs. superficial information search. Depending on the research question, the analyses are conducted either by employing robust regression (M-estimation) to estimate regression models, or by presenting and analyzing graphical evidence of the information search pattern. Given our very small sample, we use robust regression instead of typical OLS regression to ensure that few outliers are not driving results and provide resistant results. When analyzing statistical significances of graphical patterns we use non-parametric Mann-Whitney U test, which is especially suitable for smaller samples.

4.1. Lenders' attention to the audit report (RQ1)

The first analysis of our paper addresses how lenders actually read the audit report in general and how the attention to different parts of audit report depends on the audit opinion and the signing auditor. To begin with, heat-maps shown in Figure 1 presents the fixation locations and total count of fixation for one subject in a group for the four different audit reports.[6] A color scale moving from green to red indicates greater number of fixation. Thus, a darker red spot over an area indicates that lenders have paid greater attention to this location. As illustrated by the red

[6] Each example represents a participant whose overall attention to the audit report is the closest to the respective group's median.

spots in Figure 1, there is clear evidence that that the lenders focused proportionally greater attention to the opinion in the clean reports and modification in the reports with an emphasis of matter paragraph.

Insert Figure 1 about here

Table 1 provides descriptive statistics of the attention to the audit report as a whole and the attention to its different subparts. *AuditReportAttention* is defined as total fixation duration spent on reading audit report for the first time, divided by audit report's total length (number of characters).[7] The time used for reading the first three 'standard' paragraphs of the audit report is presented separately for *Paragraph 1*, *2*, and *3*, and as a composite measure of these three labeled as *ParAttention*. *OpinionAttention* is the time used for reading the opinion part of the audit report (including the review of management in the Danish versions), while *GCAttention* is the attention to the going-concern paragraph. *OpinionGCAttention* includes both the attention to the opinion and attention to the going-concern paragraph. Finally, *AuditorAttention* is time used for reading auditor name, signature and audit firm logos. Each variable is divided by the total length of the paragraph.

Table 1 shows that the going-concern paragraph gets the most attention, with mean (median) 46.6 (36.1). When combining the going-concern paragraph and the opinion paragraph (*OpinionGCAttention*), mean (median) is 25.5 (23.7). Average (median) *AuditorAttention* is 16.0 (12.3), while *ParAttention* is 8.9 (5.5). In sum, these descriptive statistics indicate that lenders pay most attention to the auditor's opinion and the emphasis of matter paragraph, then to the auditor itself, and the standard paragraphs get the least attention.

Insert Table 1 about here

As our preliminary analysis, we investigate the association between going-concern opinion and audit firm size, and the attention to the audit report using the following models:

$$\textit{AuditReport/OpinionGC/Par/Auditor}\text{Attention} = \alpha + \beta_1\text{GC} + \beta_2\text{Big4} + \beta_3\text{Disappoint} + \beta_4\text{Experience} + \beta_5\text{ReadSpeed} + \varepsilon \quad (1a)$$

$$\textit{AuditReport/OpinionGC/Par/Auditor}\text{Attention} = \alpha + \beta_1\text{GCBig4} + \beta_2\text{GCnonBig4} + \beta_3\text{NoGCnonBig4} + \beta_4\text{Disappoint} + \beta_5\text{Experience} + \beta_6\text{ReadSpeed} + \varepsilon \quad (1b)$$

$$\textit{AuditReport/OpinionGC/Par/Auditor}\text{Attention} = \alpha + \beta_1\text{NoGCBig4} + \beta_2\text{GCnonBig4} + \beta_3\text{NoGCnonBig4} + \beta_4\text{Disappoint} + \beta_5\text{Experience} + \beta_6\text{ReadSpeed} + \varepsilon \quad (1c)$$

[7] Due to presence/omission of GCO, Review of management paragraphs and different auditor and audit firm names (because of the manipulations and Danish/Finnish cases), total lengths of the audit reports varied from 3 062 to 4 097 characters.

where the dependent variables of audit report attention are as defined above. Our independent variables of interest are the manipulated variables in the experiment: size of the audit firm (Big 4 vs. non-Big 4) and type of auditor's report (unqualified vs. unqualified with a going-concern uncertainty paragraph). In Model (1), *GC* is an indicator variable with a value of one if the participant read an audit report with a going-concern uncertainty paragraph, and zero if the audit report is unqualified. *Big4* is an indicator variable with a value of one if the participant read an audit report signed by a Bi4 auditor, and zero if the audit report is signed by a non-Big4 auditor. Model (2) examines the effect of each different experiment cases, with a case of unqualified audit report signed by Big4 audit firm being the standard case, and hence, the control group for the other three cases. *GCBig4* is the case of audit report with going-concern paragraph signed by Big4 auditor, *GCnonBig4* is the case of audit report with going-concern paragraph signed by non-Big4 auditor, and *NoGCnonBig4* is unqualified audit report signed by a non-Big4 auditor. In Model (3), *GCBig4* is set as the control group for the other cases.

Each model includes three control variables. Some lenders may ignore fully or partially audit report, if they have encountered problems with auditors during their career, thus *Disappoint* is a dummy variable set to one if the lender answered 'yes' to the question 'Have you ever been disappointed in auditor's work?', and zero otherwise. *Experience* is an indicator variable set to one if the participant has at least ten years of experience in commercial bank lending.[8] *ReadSpeed* is a control for participants' individual reading style (Zimbelman, 1997; Sirois et al., 2014), captured by the total fixation duration for reading instruction text paragraph on the information menu page[9].

Table 2 Panels A-C reports the results of Models (1)-(3), respectively. The first column of Panel A indicates that the presence of going-concern paragraph (*GC*) increases significantly attention to the audit report (*AuditReportAttention*). Marginally significant and negatively signed coefficient of *Big4* suggests that audit reports signed by Big4 firms could be perceived more trustworthy and requiring therefore less attention. We also find that more experienced lenders pay less attention to the audit report. In the subsequent columns, analyses of the subparts of audit report (Columns 2-4) indicate that *GC* is positive and significant at the 5% level when *OpinionGCAttention* is the dependent variable, and *Big4* is negative and significant at the 5% level when *ParAttention* is the dependent variable. The latter finding indicates that especially the 'standard' part of the audit report is read more rapidly when it is signed by a Big4 firm. In the *AuditorAttention* model all research variables are far away from conventional significance levels.

In Panel B, the different experimental cases are compared to each other, with a case of *clean* audit report signed by Big4 auditor being the reference case. The results indicate that, compared to clean audit report signed by Big4, opinion and going-concern paragraph get more attention *only* when the modified audit report is signed by a Big4 auditor, but not when it is

[8] Based on the following question: 'How many years of experience do you have in commercial bank lending?" [1; Under 5 years, 2; 5 to 9 years, 3; 10 to 14 years, 4; 15 years or more]

[9] To make sure that the effects of experimental manipulations were not affecting this measure, this particular paragraph was chosen because it preceded audit report. For the two participants who did not read this paragraph, before accessing audit report, median value of the observed *ReadSpeed* was set as their reading speed.

signed by a smaller audit firm. Surprisingly, when the modified audit report is signed by a smaller auditor, then significantly more time is devoted to the 'standard part' of the report (*ParAttention*).

Panel C reports the regression results of estimating Model (3), where a case of audit report with *going-concern paragraph* signed by Big4 auditor is now the reference case. Each coefficient of our variables of interest are statistically significant and negative, confirming that *OpinionGCAttention* gets most attention when the case is GC opinion signed by Big4. Modified audit report signed by non-Big4 auditors gets significantly less attention. Moreover, the magnitudes of the coefficients reveal subtle differences between *NoGCBig4* and *NoGCnonBig4* suggesting that unmodified audit report signed by Big4 auditor is processed more rapidly than respective audit report signed by a smaller auditor.

Insert Table 2 about here

4.2. Attention directing role of the audit report (RQ2)

In order to examine the attention directing role of the audit report, we start by investigating the link between the content of going-concern paragraph and information search behavior. "Restructuring and financial arrangements" in the annual report is the most obvious cue, since it is explicitly mentioned in the going-concern paragraph. Thus, it can be assumed that after seeing going-concern opinion, a participant would be interested to acquire more information about restructuring for investigating the severity of the problem. In order to examine the attention directing effect of audit report on lenders' information search related to restructuring and financial arrangements, we estimate the following models:

$$\text{Restruct} = \alpha + \beta_1\text{GC} + \beta_2\text{Big4} + \beta_3\text{AuditReportAttention} + \beta_4\text{Experience} + \beta_5\text{ReadSpeed} + \varepsilon, \quad (2a)$$

$$\text{Restruct} = \alpha + \beta_1\text{GCBig4} + \beta_2\text{GCnonBig4} + \beta_3\text{NoGCnonBig4} + \beta_4\text{AuditReportAttention} + \beta_5\text{Experience} + \beta_6\text{ReadSpeed} + \varepsilon, \quad (2b)$$

$$\text{Restruct} = \alpha + \beta_1\text{NoGCBig4} + \beta_2\text{GCnonBig4} + \beta_3\text{NoGCnonBig4} + \beta_4\text{AuditReportAttention} + \beta_5\text{Experience} + \beta_6\text{ReadSpeed} + \varepsilon, \quad (2c)$$

where *Restruct* is either *Time_to_Restruct* to measure how rapidly the restructuring-related cue is accessed, or *Used_Time_Restruct* to measure how much effort is used for reading the restructuring-related cue. *Time_to_Restruct* is calculated as time to access "Restructuring and financial arrangements" cue after reading the audit report, and *Used_Time_Restruct* is calculated as total fixation duration to "Restructuring and financial arrangements" cue.

Our manipulated variables in the experiment are *GC* and *Big4* in Model (1), and *GCBig4*, *GCnonBig4*, and *NoGCnonBig4* in Model (2), and *NoGCBig4*, *GCnonBig4*, and *NoGCnonBig4* in Model (3) (as defined in section 4.1.). Also, *AuditReportAttention*, *Experience*, and *ReadSpeed* are as previously defined. *AuditReportAttention* is included in the models to control for participants' level of attention to the audit report.

The results presented in Panel A of Table 3 indicate that lenders who read the going-concern paragraph (*GC*) access the "Restructuring and financial arrangements" cue more rapidly than those who read the clean audit report. The coefficient of *GC* is statistically significant and negative when the dependent variable is time to access the cue. The results presented in Panel B and C suggest that the effect of GC on restructuring-related cue is driven, although being only marginally significant, by the case where the audit report is signed by Big4 auditor (*GCBig4*). The coefficient on *GCnonBig4* is not statistically significant. The results in Panels A-C show that our variables of interest do not have an impact on *Used_Time_Restruct*. However, based on the results of *Time_to_Restruct*, we conclude that the going-concern paragraph does have attention directing effect, and particularly, when the Big4 auditor signed the audit report. This implies that lenders do consider Big4 auditor signed audit report as a more credible information source than audit report signed by a non-Big4 auditor.

Insert Table 3 about here

4.3. Extensive versus superficial information search (RQ3)

In order to examine whether the content of the audit report and the perceived credibility of its source lead to extensive or superficial information search, we explore lenders' information search pattern. Specifically, we examine whether (non-)existence of going-concern opinion and Big4-status are associated with the patterns of using the information related to the liabilities in general (*Liabilities*) and loans in particular (*Loans*) of the case company. We focus on liabilities (loans) since all the participants of the experiment were given the same background information how the case company is seeking to refinance an expiring loan in order to continue operations. Moreover, the audit reports with the going-concern paragraph both explicitly and implicitly refer to the problems related to restructuring and financial arrangements of the case company. Thus, the information concerning liabilities (loans) is considered as the most obvious task-relevant information.

We next outline all liabilities/loans related information from each cue and, by applying eye-tracker analyses, calculate times that participants spent on reading this information. The information taken into account in the search pattern is the total fixation duration per character of each of the following:

- *Liabilities*-related information areas:
    - 'Liabilities' in the balance sheet
    - 'Liabilities' in the notes to balance sheet liabilities

- Ratios related to indebtedness in the financial statistics
- all those cues and their parts in the annual report that mentioned the loans: Restructuring-related cue and two separate paragraphs in the " Important events after the accounting period" and " Estimate of the most significant risks and uncertainty factors" cues

- *Loans*-related information areas:
  - Loans in the balance sheet
  - Loans in the notes to balance sheet liabilities
  - Loans in the cash flow statement
  - all those cues and their parts in the annual report that mentioned the loans: Restructuring-related cue and two separate paragraphs in the " Important events after the accounting period" and "Estimate of the most significant risks and uncertainty factors" cues

In order to examine the patterns, we present graphical evidence of the used time of 1) *Liabilities*-related information, and 2) *Loans*-related information in different stages of the lenders' overall information search. The information search patterns of the *Liabilities*-related information by each four cases (see 3.1. for the definitions) are presented in Figure 2 and 3. Figure 2 indicates that overall the time spent to *Liabilities*-related information does not differ much between cases. However, in the beginning of the search, lenders who read the audit report with going-concern paragraph spent somewhat less time on *Liabilities*-related information compared to the cases without going-concern paragraph. However, the pairwise comparisons do not generally indicate statistically significant differences.

Insert Figure 2 about here

In the next Figure 3 we present information search patterns of the Liabilities-related information by case the without restructuring-related cue. Since this cue is explicitly linked to the content of going concern paragraph, as an alternative examination, we exclude it to make all four cases more comparable and scrutinize in these patterns more implicit Liabilities-related information. There are now much more clear differences between the cases in the beginning of the search. Lenders who read the audit report with going-concern paragraph signed by a Big4, spent somewhat less time on *Liabilities*-related information (other than restructuring-related cue) compared to lenders who read the same going-concern paragraph but signed by a non-Big4. There are also differences in lenders' use of information between those who read the clean report signed by a Big4 and those who read the clean report signed by a non-Big4. Clean report signed by a non-Big4 leads to greater information search in the beginning of the search. However, the differences are not statistically significant.

The pairwise comparisons of the search patterns reveal only weak statistical difference between lenders who read going-concern opinion and those who read clean opinion when both

were signed by a non-Big4 auditor. However, the most clear differences occur between clean audit report signed by non-Big4 (least credible) and going-concern report signed by Big4 (most credible). Statistically significantly more extensive information search continues from fourth cue until fifteenth cue. Comparing information search after reading clean opinion signed by Big4 auditor to those after going-concern opinions imply basically statistically insignificant difference. Overall, in the beginning of the search, the greatest differences can be observed between those who read the going-concern opinion signed by Big 4 (more superficial information search) and those who read clean report signed by a non-Big4 firm (more extensive information search).

Insert Figure 3 about here

Consistent with the source credibility assumption, we interpret that when financially distressed company has an audit report with a going-concern paragraph signed by a Big4 auditor, amount of needed effort to examine seriousness of the liabilities issues is the lowest since those problems are already disclosed by a credible source. However, it is worth of noting that the total use of *Liabilities*-related information does not differ between the cases overall, and only statistically significant differences exist in the beginning of the search. The differences start diminishing gradually and eventually disappear when participants have read about twenty cues[10]. Thus, we find that the effect audit report content and the signing audit firm for information search is diluting during the search and participants' overall search patterns are converging.

The information search patterns of the *Loans*-related information by case are presented in Figures 4 and 5. Figure 4 indicates that overall the time spent to *Loans*-related information does not differ much between cases. However, in the beginning of the search, lenders who read the clean report signed by a non-Big4 auditor spend much more time acquiring information about loans compared to the other cases – even when comparing to the lenders who also read the clean audit report but signed by a Big4. This suggests more extensive information search when there are no going-concern opinion and the signing auditor is a non-Big4, while the differences not being statistically significant.

Insert Figure 4 about here

Figure 5, presents Loans-related information search patterns without restructuring-related cue. Regarding the cases with clean opinion, the results remain similar. However, for those lenders who read the audit report with going-concern paragraph signed by a Big4, spent less time on *Loans*-related information (other than restructuring-related cue) compared to lenders who read the same going-concern paragraph but signed by a non-Big4. The difference is not, however, statistically significant.

Similarly to the *Liabilities*-related information, it seems that in the beginning of the search, the greatest differences can be observed between those who read the going-concern opinion

[10] 78 % of the participants read twenty or more cues, including multiple reads (minimum being 12 and maximum 42).

signed by Big 4 (more superficial information search) and those who read clean report signed by a non-Big4 firm (more extensive information search). This statistically significantly more extensive information search continues from fifth cue until eleventh cue. Thus, standard audit report signed by a non-Big4 auditor seems to lead lenders to first examine "basics" of current loan status extensively.

Insert Figure 5 about here

4.4. Additional analysis: Financial and non-financial information search

Additionally, we explore the information search patterns by case regarding financial and non-financial information. In the literature (e.g. Arnold & Edwards, 1993; Behn & Riley Jr., 1999), non-financial information is often characterized to be more forward-looking information that can be valuable for predicting future financial information. In this study, balance sheet, cash flow statement, income statement, and notes to the financial statements are considered as the financial information and other cues as the non-financial information. Similarly with the prior analyses, we divide used cumulative time with used number of total cue characters. The graphical evidence presented of used financial information in Figure 6 indicate that in the beginning of the information search, lenders who read the clean report signed by non-Big4 focus mostly on financial information, while those who read the going-concern opinion by Big4 spend less time reading the financial information in the beginning of the search. The pairwise comparisons of the search patterns reveal that this difference is statistically significant only between cues six and nine, while other differences in the graph being insignificant. In the end of the search, differences between the cases in the time used for financial information are not found, indicating that this information is eventually acquired in the later phase.

Insert Figure 6 about here

Figure 7 presents graphical evidence of non-financial information search patterns. Again, it can be seen that those lenders who read the audit report with going-concern paragraph signed by a Big4 compared to those who read the clean report signed by a non-Big4 auditor have the greatest difference in their information acquisition. The evidence shown in the figure mainly indicates that used total amount of the non-financial information is somewhat same between these groups at the end, but the acquisition order is reversed (i.e. early vs. late). Thus, it seems that the type of audit report and signing audit firm size mainly change the acquisition *order* of different type of the information.

Insert Figure 7 about here

5. Conclusion

This study examines whether going-concern modification and the perceived quality of the auditor that signs the audit report has an impact on loan officers' information search behavior, when they are deciding whether or not to grant a loans to a financially distressed company. The findings of this study do provide evidence suggesting that not only does the going-concern modification affect the lenders information search behavior, but also the credibility of the source. However, differences are evident only in the beginning of the information search. Thus, the effect audit report content and the signing audit firm for information search is diluting during the search and participants' overall search patterns are converging. Moreover, it is worth of noticing that the additional (untabulated) tests reveal that the when the lenders make the final decisions, going-concern modification and the signing audit firm does not have a significant influence on the decisions itself.

The eye-tracking technology used in this study, however, enables us to explore the information search that precedes the final decision in detail. Specifically, this study focused on the following questions:

1) Does lenders' attention to different parts of audit report depend on the audit opinion and/or the signing audit firm?

2) Does the content of going-concern opinion have attention directing effect on the parts that are referred in the modification, and/or does the effect depend on the signing audit firm?

3) Do the audit opinion and/or the signing audit firm have an effect on whether the information search is extensive or superficial?

The results of the first analysis indicate that the presence of going-concern modification significantly increases attention to the audit report, and especially when the report is signed by a Big4 auditor. Moreover, the information most explicitly mentioned in the going-concern paragraph does have an attention directing effect since this specific information is accessed quickly by the lenders who have read the going-concern paragraph. More importantly, we find evidence suggesting that this effect is the most evident when the audit report is signed by a Big4 auditor.

Finally, the analyses of this study reveal that source credibility in addition to the presence of the going-concern modification manifest in differences in extensive versus superficial information search. The acquisition of a task-relevant information appears to be the most extensive when the lender has read a "clean" report signed by a non-Big4 auditor. This suggests that lenders try to gather more information about the seriousness of the financial problems when the perceived quality of the signing audit firm is low, and they do not have the guidance from going-concern modification. On the contrary, lenders who read the audit report with going-concern modification signed by a Big4 audit firm had more superficial task-relevant information search, implying that the credibility of the source together with the information provided in the

going-concern modification are considered higher. However, differences in extensive and superficial information search appear only in the beginning of the search pattern and start diminishing gradually, eventually disappearing. Thus, the effect of audit report content and the signing audit firm on information search is diluting during the search and participants' overall search patterns are converging. The results of the additional tests suggest differences between the use of financial (i.e. more historical-looking) and non-financial (i.e. more forward-looking) information in the beginning of the information search. Loan officers who read the clean report signed by a non-Big4 focus the most (least) on financial information (non-financial information), while those who read the going-concern opinion by a Big4 spend the least (most) time reading the financial information (non-financial information) in the beginning of the search.

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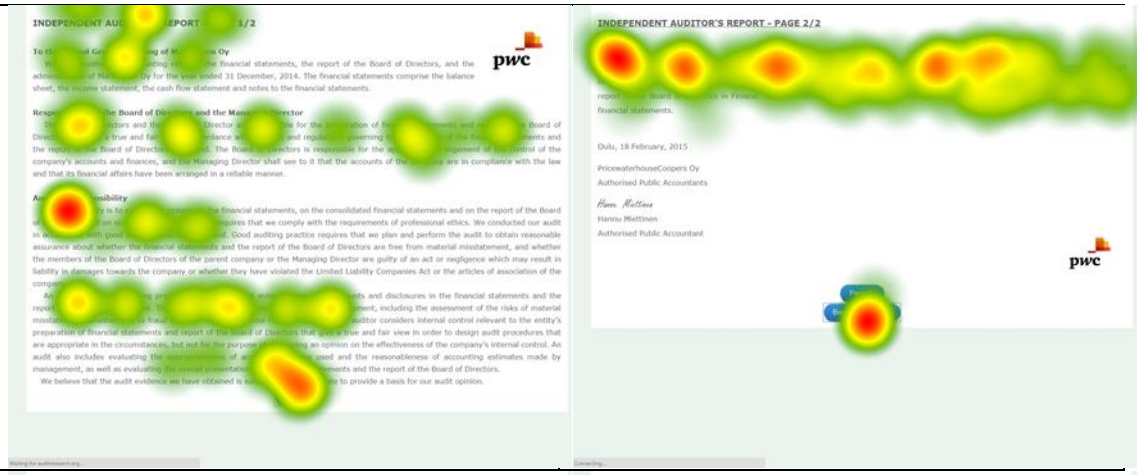
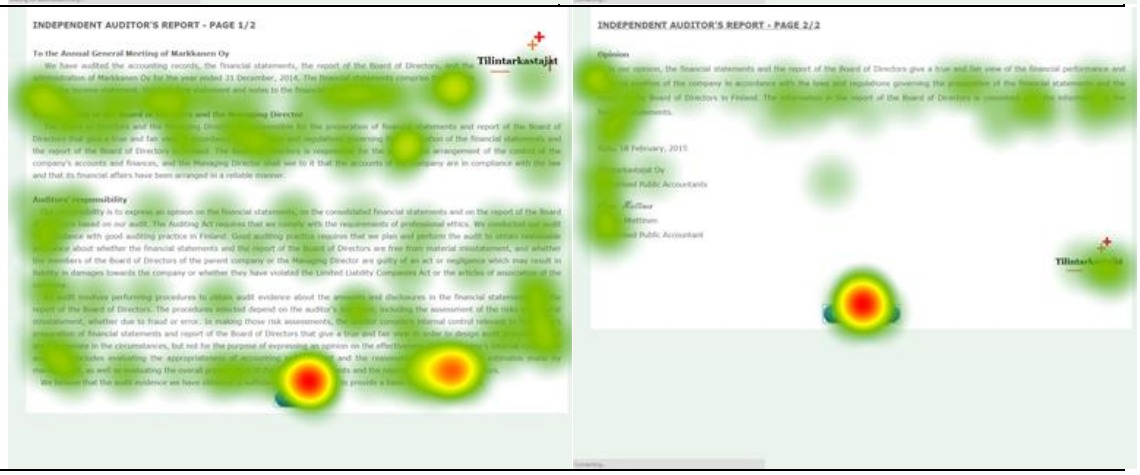
Figure 1. Heatmaps of attention to the audit report by case

Standard Big 4	
Standard Non-Big 4	
Modified Big 4	

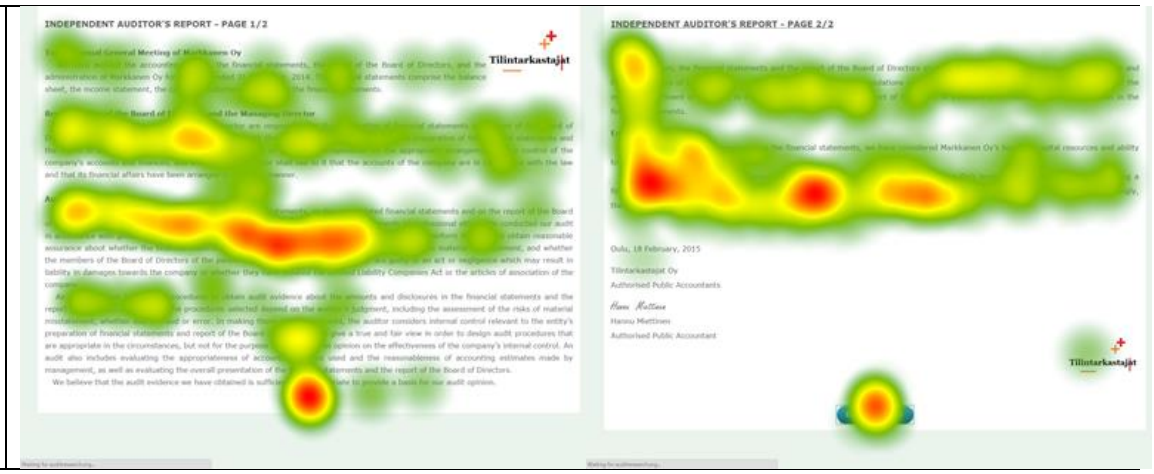
Modified Non-Big 4	

Figure 2. Information search patterns of the Liabilities-related information

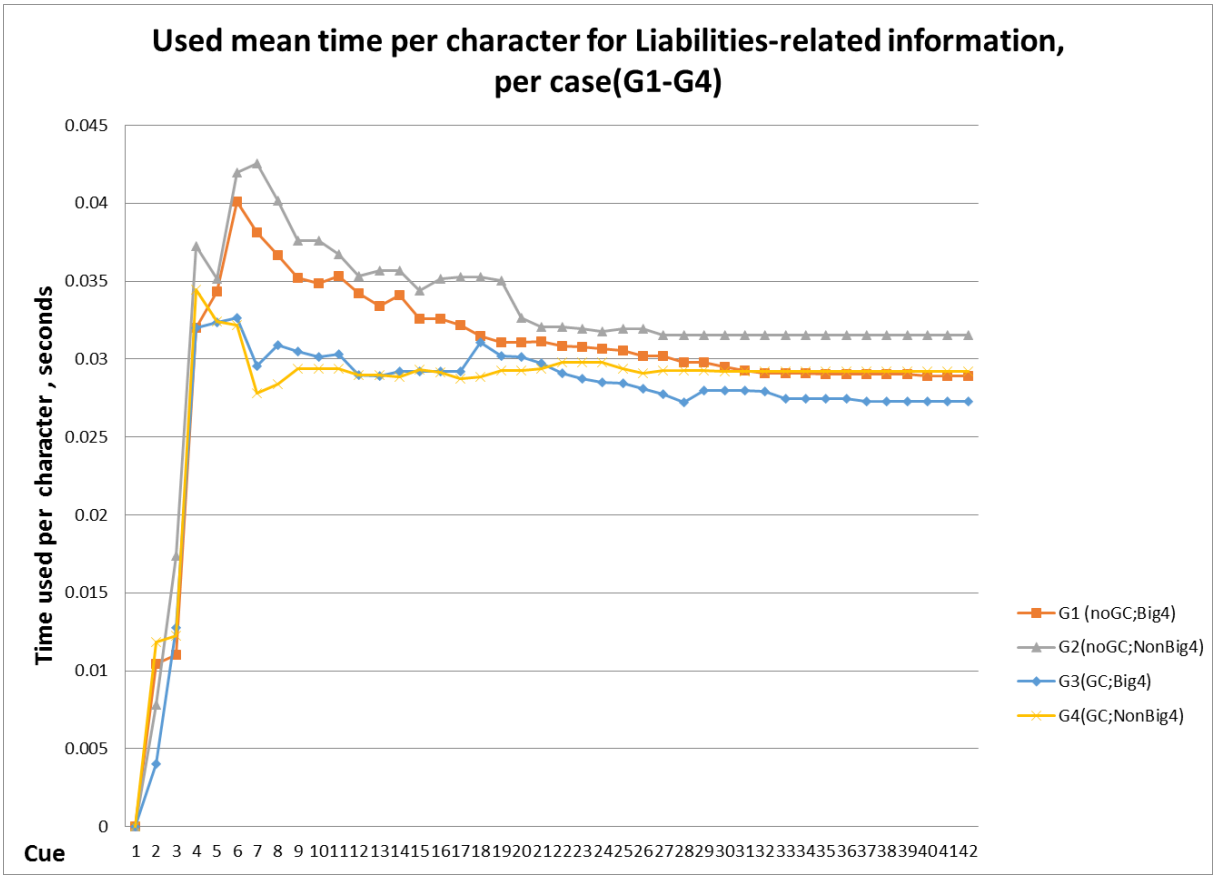


Figure 3. Information search patterns of the Liabilities-related information without restructuring-related cue

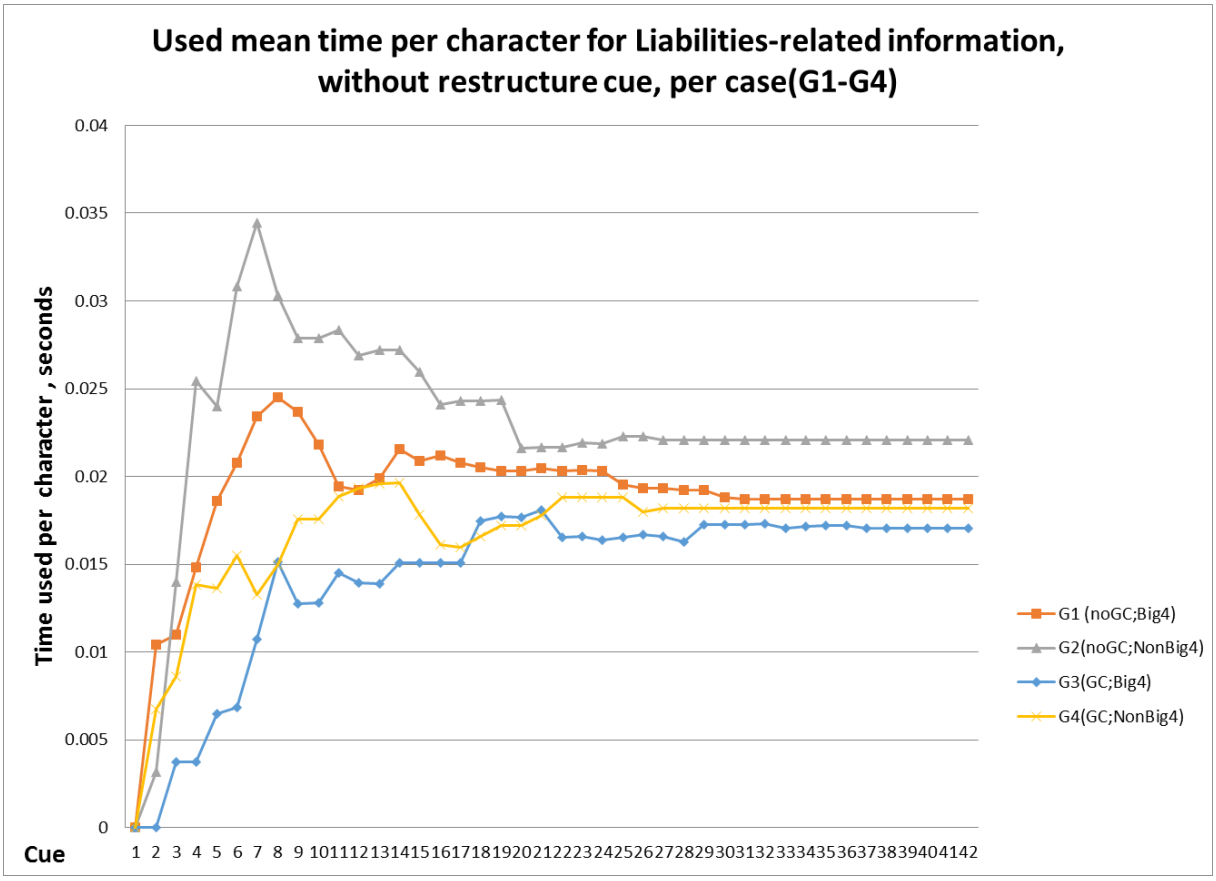


Figure 4. Information search patterns of the Loans-related information

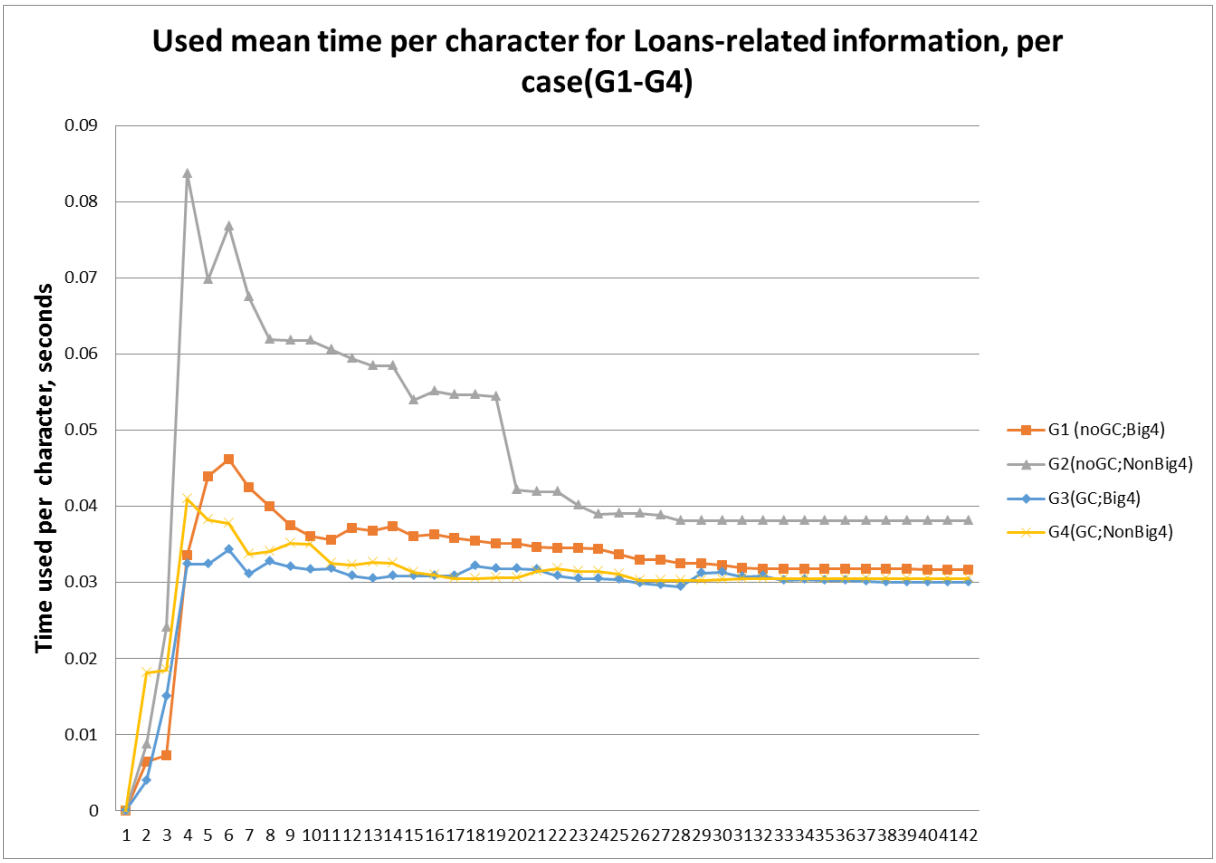


Figure 5. Information search patterns of the Loans-related information without restructuring-related cue

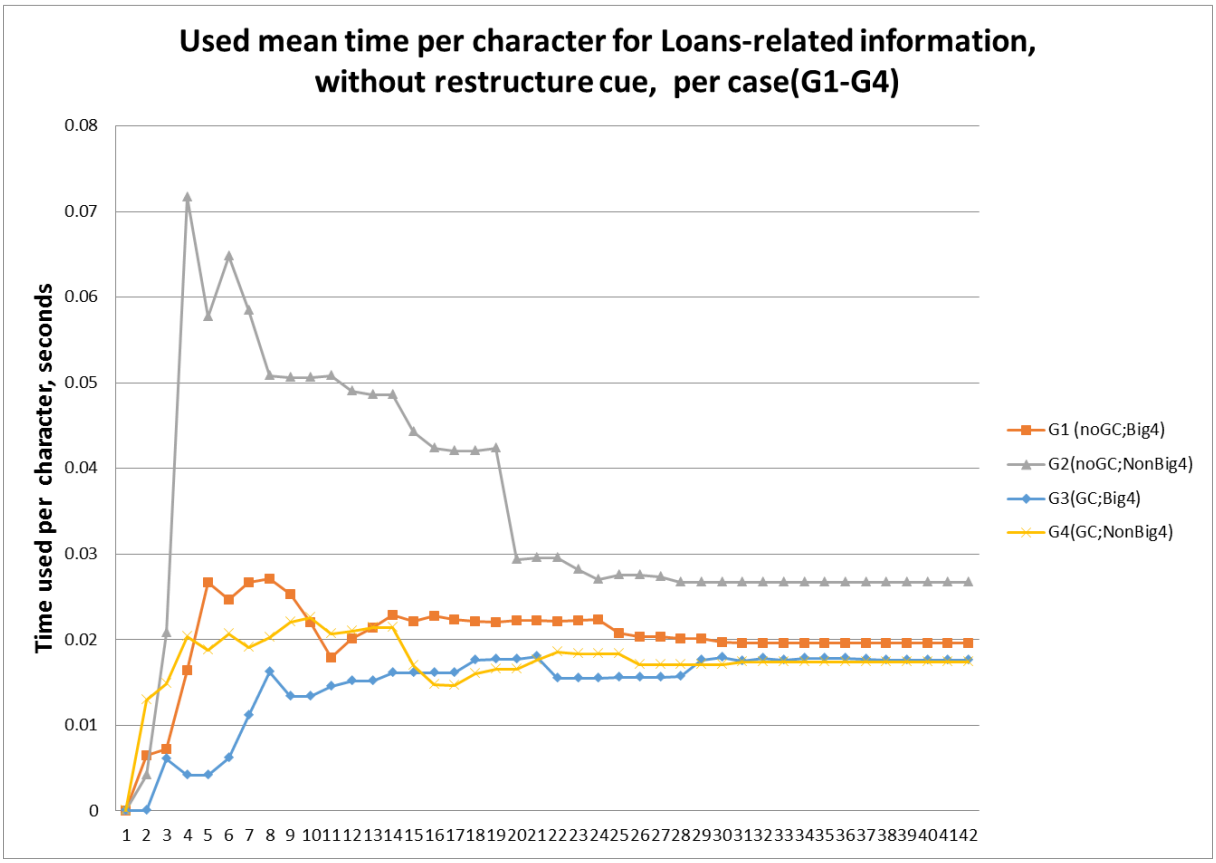


Figure 6. Information search patterns of financial information

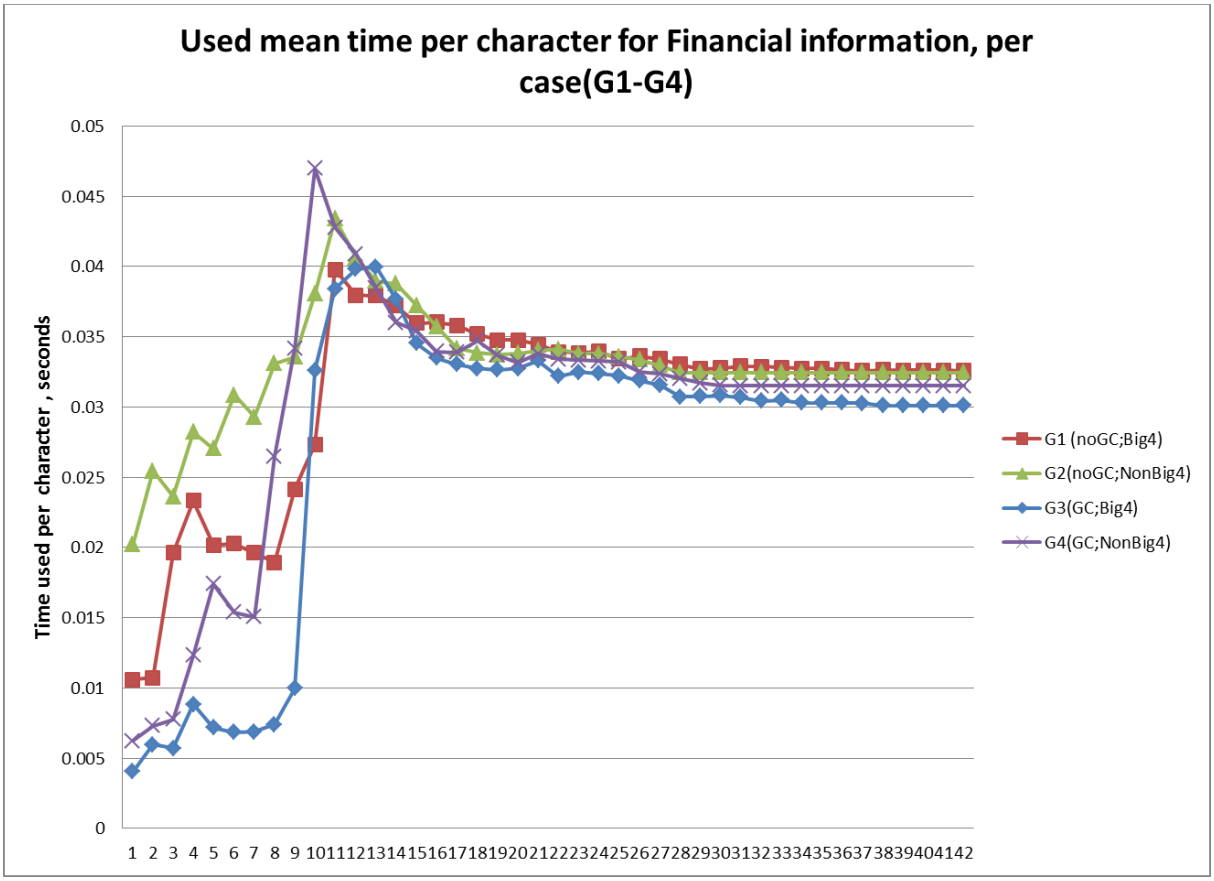


Figure 7. Information search patterns of non-financial information

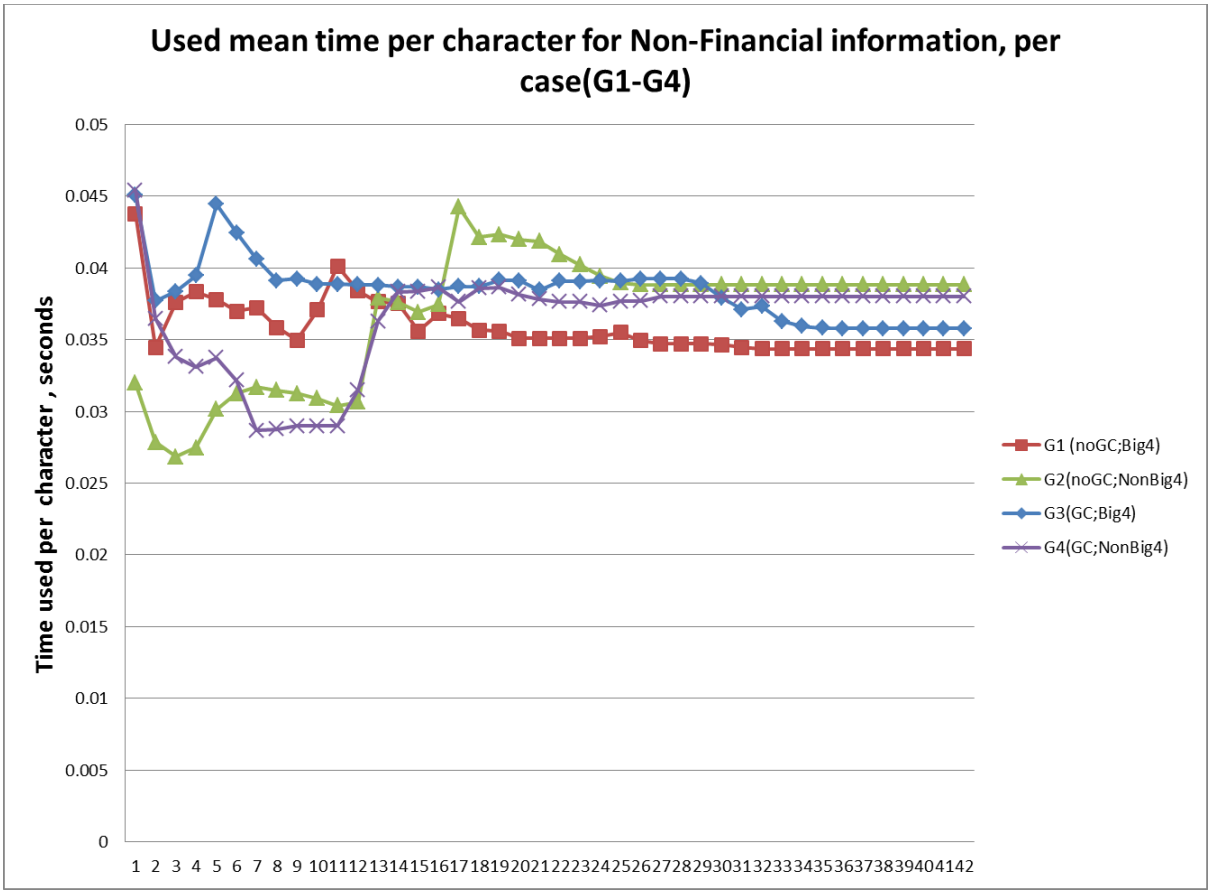


TABLE 1
Descriptive statistics of the variables measuring attention to audit report

Variable	N	Mean	Std Dev	Minimum	Lower Quartile	Median	Upper Quartile	Maximum
AuditReportAttention	35	12.543	9.854	0.860	5.298	10.731	14.239	43.250
Paragraph 1	35	15.428	12.013	0.000	6.317	13.580	20.854	55.916
Paragraph 2	35	8.895	9.448	0.000	3.042	5.213	12.399	46.497
Paragraph 3	35	7.705	11.424	0.169	1.521	4.001	6.645	52.005
ParAttention	35	8.868	9.744	0.630	2.735	5.497	9.296	46.768
OpinionAttention	35	18.019	10.213	1.675	10.241	17.502	23.650	41.677
GCAttention	17	45.643	31.349	7.688	23.718	36.131	59.577	131.083
OpinionGCAttention	35	25.515	17.048	1.675	13.447	23.650	33.798	85.266
AuditorAttention	35	15.956	14.738	0.000	7.269	12.255	21.128	70.424

TABLE 2
Analysis of lenders' attention to audit report

Panel A: Model (1a)

	AuditReport Attention		OpinionGC Attention		Par Attention		Auditor Attention	
	Coef.	Chi-sq	Coef.	Chi-sq	Coef.	Chi-sq	Coef.	Chi-sq
GC	5.419	20.78 ***	9.942	5.95 **	1.642	1.41	-0.027	0.00
BIG4	-1.996	2.82 *	3.157	0.60	-2.916	4.44 **	0.078	0.00
Disappoint	-2.016	2.35	-5.124	1.29	-1.205	0.62	-0.018	0.00
Experience	-3.698	7.02 ***	-7.000	2.14	-1.702	1.10	-7.180	3.64 *
ReadSpeed	0.001	14.89 ***	0.001	4.38 **	0.000	6.91 ***	0.000	0.19
Intercept	6.606	11.2 ***	16.155	5.70 **	3.008	4.21 **	7.016	7.11 ***

Panel B: Model (1b)

	AuditReport Attention		OpinionGC Attention		Par Attention		Auditor Attention	
	Coef.	Chi-sq	Coef.	Chi-sq	Coef.	Chi-sq	Coef.	Chi-sq
GCBig4	5.958	11.93 ***	19.641	11.46 ***	0.721	0.12	4.153	0.84
GCnonBig4	7.083	17.82 ***	6.144	1.19	5.307	7.07 ***	0.174	0.00
NoGCnonBig4	2.420	2.09	2.965	0.28	1.949	0.96	4.271	0.95
Disappoint	-2.101	2.42	-6.203	1.87	-1.474	0.84	0.430	0.01
Experience	-3.886	6.63 **	-10.823	4.54 **	-1.266	0.50	-9.301	5.52
ReadSpeed	0.000	12.91 ***	0.001	4.44 **	0.000	9.20 ***	0.000	0.04
Intercept	4.754	4.73 ***	18.783	6.52 **	1.583	0.37	13.633	5.65 **

Panel C: Model (1c)

	AuditReport Attention		OpinionGC Attention		Par Attention		Auditor Attention	
	Coef.	Chi-sq	Coef.	Chi-sq	Coef.	Chi-sq	Coef.	Chi-sq
NoGCBig4	-5.958	11.93 ***	-19.641	11.46 ***	-0.721	0.12	-4.153	0.84
GCnonBig4	1.125	0.38	-13.496	4.86 **	4.586	4.49 **	-3.979	0.70
NoGCnonBig4	-3.539	4.10 **	-16.676	8.05 ***	1.228	0.35	0.118	0.00
Disappoint	-2.101	2.42	-6.203	1.87	-1.474	0.84	0.430	0.01
Experience	-3.886	6.63 ***	-10.823	4.54 **	-1.266	0.50	-9.301	5.52 **
ReadSpeed	0.000	12.91 ***	0.001	4.44 **	0.000	9.20 ***	0.000	0.04
Intercept	10.712	21.96 ***	38.424	24.97 **	2.304	0.72	17.785	8.80 **

Notes: All p-values are two tailed. *, ** and *** denotes p<.05, p<.01 and p<.001, respectively.

TABLE 3
Analysis of attention directing role of the audit report
Direct Link

Panel A: Model (2a)

	Time_to_Restruct			Used_time_Restruct		
	Coef.	Chi-sq				
GC	-195.360	5.12	**	-411.75	0.01	
BIG4	-25.931	0.09		4131.91	1.00	
AuditReportAttention	-2.302	0.24		597.47	6.95	***
Experience	134.260	1.81		-4795.44	0.99	
Read_Speed	0.015	2.65		0.34	0.63	
Intercept	195.212	2.62		13109.71	5.05	**

Panel B: Model (2b)

	Time_to_Restruct			Used_time_Restruct		
	Coef.	Chi-sq				
GCBig4	-241.737	3.26	*	-494.71	0.01	
GCnonBig4	-172.601	1.69		-4546.70	0.59	
NoGCnonBig4	-23.186	0.03		-4217.93	0.52	
AuditReportAttention	-2.453	0.22		597.22	6.64	***
Experience	98.786	0.72		-4774.10	0.84	
Read_Speed	0.011	1.27		0.35	0.60	
Intercept	261.266	3.08	*	17272.08	6.80	***

Panel C: Model (2c)

	Time_to_Restruct			Used_time_Restruct		
NoGCBig4	241.737	3.26	*	494.705	0.01	
GCnonBig4	69.136	0.24		-4051.990	0.41	
NoGCnonBig4	218.551	2.53		-3723.220	0.37	
AuditReportAttention	-2.453	0.22		597.221	6.64	*
Experience	98.786	0.72		-4774.100	0.84	
Read_Speed	0.011	1.27		0.346	0.60	
Intercept	19.529	0.01		16777.38	4.47	**

N=35

Notes: All p-values are two tailed. *, ** and *** denotes p<.05, p<.01 and p<.001, respectively.