Recognition versus Disclosure in Financial Statements:
Does Search-facilitating Technology Improve Transparency?

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ABSTRACT

Research suggests that investors and creditors react less strongly to information disclosed in footnotes than to information recognized on the face of financial statements, due at least in part to cognitive processing limitations. Emerging technologies (e.g., XBRL) that facilitate directed searches and simultaneous presentation of related financial statement and footnote information could potentially alleviate these limitations. We use an experiment to investigate whether the use of a search-facilitating technology affects how individuals react to recognition versus disclosure of stock option compensation. We find that the use of search-facilitating technology reduces differences in nonprofessional investors' financial performance judgments and investment decisions created by recognition versus disclosure. Additionally, we provide evidence that investors perceive greater differences in financial statement reliability between recognition and disclosure when they use search-facilitating technology. Overall, our findings suggest that search-facilitating technology improves the transparency of financial statement information and therefore may reduce incentives for firms to lobby for or to choose footnote disclosure to minimize the effects of negative information.

I. INTRODUCTION

An emerging technology, XBRL, has the potential to influence users' processing of financial information and thus, their judgments and decisions based on this information (Eccles et al. 2001, 310-311; Hannon 2002). XBRL (an acronym for Extensible Business Reporting Language) is a computer language that is being promulgated by XBRL International, a global consortium of over 170 financial services, technology, and accounting organizations. In this technology, predefined data tags act like barcodes identifying different pieces of data within a firm's financial, regulatory, or tax reports. These data tags provide information about the structure of financial data that allows software applications (e.g., search engines, parsers) to more effectively process the data. For example, software developed to search for these predefined data tags allows users to extract and simultaneously view all similarly coded information, regardless of where the information is presented in a firm's financial statements. This search capability has the potential to help increase the transparency of different accounting treatments, reduce users' cognitive costs of processing information, and act as a decision aid for users by facilitating the acquisition of related information. [1]

While search-facilitating technology has implications for numerous financial statement issues, recognition versus disclosure of financial information likely is one of the issues most affected. In the past decade, managers have vigorously opposed standard setters' proposals to

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[1] Financial statements are transparent if they make apparent the underlying economics of the business and its transactions. Thus, transparency involves not only concepts related to reliability (i.e., representational faithfulness and neutrality), but also understandability. To be transparent, financial statements must be representationally faithful and neutral, i.e., the financial statements must accurately represent the underlying economics in an unbiased manner (Statement of Financial Accounting Concepts No. 2, para. 63). Additionally, transparency is associated with the idea in the Financial Accounting Standard Board's (FASB) Conceptual Framework that financial statements should be presented in a manner that is easily understood by individuals "who have a reasonable understanding of business and economic activities and are willing to study the information with reasonable diligence" (Statement of Financial Accounting Concept No. 1, para. 34).

recognize in the financial statements items such as stock-based compensation and unrealized gains/losses on financial assets, preferring instead that these items be disclosed in the footnotes.

Why the vigorous opposition to recognition? One possible explanation is that there are economic costs associated with recognition if debt covenants or other contracts are restricted by recognized, but not disclosed, amounts. A second explanation is that managers believe that the items in question do not meet the FASB's relevance and reliability criteria for recognition, and thereby deem disclosure the appropriate reporting alternative. A third explanation is that managers believe that users fixate on recognized items and discount disclosed items due to processing costs or cognitive limitations. Such a belief would lead managers to disclose information they believe would harm firm value if recognized in the body of the financial statements.

Regardless of the reason mangers oppose recognition in favor of disclosure, the implementation of search-facilitating technology has two implications for managers' choice of recognition versus disclosure. First, by facilitating comparisons across companies that differ in their choice of recognition versus disclosure, search-facilitating technology makes managers' choice of recognition versus disclosure more transparent to users. Second, search-facilitating technology allows users to easily access information disclosed in the footnotes and compare and integrate this information with related information recognized on the face of the financial statements. For both reasons, search-facilitating technology enables financial statement users to make more informed decisions based upon the information contained in the report, regardless of where it is presented.

In this study, we document a difference in investors' judgments and decisions created by recognition versus disclosure of stock option compensation. We then examine whether using a search-facilitating technology reduces this difference. Using an experiment, we manipulate

placement of stock option compensation information (recognition or disclosure) and *presentation* (nonsearchable or searchable format) in a 2 x 2 between-subjects design. We manipulate *placement* by either recognizing a firm's stock option compensation expense on the face of the income statement or disclosing stock option compensation in the firm's footnotes. We manipulate *presentation* by presenting the materials in a nonsearchable (PDF) format versus a searchable (XBRL) format.[2]

Participants receive information about two firms (Firm A and Firm B) in the medical equipment and supplies industry, evaluate each firms' financial performance, make investment decisions about the two firms, and assess the reliability of each firms' financial statements. One of the firms, Firm A, always discloses stock option compensation in the footnotes. The other firm, Firm B, represents the *placement* manipulation and either recognizes stock option compensation on the face of the income statement (recognition condition) or discloses stock option compensation in the footnotes (disclosure condition). We created the materials so that in the disclosure condition, where both firms disclose stock option compensation, Firm B outperforms Firm A on four key income statement ratios. In the recognition condition, where Firm A discloses and Firm B recognizes stock option compensation, Firm A outperforms Firm B on the four key income statement ratios unless participants adjust Firm A's income statement to reflect stock option compensation. In other words, if participants put the two firms on equal footing, Firm B outperforms Firm A on the key ratios. If participants fail to put the two firms on equal footing, Firm A appears to outperform Firm B on the key ratios.

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[2] We recognize that PDF documents have limited search capabilities using Adobe Acrobat's search command. However, these search capabilities are not based on data tags, which are a prerequisite to software programs being able to extract, organize, and present user-specified information. For ease of exposition, we refer to our experimental conditions that contained an XBRL-enabled search engine as "searchable," and those that did not as "nonsearchable."

Our results show that recognition versus disclosure of stock option compensation does affect users' judgments and that using a search-facilitating technology mitigates this effect. This finding is consistent across participants' assessments of financial performance as well as their investment decisions. In fact, participants who do not have access to search-facilitating technology go from preferring to invest in Firm B when both firm disclose stock option compensation to preferring to invest in Firm A when Firm B recognizes stock option compensation on its income statement and Firm A discloses stock option compensation in its footnotes. Participants who use search-facilitating technology do not exhibit this preference reversal; they in contrast make similar relative financial performance and investment decisions regardless of whether both firms disclose stock option compensation or one firm discloses and one firm recognizes stock option compensation. We also provide evidence that investors perceive greater differences in financial statement reliability between recognition and disclosure when they use search-facilitating technology, with recognition leading to perceptions of greater reliability than disclosure.

Our findings suggest that a search-facilitating technology (XBRL) has the potential to reduces users' cognitive costs associated with processing recognized versus disclosed financial information. Additionally, our results imply that technology can compensate, at least partially, for users' knowledge limitations by acting as a decision aid. Search-facilitating technology facilitates a directed search for related information, similar to the search method used by professionals when analyzing financial information (Hunton and McEwen 1997). To the extent that search-facilitating technology facilitates the acquisition of related information dispersed throughout a firm's financial statements, it has the potential to help nonprofessional users integrate this information when making judgments and decisions. Accordingly, widespread implementation of this technology has the potential to alter some of the incentives that managers

have to lobby for or choose disclosure over recognition. While our study focuses on recognition versus disclosure of stock option compensation, implications of increased transparency associated with search-facilitating technology extends to issues such as U.S. companies' choice of different accounting methods for inventory (e.g., LIFO versus FIFO) and leases (e.g., operating versus capital).

This paper is organized as follows. Section II discusses recognition versus disclosure and briefly reviews relevant empirical-archival and experimental research. We then present hypotheses for the effect of search-facilitating technology on users' judgments and decisions in a recognized versus disclosed information context. Section III describes our experiment and Section IV provides results. Section V summarizes and concludes.

II. THEORY AND HYPOTHESES

Standard Setting and Recognition versus Disclosure

The FASB's conceptual framework states that an item should be recognized in the body of the financial statements only if it (1) meets the definition of a financial element (e.g., asset, revenue); (2) is measurable with sufficient reliability; (3) is relevant to users' decisions; and (4) is reliable in the sense of being representationally faithful, verifiable, and neutral (SFAC No. 5, para. 63). Items that fail to meet one or more of these criteria are candidates for disclosure. According to Johnson and Storey (1982), items primarily fail recognition tests due to uncertainty about the item's existence or its monetary value.

Financial accounting standards rarely allow recognition and disclosure as acceptable alternatives for presenting financial statement information; one exception is stock option compensation. In the early 1990s, corporate managers and standard setters engaged in vigorous debate over the placement of stock-based compensation within a firm's financial statements.

After intense lobbying, the resulting standard, Statement of Financial Accounting Standard (SFAS) No. 123, Accounting for Stock-Based Compensation (FASB 1995), encourages firms to report the fair value of stock option compensation as an expense in the income statement but does not require this treatment. Under SFAS No. 123, firms can choose to follow the prior standard, Accounting Principles Board (APB) Opinion No. 25, Accounting for Stock Issued to Employees (APB 1972), and recognize only the difference between the market value of the stock and the option exercise price on the date of grant (usually zero) as an expense in the income statement. In this case, firms also must disclose the fair value of the stock options compensation and pro forma income in the notes.

Until 2002, only two firms in the Fortune 500, the Boeing Company and Winn Dixie, elected to recognize stock option compensation in the income statement. Recently, however, a number of companies have announced that they will expense employee stock option compensation, including Coca-Cola Company, General Electric Company, and Bank One Corporation. Others, such as Intel, have announced that they will continue to disclose stock option compensation information in their footnotes. Thus, in the future, there is likely to be greater diversity in reporting for stock option compensation among companies, enhancing the importance of understanding users' reactions to recognition versus disclosure.

Research on Recognition and Disclosure

Both archival-empirical and experimental research have examined users' reactions to recognized and disclosed information. In the archival-empirical domain, research on disclosed

information is most relevant for this study.[3] Archival studies find that stock prices reflect footnote information (Landsman 1986; Harris and Ohlson 1987; Barth 1994), suggesting that investors view disclosed information as relevant and at least minimally reliable. With respect to stock option compensation, Aboody et al. (2001) document that stock prices are negatively associated with fair value measures of stock compensation disclosed in the footnotes under SFAS No. 123.

Several studies, however, have concluded that prices partially ignore note disclosures, relative to the expected impact of this information from models linking specific footnote information and stock price (Harris and Ohlson 1987; Landsman and Ohlson 1990). The implications of these studies are unclear; however, because departures from the predicted market reaction could be due to several factors. These factors include investors incompletely processing footnote disclosures due to cognitive costs or limitations, investors discounting the footnote disclosures due to reliability concerns, and measurement error in the models used to calculate the predicted reaction.

Most experimental research in this area has focused on users' information processing by manipulating recognition versus disclosure in individual judgment settings. Sami and Schwartz (1992) find that bankers assess higher interest rates, lower maximum loans, and lower probabilities of repayment when pension liabilities are included in the balance sheet rather than disclosed in the notes. Although most bankers noted the difference in methods between firms in

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[3] Archival tests of recognition versus disclosure are rare since most accounting standards mandate recognition or disclosure. In the rare cases where managers have discretion, firms' self-selection of accounting method reduces researchers' abilities to make inferences about investors' use of information. Examining disclosure versus recognition for the same firm over time also is problematic since changes in accounting policy either are self-selected or result from mandated changes in accounting, which may reflect changes in the information's characteristics (Bernard and Schipper 1994). Finally, archival research tends to focus on investors of publicly traded companies; however, even if investors process footnote information appropriately, managers have incentives to influence other stakeholders via financial reporting choices, e.g., creditors, employees, suppliers (Bowen et al. 1995).

the within-subjects design, they did not adjust their judgments accordingly. Other studies find that individuals do not adjust financial statement ratios for disclosed items related to pensions and post-retirement benefits (Harper et al. 1987, 1991). However, Wilkins and Zimmer (1983) note that the experienced bankers in their study took disclosed leases into account in their lending decisions although they typically did not adjust financial ratios explicitly for the disclosed leases.

Collectively, the archival and experimental research indicates that financial statement users likely discount information disclosed in the footnotes relative to information recognized on the face of the financial statements. While these studies don't provide definitive conclusions as to the reasons for this discounting, they suggest that users' cognitive processing of disclosed information is a factor. We turn to cognitive processing research for further insights on this issue.

Implications of Recognition versus Disclosure for Users' Judgments and Decisions

As indicated, there are several possible reasons why recognition and disclosure differentially influence users' judgments and decisions. First, given recognition criteria in SFAC No. 5, standard-setters' or managers' choice of recognition versus disclosure *per se* can have implications for users' judgments by providing signals about information's relevance and/or reliability (Bernard and Schipper 1994). Second, recognition versus disclosure can affect at least some users' judgments for reasons related to processing costs and cognitive limitations (Bloomfield 2002; Hirshleifer and Teoh 2002). If managers realize this and choose to exploit it, an incentive exists to lobby for or choose disclosure of items they believe investors will perceive

negatively.[4] The first reason above reflects users' perceptions of data limitation; the second reflects limitations in the users themselves.

In this paper, we focus primarily on the second reason, cognitive processing, since it is the most influenced by search-facilitating technology. In order to process financial statement information appropriately, users must (1) understand what information is relevant; (2) locate this information in the financial statements; and (3) evaluate the implications of this information for judgments and decisions, both alone and in conjunction with other information.

With respect to the first two steps, research suggests that users who don't understand the relevance of footnote information may not access this information. Process-tracing research identifies both a *directive* search strategy, in which individuals search directly for specific financial statement items, and a *sequential* search strategy, in which individuals read the financial statements in the order reported (Bouwman et al. 1987). Hunton and McEwen (1997) document that financial analysts who use a directive search strategy in an experimental forecasting task have both higher historical accuracy at their brokerage firm and higher accuracy in the experimental task. These results are consistent with more knowledgeable financial statement users finding relevant information regardless of its placement in the financial statements and less knowledgeable users simply reading the information as presented. Since footnotes typically are among the last items presented in an annual report, users who use a sequential strategy may reach an "overloaded" cognitive state prior to reading the footnotes and not access this information.

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[4] See Bernard and Schipper (1994) for examples of comment letters to the FASB that are consistent with concerns about the negative effect of recognition of stock option compensation on stock prices. These comment letters suggest that managers viewed disclosure of this information as acceptable.

Even if users read the footnotes, they may not understand the implications of the information, either alone, or in conjunction with related information presented elsewhere in the financial statements. Research finds that users who do not fully understand a financial item use placement within the body of the financial statements as a signal of the nature and importance of financial information. For example, Maines and McDaniel (2000) document that nonprofessional investors view comprehensive income items as more important for assessing firm performance when these items are presented in a performance (income) statement than in a statement of stockholders' equity. This research suggests that less-knowledgeable users may automatically assume that disclosed information is less important than recognized information due to its placement. Additionally, given their sequential processing, less-knowledgeable users may have difficulty connecting related information dispersed throughout financial reports and thus fail to integrate footnote information with information presented in the body of the financial statements.

Finally, even if users are able to accomplish all three processing steps, they will not do so if they expect the cognitive costs of processing footnote information to exceed the benefits. Research indicates that cognitive processing costs influence even professional users' judgments and decisions (Hirst and Hopkins 1998); analysts appear to ignore information they believe ex ante will not provide important information.

In summary, research indicates that cognitive limitations and processing costs can cause investors to place less weight on disclosed items than recognized items for reasons unrelated to information relevance or reliability. Research also suggests that less-knowledgeable users (e.g., nonprofessional investors) are more likely than knowledgeable users (e.g., financial analysts) to fail to process footnote information appropriately.

Information Processing and Search-facilitating Technology

XBRL uses predefined data tags that provide information about the content and structure of a dataset, allowing search technology to more effectively categorize and present the information. With knowledge of the labels associated with the data tags, users of electronic financial reports can easily extract and custom-format information to suit their analyses.[5] For example, in our context of stock option compensation, a user can search for "compensation or salary expense," and retrieve simultaneously all items in the financial statements with that data tag, whether in the body of the statements or in the footnotes.

Technology that facilitates directed searches potentially mitigates cognitive processing costs and limitations that lead to differences in users' judgments and decisions between firms that choose recognition versus disclosure. XBRL data tags help accomplish this by providing detailed information about the content and structure of the data, allowing search engines to effectively perform a directed search and simultaneously present related financial statement and footnote information. Additionally, search-facilitating technology can overcome users' knowledge limitations by acting as a decision aid that identifies related information and presents it simultaneously, providing users with an opportunity to integrate data better and make appropriate comparisons between firms that choose recognition versus disclosure.[6] Larkin and Simon (1987) argue that presenting information in a way that enhances the structure of the data

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[5] The ability to prepare custom reports that compare and evaluate the financial statements of different companies explains the attraction of XBRL for investment analysts. The NASDAQ has engaged in a pilot program to allow users to experience these benefits of XBRL. This pilot program, undertaken in conjunction with Microsoft and PricewaterhouseCoopers, provides investors with access to five years of XBRL formatted financial data for 21 NASDAQ-listed companies. EDGAR, Inc. also has launched a public repository for company financial statements tagged in XBRL, called XBRL Express. As of August 2002, 79 firms are listed on XBRL Express.

[6] Although searchable technology helps alleviate cognitive limitations and processing costs, its presence does not eliminate all problems associated with these limitations and costs. Users must use the search technology to obtain its benefits. Additionally, although the searchable technology provides all information in one place, it does not indicate how to evaluate and integrate this information. Financial statement users must bring this knowledge to the task.

and facilitates users linking relevant information allows users to more efficiently (and often effectively) acquire and use the information.

For a firm with outstanding stock options, reported net income is higher when the firm chooses to disclose stock option compensation in the footnotes than when the firm recognizes stock option compensation on the face of its income statement. We expect the difference in reported net income to influence users' financial performance judgments unless they adjust net income for stock option compensation disclosed in the footnotes. We believe search-facilitating technology will reduce the influence of recognition versus disclosure by making the firm's stock option compensation reporting choice more transparent and directing attention to the pro forma income statement effects of stock option compensation that is disclosed in footnotes. H1 (stated in alternative form) reflects our prediction as to the effect of search-facilitating technology on users' financial performance judgments.

H1: In the presence of search-facilitating technology, users' financial performance judgments will be less influenced by the choice of recognition versus disclosure of stock option compensation than in the absence of search-facilitating technology.

If users' investment decisions incorporate their financial performance judgments, investment decisions should reflect the predictions made in the prior hypothesis. Specifically, H1 predicts that search-facilitating technology will lead users to be less influenced by differences in financial performance (net income) between recognition and disclosure. We state the corresponding hypothesis with respect to investment decisions below.

H2: In the presence of search-facilitating technology, users' investment decisions will be less influenced by the choice of recognition versus disclosure of stock option compensation than in the absence of search-facilitating technology.

Search-facilitating technology may also affect other reasons for a differential user reaction to recognition versus disclosure: specifically, reasons related to perceived financial

statement reliability such as inherent differences in relevance/reliability and managers' use of disclosure to downplay negative information. Search-facilitating technology likely will make differences in recognition/disclosure policies between companies more transparent as long as this technology retains placement signals (i.e., shows where different information items originate (Hodge 2001)), which XBRL does. Thus, search-facilitating technology can draw attention to a firm trying to play down stock option compensation by choosing disclosure in the footnotes rather than recognition on the income statement. This heightened sensitivity to a firm's disclosure choice will result in users having negative perceptions about the reliability of financial statements of firms that choose disclosure. These arguments lead to the following hypothesis related to reliability.

H3: In the presence of search-facilitating technology, users' judgments of financial statement reliability will be more influenced by the choice of recognition versus disclosure of stock option compensation than in the absence of search-facilitating technology.

III. EXPERIMENT

Participants

Ninety-seven second-year MBA students enrolled in financial statement analysis courses at two large state universities served as surrogates for online nonprofessional investors in our experiment.[7] We use nonprofessional financial statement users as participants because research suggests that they are more likely to be affected by cognitive processing limitations and costs than professional users (Hunton and McEwen 1997). Additionally, search-facilitating technology

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[7] We recruited participants over two quarters. The materials used each quarter were identical except for one alteration. In the first quarter participants could view each firms' footnote information by using the search engine, or by clicking on a "notes" hyperlink on the menu bar located on the left side of the screen (see Appendix A). During the second quarter we deactivated the footnote hyperlink on the menu bar. There are no quarter or school differences in our subsequent hypotheses tests.

is relevant only for investors who retrieve financial information online. Online traders are one group of investors who likely access and use Web-based financial information. Online traders typically are more open to new technologies, more self-directed and aggressive, have higher incomes and assets, are younger, and are more highly educated than their counterparts who do not trade online (Fidelity Investments 2000). We use graduate business students because they possess many of these characteristics; they typically are self-motivated, work with and have an understanding of financial statements and the role of auditing, use the Web to retrieve information, and are interested in making their own investment decisions.[8]

We programmed the experimental materials to allow us to track which participants used the search engine to examine information in the notes. Of the 60 participants who viewed the materials in the searchable (XBRL) conditions, 31 used the search engine to view footnote information. Since using the search engine is a prerequisite to testing our hypotheses, these 31 participants, in addition to the 36 participants who completed the experiment using nonsearchable PDF-formatted financial statements, comprise our final sample. All data and statistics reported below refer to these 67 participants.[9]

On average, participants in our final sample had completed three accounting and four finance courses. Sixty-three percent of the participants had bought or sold an individual company's common stock or debt securities (not through a mutual or pension fund) and 94 percent plan to invest in a company's stock in the next five years. Seventy percent of those who

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[8] Maines (1990), Hirst et al. (1995), Hirst et al. (1999), and Hodge (2001) report similar demographic information for graduate business students.

[9] Using only a subset of subjects from the searchable condition potentially introduces a selection bias. To alleviate concerns that our results are driven by the exclusion of subjects, we conclude our results section by (1) reporting the effect of including all participants in the searchable conditions in our hypotheses tests, and (2) testing whether the 31 participants who used the search engine in the searchable conditions differ from the 36 participants in the nonsearchable PDF conditions across ten different demographic/performance variables. Where differences exist, we report the effect of including these variables as covariates in our hypotheses tests.

plan to invest intend to make the investment themselves rather than through a broker. Ninety-six percent of the participants had previously evaluated a company's performance by analyzing financial statements. Each participant earned a flat wage of $10 for completing the experiment.

Design and Materials

We use a 2 x 2 between-subjects design. The two independent variables are presentation format (non*searchable* / *searchable*) and placement of data (*recognition* of the cost of stock options on the face of the income statement versus *disclosure* of the same information in the footnotes). The searchable condition contained an XBRL-enabled search engine at the bottom of the computer screen that allowed participants to retrieve all information on the site related to a specific account. For example, if participants were analyzing salary expense on a firm's income statement and wanted to see related note information, they could retrieve the note information and simultaneously view it with the income statement information by using the search engine. Appendix A shows Firm A's homepage in the searchable conditions and Appendix B provides an example of what the search engine retrieval screen would look like if a participant had searched for information on salary expense.[10] The nonsearchable condition contained the same information (financial statements and notes) but did not have the search engine at the bottom of the screen. Rather, the financial information was presented in a PDF-formatted document, similar to how many firms presently provide financial information. Appendix C shows Firm A's homepage in the nonsearchable conditions.

We manipulated the other independent variable, recognition versus disclosure, by having one of the two firms (Firm B) in the medical supply industry recognize stock option compensation expense on the face of the income statement (recognition condition) or disclose it

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[10] In the experimental materials one firm was named "Mediready" and the other firm was named "Supplymed." We refer to Mediready as "Firm A" and Supplymed as "Firm B" in our discussion of the two firms.

in the notes (disclosure condition).[11] The other firm (Firm A) always discloses stock option compensation expense in the notes. We created the materials so that in the disclosure condition, where both firms disclose stock option compensation, Firm B outperforms Firm A on four key income statement ratios. The introductory materials stated that professional analysts consider these four ratios critical in the medical equipment and supplies industry. In the recognition condition, where Firm A discloses and Firm B recognizes stock option compensation, Firm A outperforms Firm B on the four key income statement ratios unless participants adjust Firm A's income statement to reflect stock option compensation. In other words, if participants put the two firms on equal footing Firm B outperforms Firm A on the key ratios. If participants fail to put the two firms on equal footing, Firm A appears to outperform Firm B on the key ratios.

Procedure

We recruited participants from second-year MBA financial statement analysis classes. Participants received $10 along with an instruction sheet that contained one of four Web addresses. Participants were asked to complete the case in one sitting within two weeks. On average, participants completed the case in 29 minutes; this average did not differ across the four conditions (F = 0.60, p = 0.62).[12]

Participants began the case by typing in the Web address listed on their instructions sheet. Participants then reviewed an instructions page, a page containing general information about the

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[11] The two experimental firms are based on actual firms in the medical supplies industry. We chose this industry because it is one of only four industries in which earnings adjusted for stock option compensation is at least 10 percent less than reported earnings from 1997-1999 (Bear, Sterns & Company 2000). Additionally, relative to other industries that meet this first criterion (e.g., high tech firms), we believed that participants would not have strong ex ante beliefs about the performance of the medical supplies industry. Indeed, 94% of participants reported that they had not analyzed a firm in this industry.

[12] One participant submitted the first questionnaire over four hours after beginning the case. We assume this participant did not complete the case in one sitting and therefore eliminate this participant's responses from our data set. Our results do not differ if we include this participant's responses in our analysis.

medical supplies industry, and questionnaire #1, which elicited the major dependent variables described in the following paragraph. After previewing questionnaire #1, participants could begin their analysis by going to either firm's home page. From each firm's home page, participants could view the financial statements or footnotes for that firm or they could click on a hyperlink to go to the other firm's financial statements and notes. After examining each firm's financial information, participants completed questionnaire #1. After submitting this questionnaire participants filled out and submitted a second questionnaire that contained a manipulation check and gathered demographic information.

Dependent Measures

We examine two primary dependent variables—the difference in judgments of current financial performance between Firm A and Firm B, and the difference in investment decisions between Firm A and Firm B. We also asked participants to judge the reliability of each firms' financial statements and use the differences in participants' perceptions of reliability between Firm A and Firm B to evaluate our reliability hypothesis. In questionnaire #1, participants assessed each firm's financial performance on an eleven-point scale, with "very weak" and "very strong" as endpoints. Participants then decided what percentage of $10,000 they would invest in each firm if they could invest in both firms. In questionnaire #2, participants evaluated the reliability of the firms' financial statements on separate 11-point scales with endpoints of "not reliable" and "very reliable."

Using difference measures allows us to examine more precisely the effect of search-facilitating technology by controlling for perceived differences between Firm A and Firm B that are not related to the use of search-facilitating technology. In effect, the difference in participants' performance judgments when both firms use the same accounting treatment (disclosure condition) serves as a benchmark for what their judgments should be if unaffected by

different accounting treatments (recognition condition). Thus, we take the difference in participants' judgments/decisions when Firm B recognizes and Firm A discloses stock option compensation and subtract from this the difference in participants' judgments/decisions between Firm B and Firm A when both firms disclose stock option compensation. This "difference of the differences" serves as our dependent measure in all of our hypotheses tests.

IV. RESULTS

Manipulation Check

Data from questionnaire #2 reflect that 75 percent of participants correctly indicated whether Firm A and Firm B recognized or disclosed stock option compensation information. A Pearson χ^2 test ($\chi^2 = 8.65$, $p < 0.01$, one-tailed) for this frequency indicates a strong association between our intended manipulation and the way participants perceived the materials. Further analysis reveals that the proportion of participants in the searchable conditions who correctly classified the location of the stock option compensation information does not differ from the proportion of participants in the nonsearchable conditions who correctly classified the location of the stock option compensation information ($\chi^2 = 0.24$, $p = 0.63$, two-tailed). In contrast, the proportion of participants in the recognition conditions (where Firm A disclosed and Firm B recognized stock option compensation) who correctly classified the location of the stock option compensation information is lower than the proportion of participants in the disclosure conditions (where Firm A and Firm B both disclosed stock option compensation) who correctly classified the location of the stock option compensation information ($\chi^2 = 9.10$, $p < 0.01$, two-tailed). This result was not unexpected, as we anticipated participants would have a more difficult time recalling whether one firm disclosed and one firm recognized, as well as which

firm disclosed and which firm recognized, than simply recalling that both firms disclosed stock option compensation. Within the recognition and disclosure conditions, participants' classification accuracy for the location of stock option compensation information does not differ between the searchable and nonsearchable conditions (recognition condition: ($\chi^2 = 1.23$, p = 0.27, two-tailed; disclosure condition: ($\chi^2 = 0.60$, p = 0.44, two-tailed).[13] It is therefore unlikely that our results are due to participants in the searchable conditions having better recall ability than participants in the nonsearchable conditions.[14]

Hypotheses Tests

Financial Performance Judgments

      H1 predicts that search-facilitating technology will reduce the influence of recognition versus disclosure on users' financial performance judgments. To test this hypothesis, we compute the difference in participants' financial performance judgments between Firm A and Firm B when Firm A discloses and Firm B recognizes stock option compensation and the difference in participants' financial performance judgments between Firm A and Firm B when both firms disclose stock option compensation. Then, for both the searchable and nonsearchable conditions, we subtract the difference in the disclosure condition from the difference in the recognition condition. Panel A of Table 1 reports descriptive statistics for participants' judgments of current financial performance.

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—Insert Table 1—

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[13] Additionally, tests of the accuracy of participants' responses to a manipulation check question about disclosures for goodwill assets resulted in no differences between the searchable and nonsearchable conditions or the disclosure and recognition conditions (all p-values greater than 0.48, two-tailed).

[14] Rerunning the hypotheses tests using only participants who correctly answered the manipulation check question produces inferentially identical results.

Panel B of Table 1 reports that the difference in participants' judgments of current financial performance for Firm A and Firm B significantly differs between the disclosure and recognition conditions in the nonsearchable format (2.28 versus –0.83, t = 3.34, p < 0.01, two-tailed) but not in the searchable format (2.00 versus 0.88, t = 0.92, p = 0.37, two-tailed). Panel C of Table 1 reports the test of H1 and shows that the difference between the disclosure condition and the recognition condition is less when participants have access to search-facilitating technology than when participants did not have access to search-facilitating technology (1.12 vs. 3.11; t = 1.84, p = 0.04, one-tailed). This suggests that participants' relative evaluation of the current financial performance of the two firms is less influenced by differences in recognition versus disclosure when financial statements are presented in a search-facilitating format versus a nonsearch-facilitating format.

To obtain additional insight into why participants' judgments differ between the searchable and nonsearchable conditions, we asked participants to calculate four ratios for each firm. One ratio was labeled the "human capital productivity ratio" and was described as "total sales / total employee compensation." Results (not presented in tables) indicate that participants who view the materials using search-facilitating technology are more likely to use information in the notes to adjust the denominator (total employee compensation) upward for Firm A (the firm that disclosed stock option compensation) than are participants who do not have access to search-facilitating technology. Nine of 16 participants (56%) in the searchable, recognition condition adjust the denominator of the human productivity ratio upward for Firm A, while only five of 18 participants (28%) in the nonsearchable, recognition condition adjust the denominator upward for Firm A (χ^2 = 2.84, p = 0.05, one-tailed). This result, in conjunction with the results of H1 reported above, suggests that using search-facilitating technology to retrieve footnote

information facilitates integration of the footnote information with financial statement information, which subsequently affects judgments of financial performance.

Investment Decisions

H2 predicts that participants' judgments of financial performance will carry over to their investment decisions. We predict that in the recognition conditions, participants who use search-facilitating technology will be less likely to invest in Firm A (and thus more likely to invest in Firm B) than participants who do not use search-facilitating technology. Panel A of Table 2 presents descriptive statistics for participants' investment decisions, i.e., the percentage of $10,000 that participants invested in Firm A and Firm B.

—Insert Table 2—

Panel B of Table 2 reports that participants' preference for Firm B over Firm A significantly differs between the disclosure and recognition condition in the nonsearchable condition (44% versus –24%, $t = 3.54$, $p < 0.01$, two-tailed) but not in the searchable condition (14% versus 10%, $t = 0.24$, $p = 0.81$, two-tailed). Panel C of Table 2 reports the test of H2 and shows that the difference between the disclosure condition and the recognition condition is less when participants have access to search-facilitating technology than when participants do not have access to search-facilitating technology (4% vs. 68%; $t = 3.19$, $p < 0.01$, one-tailed).[15] These results support H2 and suggest participants' investment decisions are less influenced by differences in recognition versus disclosure when financial statements are presented in a search-facilitating format versus a nonsearch-facilitating format.

Note that, in the absence of search-facilitating technology, participants' preference for Firm B (Firm A) "flipped" between the disclosure and recognition conditions. Panel A of Table 2

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[15] Results using a second investment-decision variable that forced participants to invest all of their $10,000 in either Firm A or Firm B are inferentially identical to the results reported in Table 2.

shows that in the disclosure condition, participants elect to invest a higher percentage of their funds (72%) in Firm B, but in the recognition condition, the opposite is true; participants elect to invest a higher percentage of their funds (62%) in Firm A. In the absence of search-facilitating technology, participants' preference for Firm B (Firm A) in the recognition condition differs from their preference for Firm B (Firm A) in the disclosure condition (all p-values less than 0.01, two-tailed). In contrast, with search-facilitating technology, participants' preference for Firm B (Firm A) does not differ between the recognition and disclosure conditions (all p-values greater than 0.81, two-tailed).

Reliability Judgments

H3 predicts that users' judgments of financial statement reliability will be more influenced by the choice of recognition versus disclosure in the searchable condition than in the nonsearchable condition. Panel A of Table 3 presents descriptive statistics for participants' judgments of financial statement reliability.

—Insert Table 3—

Using comparisons relative to the benchmark disclosure condition, Panel B of Table 3 reports that the difference in participants' judgments of financial statement reliability for Firm A and Firm B significantly differs between the disclosure and recognition condition in the nonsearchable condition (0.11 versus 1.18, t = 2.54, p = 0.02, two-tailed) as well as in the searchable condition (–0.33 versus 2.19, t = 3.46, p < 0.01, two-tailed). Panel C of Table 3 reports the test of H3 and shows that the difference between the disclosure condition and the recognition condition is greater when participants have access to search-facilitating technology than when participants did not have access to search-facilitating technology (–2.52 vs. –1.07, t = 2.48, p = 0.01, one-tailed). These results support H3 and suggest that users' perceptions of financial statement reliability are more influenced by recognition versus disclosure of stock

option compensation when financial statements are presented in a search-facilitating format versus a nonsearch-facilitating format.[16]

Sensitivity Analysis

In this section we report how including all subjects in the XBRL conditions affects our hypotheses tests. We also report whether the 31 participants who used the search engine in the searchable conditions differ from the 36 participants in the nonsearchable conditions across ten different demographic/performance variables. Where differences exist, we report the effect of including these variables as covariates in our hypotheses tests.

Our hypotheses tests are reported in Panel C of Tables 1 – 3. Using all participants in the searchable conditions, regardless of whether they used the search engine, changes the reported p-values in the following ways: H1 is not supported (Table 1 Panel C: p-value goes from 0.04 to 0.14), H2 is supported (Tables 2 Panel C: p-values goes from 0.00 to 0.02), and H3 is supported (Table 3 Panel C: p-value goes from 0.01 to 0.10). Including participants in the searchable conditions who did not use the search engine weakens our results, but does not change our overall conclusions. Moreover, the responses of participants in the searchable conditions who did not use the search engine are not significantly different from the responses of participants in the nonsearchable conditions, but are significantly different from those in the searchable conditions who did use the search engine. In other words, not surprisingly, if participants in the searchable conditions did not use the search engine they responded to questions no differently than participants who did not have access to the search engine.

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[16] Participants also evaluated the reliability of the footnote information. In general, mean footnote reliability judgments do not significantly differ between the searchable and nonsearchable conditions and between the disclosure and recognition conditions.

We next compare whether participants who used the search engine in the searchable conditions differ from participants in the nonsearchable conditions across ten different demographic/performance variables.[17] Our purpose in making these comparisons is to rule out alternate explanations (e.g., participants who elected to use the search engine are more intelligent than participants in the nonsearchable conditions) for the differences reported in Tables 1 – 3. Participants provided inputs to eight of the ten variables while answering questionnaire #2. The two variables not garnered from questionnaire #2 are the time needed to complete the case and participants' grades. We collected information on the time each participant used to complete the case while participants completed the experiment, and we collected information on participants' grades after they had completed the financial statement analysis course from which they were recruited. Across seven of the ten variables, there are no significant differences between participants who used the search engine in the searchable conditions and participants in the nonsearchable conditions (all p-values greater than 0.20, two-tailed). There are significant differences (p-values less than 0.10, two-tailed) across three of the variables: the number of participants who had previously evaluated a firm in the medical supply industry, the number of accounting classes taken, and the number of finance classes taken. None of these variables are significantly correlated with our dependent variables (all p-values greater than 0.17, two-tailed), and including these variables as covariates in our hypotheses tests does not alter our results: all p-values reported in Panel C of Tables 1 – 3 are identical.

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[17] The ten variables are: (1) grades, (2) time needed to complete the case, (3) classification of stock option compensation information, (4) identification of whether either firm disclosed or recognized goodwill, (5) familiarity with using a price/earnings approach to value a firm, (6) familiarity with using financial statements to value a firm, (7) number of participants who have bought or sold an individual firm's common stock or debt securities, (8) number of participants who have previously evaluated a firm in the medical supply industry, (9) the number of accounting classes taken, and (10) the number of finance classes taken.

Overall, sensitivity analysis provides additional evidence that our manipulations are responsible for the differences reported in Tables 1 – 3, not differences in participants' intelligence, motivation, personal background characteristics, or other extraneous variables.

V. SUMMARY AND CONCLUSIONS

This paper investigates the potential for search-facilitating technology to improve the transparency of financial reporting, using the context of recognition versus disclosure of stock option compensation. We find that individuals' relative financial performance judgments and investment decisions are influenced by recognition versus disclosure in the absence, but not in the presence, of search-facilitating technology. Moreover, individuals perceive greater differences in financial statement reliability between recognition and disclosure when search-facilitating technology is available. These results and supporting analyses on participants' ratio adjustments suggest that search-facilitating technology assists financial statement users in finding and using information in the footnotes to adjust firms' financial statements to the same basis.

Our results further suggest that the presence of search-facilitating technology is not a universal remedy for differences between recognition versus disclosure created by cognitive processing. Approximately 50% of participants in our experiment did not use the available technology. This suggests that wide publicity about the benefits of search-facilitating technology may be needed to induce financial statement users to access the technology.

There are several implications of this study. First, our findings provide further support that at least some of the recognition versus disclosure differences noted in the archival and experimental literature are due in part to cognitive processing difficulties. Second, the results suggest that widespread implementation of search-facilitating technology might mitigate managers' lobbying for and choice of disclosure over recognition by reducing the conditions that

lead to differences in users' perceptions under these two approaches. This benefit likely extends to issues other than recognition versus disclosure, including choice of different cost flow assumptions (e.g., LIFO versus FIFO) and capital versus operating leases.

Results of this study also suggest that technology may mitigate differences between nonprofessional and professional users. As indicated, search-facilitating technology acts as a type of decision aid by bringing together pieces of related information. This, in part, substitutes for knowledge possessed by professional users that leads to a directed search for these information items. Additionally, if nonprofessional investors don't know how to evaluate and integrate information presented simultaneously by search-facilitating technology, the technology should help make them aware of certain limitations in their knowledge.

Finally, our results raise the issue that earnings management in the future may not simply require management of the financial numbers, but also management of the "data tags" in the search-facilitating technology. Thus, what constitutes "appropriately" tagged information may in the future be as hotly debated as recognition versus disclosure of stock options is today. Additionally, auditors' role likely will expand to include auditing of their clients' footnote terminology and use of data tags.

This study is subject to several limitations. First, we limit the amount of information participants receive to a subset of that available on most corporate Web sites so that participants can complete the task in a reasonable amount of time. Most firms' Web sites are more complex than our experimental setting. This reduced complexity biases against our predictions, and suggests that search-facilitating technology may have a greater impact on users' processing of actual financial statements in more complex environments. Future research could examine how investor judgments are affected by search-facilitating technology in more complex environments.

Second, by using a subset of participants in the searchable conditions to test our hypotheses we cannot definitively rule out that an extraneous variable, and not the acquisition and integration power of search-facilitating technology, is responsible for the effects we observe. Although we conduct several sensitivity tests and do not detect evidence that an extraneous variable is responsible for our results, we cannot completely eliminate this possibility.

Third, we use graduate business students as surrogates for online investors. Though graduate business students exhibit demographic characteristics similar to online investors, some have limited investment experience and therefore may not reflect the beliefs, or use the analytical techniques, of actual investors. Additionally, given the heterogeneity in individual investors', the use of any one group likely will not generalize to all individual investors. Despite these limitations, this study provides descriptive *ex ante* evidence to regulators, financial information providers, and financial information users that issuing financial reports in a format that is easily searchable, like XBRL, assists nonprofessional users in the acquisition and use of decision-relevant information.

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TABLE 1

Does Search-facilitating Technology affect Financial Statement Users' Financial Performance Judgments?

Panel A: **Descriptive statistics for judgments of financial performance (mean [standard deviation])[a]**

Placement of Information[b]

Presentation[c]	Disclosure condition: Firm A: Footnote Firm B: Footnote	Recognition Condition: Firm A: Footnote Firm B: Income Stmt	Difference Disclosure – Recognition
Searchable	*n* = 15	*n* = 16	
Firm A	5.80 [1.61]	5.31 [2.52]	
Firm B	7.80 [1.47]	6.19 [2.23]	
B – A	2.00 [1.73]	0.88 [4.53]	1.12 [3.47]
Nonsearchable	*n* = 18	*n* = 18	
Firm A	5.78 [2.21]	6.94 [2.18]	
Firm B	8.06 [1.47]	6.11 [1.68]	
B – A	2.28 [2.30]	–0.83 [3.22]	3.11 [2.80]

Panel B: **Planned comparisons of financial performance differences**

Condition	Disclosure		Recognition	*df*	t-statistic[d]	*p*-value[e]
Searchable	2.00	versus	0.88	20	0.92	0.37
Nonsearchable	2.28	versus	–0.83	31	3.34	0.00

Panel C: **Planned comparison of the difference in financial performance differences – H1**

Condition	Searchable		Nonsearchable	*df*	t-statistic	*p*-value[f]
Disclosure – Recognition	1.12	versus	3.11	32	1.84	0.04

Notes:

[a] Participants received summary financial statements and other general information for two firms (Firm A and Firm B) in the medical equipment and supplies industry. Participants evaluated the financial performance of each firm for the most recent fiscal year on an 11-point scale with end points labeled, "very weak" and "very strong."

[b] Firm A always disclosed the cost of stock options in the footnotes, Firm B disclosed the cost of stock options in the footnotes in one condition (disclosure condition) and recognized the cost of stock options in the income statement (recognition condition) in the other condition.

[c] Participants received financial statements in either a format that had a search engine (searchable) or did not have a search engine (nonsearchable).

[d] Levene's test for unequal variances is significant for the comparisons reported in Panel B of Table 1. We therefore report results of t-tests that do not assume equal variances. Non-parametric Mann-Whitney U-tests yield inferentially identical results.

[e] Consistent with a non-directional prediction, p-value is two-tailed.

[f] Consistent with a directional prediction, p-value is one-tailed.

TABLE 2
Does Search-facilitating Technology affect Financial Statement
Users' Investment Decisions?
Percentage of $10,000 Invested in Firm A and Firm B

Panel A: Descriptive statistics for investment decision (mean [standard deviation])[a]

	Placement of Information[b]		
Presentation[c]	Disclosure condition: Firm A: Footnote Firm B: Footnote	Recognition Condition: Firm A: Footnote Firm B: Income Stmt	Difference Disclosure – Recognition
Searchable	*n* = 15	*n* = 16	
Firm A	43% [23%]	45% [33%]	
Firm B	57% [23%]	55% [33%]	
B – A	14% [46%]	10% [66%]	4% [57%]
Nonsearchable	*n* = 17	*n* = 18	
Firm A	28% [21%]	62% [36%]	
Firm B	72% [21%]	38% [36%]	
B – A	44% [42%]	−24% [72%]	68% [59%]

Panel B: Planned comparisons of investment differences

Condition	Disclosure		Recognition	*df*	t-statistic[d]	*p*-value[e]
Searchable	14%	versus	10%	27	0.24	0.81
Nonsearchable	44%	versus	−24%	28	3.54	0.00

Panel C: Planned comparison of the difference in investment differences – H2

Condition	Searchable		Nonsearchable	*df*	t-statistic	*p*-value[f]
Disclosure – Recognition	4%	versus	68%	31	3.19	0.00

Notes:
[a] Participants received summary financial statements and other general information for two firms (Firm A and Firm B) in the medical equipment and supplies industry. Participants made a decision about the percentage of $10,000 to invest in Firm A and Firm B.
[b] Firm A always disclosed the cost of stock options in the footnotes, Firm B disclosed the cost of stock options in the footnotes in one condition (disclosure condition) and recognized the cost of stock options in the income statement (recognition condition) in the other condition.
[c] Participants received financial statements in either a format that had a search engine (searchable) or did not have a search engine (nonsearchable).
[d] Levene's test for unequal variances is significant for the comparisons reported in Panel B of Table 2. We therefore report results of t-tests that do not assume equal variances. Non-parametric Mann-Whitney U-tests yield inferentially identical results.
[e] Consistent with a non-directional prediction, p-value is two-tailed.
[f] Consistent with a directional prediction, p-value is one-tailed.

TABLE 3
Does Search-facilitating Technology affect Financial Statement
Users' Reliability Judgments?

Panel A: **Descriptive statistics for judgments of financial statement reliability (mean [standard deviation])[a]**

Placement of Information[b]

Presentation[c]	Disclosure condition: Firm A: Footnote Firm B: Footnote	Recognition Condition: Firm A: Footnote Firm B: Income Stmt	Difference Disclosure – Recognition
Searchable	*n* = 15	*n* = 16	
Firm A	7.13 [1.73]	6.13 [2.39]	
Firm B	6.80 [2.04]	8.31 [1.70]	
B – A	–0.33 [0.98]	2.19 [2.74]	–2.52 [2.08]
Nonsearchable	*n* = 18	*n* = 18	
Firm A	7.28 [1.99]	7.06 [1.98]	
Firm B	7.39 [1.94]	8.12 [1.32]	
B – A	0.11 [0.32]	1.18 [1.70]	–1.07 [1.21]

Panel B: **Planned comparisons financial statement reliability differences**

Condition	Disclosure		Recognition	*df*	t-statistic[d]	*p*-value[e]
Searchable	–0.33	versus	2.19	19	3.46	0.01
Nonsearchable	0.11	versus	1.18	17	2.54	0.02

Panel C: **Planned comparisons of the differences int reliability differences – H3**

Condition	Searchable		Nonsearchable	*df*	t-statistic	*p*-value[f]
Disclosure – Recognition	–2.52	versus	–1.07	31	2.48	0.01

Notes:

[a] Participants received summary financial statements and other general information for two firms (Firm A and Firm B) in the medical equipment and supplies industry. Participants evaluated the reliability of financial statements and footnotes of each firm on separate 11-point scales with end points labeled, "not reliable" and "very reliable." Reliability was defined as "the extent to which information is measured with little uncertainty, is verifiable, and reflects a company's business activities in a neutral, unbiased manner."

[b] Firm A always disclosed the cost of stock options in the footnotes, Firm B disclosed the cost of stock options in the footnotes in one condition (disclosure condition) and recognized the cost of stock options in the income statement (recognition condition) in the other condition.

[c] Participants received financial statements in either a format that had a search engine (searchable) or did not have a search engine (nonsearchable).

[d] Levene's test for unequal variances is significant for the difference comparison reported in Panel B of Table 3. We therefore report results of a t-test that does not assume equal variances. Non-parametric Mann-Whitney U-test yields inferentially identical results.

[e] Consistent with a non-directional prediction, p-value is two-tailed.

[f] Consistent with a directional prediction, p-value is one-tailed.

Appendix A
Example of Homepage for Firm A (searchable condition)

IMPORTANT

General Instructions

MEDIREADY

- Income Statement
- Balance Sheet
- Cash Flow Statement
- Notes
- Auditor Report

SUPPLYMED'S

Home Page

Questionnaire 1

MEDIREADY'S HOME PAGE

Please use the menu bar to your left and the search engine below to conduct your analysis

XBRL SEARCH ENGINE   What is XBRL? (click here to find out)

Search for note information on **Mediready**: Select an option ▾

SUPPLYMED'S
Home Page

Questionnaire 1

	164	149	151
Salary expense	69	87	97
Research and development expense	96	92	88
Interest and other financing expenses, net	62	44	41
Operating income	93	87	66
Income tax expense	32	30	23

XBRL SEARCH ENGINE   What is XBRL? (click here to find out)

Search for note information on **Mediready**: Select an option ▼

Year ended June 30	2001	2000	1999
Salary expense (see note below)	69	87	97

Notes: Employee stock option plans

The Company has stock option plans for directors, officers, and employees. At June 30, 2001, options for five million shares were vested. These options were issued at market value and, in accordance with the intrinsic value approach in APB 25, the company did not recognize compensation expense related to options. An alternative method of accounting for stock options under SFAS 123 is the fair value approach in which the fair value of the options at the grant date is recognized as compensation expense over the vesting period. Had compensation costs for the Company's stock option plan been recognized on the income statement, salary expense for 2001, 2000, and 1999 would have been $154 million, $139 million, and $111 million, respectively, and net income for 2001, 2000, and 1999 would have been $5 million, $23 million, $34 million, respectively.

Appendix C
Example of Homepage for Firm A (nonsearchable condition)

IMPORTANT

General Instructions

MEDIREADY'S
FINANCIAL
STATEMENTS

SUPPLYMED'S
FINANCIAL
STATEMENTS

Questionnaire 1

MEDIREADY'S HOME PAGE

1 of 6   8.5 x 11 in