The Effects of Voluntary Human Capital Disclosures on Investors' Decision-Making and Assessments of Firm Value

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ABSTRACT

Many companies claim human capital is an important asset and source of valuable earnings, yet company disclosures about human capital remain voluntary. This research paper investigates the relevance and reliability of voluntary human capital disclosures using active investors in an experimental setting. The experiment manipulates firm financial performance, non-GAAP voluntary disclosures, and disclosure attestation to identify the extent to which human capital disclosures influence investor decision-making related to assessments of management credibility and firm value.

The primary premise examines whether firms providing strong human capital disclosures will have higher credibility ratings and stock price assessments than firms not providing such disclosures. Results show that when presented with human capital metrics, investors' assessments of credibility and firm stock price are increased by human capital disclosures, especially during periods of strong financial performance. Results also suggest investors use both non-financial and financial human capital metrics. Based on cognitive processing time, additional analyses indicate investors spend more time processing strong human capital disclosures. Another important premise examines if firms receiving attestation services over voluntary human capital disclosures will have higher credibility ratings than firms not receiving such services. Evidence partially suggests investors cognitively acknowledge the presence of auditor attestation reports when they are presented, and both credibility and stock price assessments are impacted by attestation services.

Overall, the original research described here makes a contribution to the existing literature by providing unique insight as to how human capital information is viewed by investors. Current reporting standards focus on financial assets, physical assets, and technological/intellectual property. This can result in significant transparency issues when publicly traded firms fail to adequately disclose human capital risks. Organizations undoubtedly have substantial unreported human capital benefits and risks, which can have a potentially significant market valuation impact.

Keywords: Human capital, Audit disclosures, Attestation, Management reporting credibility

I. INTRODUCTION

While companies claim human capital is an important asset and source of valuable earnings, there is nary a human asset found in financial statements (CIMA and AICPA 2012).[1] Irrespective of this absence in prescribed accounting statements, human capital is now the primary source of wealth creation in developed nations, with all signs indicating the importance of human capital will only continue to grow (Christian 2010; Wright et al. 2014). McKinsey and Company posit that the most important corporate resource over the next 20 years will be human capital, as it is the premier source of future competitive advantage for a firm (cited in Gnyawali and Offstein 2008). Research also shows firms that excel at human capital management significantly outperform their counterparts (Bird et al. 2007; CIMA and AICPA 2012). However, investors currently have little information to help distinguish between firms *promoting* human capital and firms *straining* human capital (Vithana et al. 2011). Firms *promoting* human capital recognize the competitive advantage of the workforce, and work to mitigate human capital risks such as undesired turnover. Firms *straining* human capital fail to clearly understand the importance of the workforce as a key source for the generation of revenues and the creation of value.

The research described here investigates the usefulness and importance of human capital metrics and voluntary human capital disclosures. The behavioral experiment attempts to identify the extent to which voluntary disclosures of human capital metrics influence investor decision-making related to assessments of disclosure credibility and firm value. From a political economy perspective, the disclosure of such human metrics, if valued, should have positive impacts on firm management credibility, as well as on firm value. Fundamentally, this is an interesting and relevant research setting to examine whether investors really do value what company management often declares to be "the most important asset."

This research also investigates the effects of auditor attestation services. The broad array of information used in making business decisions has expanded rapidly and extensively subsequent to the Sarbanes-Oxley Act, creating a strong demand for new types of auditor assurance services. Furthermore, the public accounting profession has a long history of developing and working with the AICPA assurance methodology, while auditors, with extensive knowledge of systems, processes, and frameworks, have the capability to identify misstatements and discrepancies in voluntary disclosures. Therefore, management could seek out attestation credibility for human capital disclosures as a way to add incremental transparency value, and to further reduce the cost of raising financial capital (Dhaliwal et al. 2011). Recent actions by the AICPA and the National Association of State Boards of Accountancy (NASBA) to change the definition of "attest" in the Uniform Accountancy Act (UAA) provide additional incentive to understand the current benefits of auditor attestation reports. Specifically, the AICPA and NASBA have proposed an amendment that would require that only CPAs operating within a CPA firm could perform examinations, reviews, and agreed upon procedures under SSAEs.[2]

[1] Chartered Institute of Management Accountants and American Institute of Certified Public Accountants 2012.
[2] See the AICPA meeting agenda and materials related to the attest definition change at: http://www.aicpa.org/research/standards/auditattest/asb/pages/asbmeetingagendaandmaterialsjuly2012.aspx.

II. BACKGROUND AND HYPOTHESIS DEVELOPMENT

2.1 Human Capital

Human capital is defined as the combination of factors possessed by individuals and the collective workforce of a firm (Abeysekera 2008; Flamholtz 1972; Lev and Schwartz 1971). Human capital includes knowledge, skills and technical ability, personal traits (e.g., attitude, commitment, intelligence), ability to learn, creativity, leadership, and teamwork. Employees and their idiosyncratic knowledge and capabilities can become central to a firm's success, as well as represent a key source of value creation and revenue generation. By providing investors with evidence of long-term value creation through emphasis on human capital, companies can help reduce excessive short-term financial emphasis. Consequently, companies that believe in the superior value of their human capital have good reason to share any information that may improve public perception of their financial capital (Vithana et al. 2011). Leading edge companies such as Google, Best Buy, and Sysco have already adopted sophisticated methods of analyzing employee data to enhance their competitive advantage (Davenport et al. 2010).

Regulatory securities commissions, such as the Securities and Exchange Commission (SEC) in the United States, require extensive disclosure regarding all major assets. However, they do not require disclosure of what, for most organizations, is their largest asset: the workforce (HCMI 2012). This creates two issues of significance. First, and perhaps most intriguingly, there is a transparency issue when publicly traded organizations fail to adequately disclose human capital issues and risks of significant value. Second, the lack of disclosure obscures a company's talent management effectiveness. With no transparency of the efficient utilization of the typical firm's single largest asset and expense, investors are expected to rely on historical financial performance and management's voluntary discussion of the business. Undoubtedly some organizations have substantial unreported human capital risks and, at present, there are no standards guiding this information.

Voluntary human capital disclosures have just started to appear in traditional financial statement packages in Australia, Canada, China, Finland, New Zealand, Norway, Sweden, the United Kingdom, and even the United States (Christian 2010). The extent of these disclosures across countries is minimal, however, and with no specific reporting standards there is little consistency between companies and countries (Subbarao and Zeghal 1997). Therefore, it currently remains relatively premature to identify a large population of firms disclosing human capital metrics. However, the Human Capital Management Institute (HCMI 2012) and academics (Wright et al. 2014) still assert human capital statements can be structured in such a way as to provide a clear, quantitative standard with which investors can gain insight, instead of relying on anecdotal examples and instinct. Human capital metrics often provide the greatest incremental insight when they appear at "odds" with traditional financial measures, and when interpreted in light of appropriate context. For example, if traditional financial results are disappointing for a specific reporting period, but human capital measures are trending positively, investors might consider this a potentially important leading indicator that financial performance will improve in future reporting periods.

True integration of human capital valuation in existing financial statements is difficult for two reasons (Luft 2009). First, present rules-based accounting standards (i.e., GAAP) neither require, nor allow, straight up valuation of human resources. Even principle-based international standards (i.e., IFRS), though pressing a more flexible valuation agenda overall, do not promulgate the recording of human capital in financial statements. Second, there is no objective, verifiable way of putting a value on human capital such that it could appear on the traditional balance sheet. While nonhuman capital such as equity shares can be traded on the open market, human capital never falls under true ownership of any firm (Flamholtz 1972; Gnyawali and Offstein 2008). Furthermore, individual human capital can transfer firms, leaving little benefit or value to the prior firm upon departure (Arthurs et al. 2009; Gnyawali and Offstein 2008).

Despite the hardship of human capital valuation, research shows the measurement of human capital through nonfinancial metrics can help solve certain transparency issues and information asymmetry concerns in the interest of capital accumulation (Arthurs et al. 2009; Welbourne and Andrews 1996; Abeysekera 2008), as well as improve investment decisions, amplify cross-company benchmarking techniques, and link financial results to the workforce (Abeysekera 2008; CIMA and AICPA 2012; Williams 1999). Further linking transparency and voluntary disclosure, Cheung et al. (2010) find there is a positive and significant relation between firm transparency, delivered through voluntary disclosure, and market valuation.

Human Capital and Accounting Research

There is currently limited recent academic work linking human capital and accounting valuation in accounting-specific research, however, what has been done to date supports a significant connection between the two. Pantzalis and Park (2009) investigate whether, and how well, firms' stock market valuations reflect their employees' collective skills and effectiveness relative to that of their industry peers and competitors. Results indicate, controlling for firm effects and risks, that portfolios with strong human capital skills and effectiveness systematically outperform portfolios with weak human capital skills and effectiveness. In addition, research by Bontis and Fitz-Enz (2002) and Bassi and McMurrer (2004) demonstrate a clear linkage between investment in human capital and public U.S. company stock prices. This research specifically shows a relationship between a firm's training investments and stock performance in the following year. For example, the stronger human capital investment portfolios of Bassi and McMurrer (2004) outperformed the S&P 500 market by 3.1%-4.4% annually.

Prior research has also linked employee metrics to earnings quality (Kim et al. 2012) and to financial performance (Margolis and Walsh 2001; Waddock and Graves 1997). Providing support that human capital metrics are not just a first world ideal, Orazem and Vodopivec (1997) find evidence pointing to rapidly increasing marginal returns from human capital in transition economies. In initial public offerings, results indicate that human resource value can predict initial investor reaction and the long-term firm survival (Welbourne and Andrews 1996).

2.2 Voluntary Disclosure

In accounting practice, a primary mechanism for firm transparency is disclosure. Research on voluntary disclosure continues to focus on firm motives for accounting disclosure, while

acknowledging the intersection with positive accounting theory (Healy et al. 1999; Healy and Palepu 2001; Healy and Palepu 1993). Following Healy and Palepu (2001), there are three primary economic outputs from voluntary firm disclosure: 1) improved stock liquidity; 2) reduced cost of capital; and 3) increased information intermediation. Research by Diamond and Verrecchia (1991) and Kim and Verrecchia (1994) find investors can have increased confidence that stock transactions occur at fair prices when firms have high levels of disclosure. This consequently increases the liquidity in the firm's stock. Furthermore, Healy et al. (1999) find firms that expand disclosures experience significant contemporaneous increases in stock prices that are unrelated to current earnings performance, while Gelb and Zarowin (2002) find firms that expand disclosures have high stock price associations with contemporaneous and future earnings relative to firms that do not expand disclosures.

In regard to cost of capital, literature shows there is consistently a negative relationship between the extent of voluntary disclosures and the cost of equity capital (Botosan 1997; Botosan and Plumlee 2002; Piotroski 1999). However, more recent research related to management earnings forecasts indicate there may be different information content between good news and bad news forecasts, which may then have asymmetric impacts on the cost of equity capital (Kim and Shi 2011). Specific findings indicate bad news forecasters experience a significant increase in the cost of equity capital after managers disclose their earnings, but good news forecasters do not experience significant changes in the cost of equity capital after managers disclose their earnings. These results are robust across the magnitude of changes in the cost of capital for good news forecasters and bad news forecasters (Kim and Shi 2011). Kothari et al. (2009) and Rogers et al. (2009) both find good news disclosure from management may lack credibility, and is therefore discounted in the market by investors in the short-term. While disclosure is inherently desirable for users of financial statements, Loewenstein et al. (2011) challenge whether, and to what extent, disclosures actually improve economic outcomes. The magnitude of economic impact depends critically on what information is delivered, how it is delivered, and how it is utilized.

Political economy theory posits disclosure in accounting reports such as annual reports is viewed as a means to create, sustain, and legitimize activities in the private interests of the firm (Williams 1999). Following political economy theory, as well as Fennema and Koonce (2012), a firm with positive human capital metrics can use timely voluntary disclosures as a suitable and germane way to reduce the cost of raising financial capital. Similar voluntary disclosure activities take place over firm Corporate Social Responsibility (CSR) activities. When CSR information is voluntarily disclosed, Ball et al. (2000) and Adams (2004) find the disclosures are used to support management objectives and bolster the firm's desired image. Al-Tuwaijri et al. (2004) find that good disclosure of CSR information is associated with good CSR performance, which in turn manifests in improved firm performance.

2.3 Accounting Assurance

Post Sarbanes-Oxley, the broad array of information used in making business decisions has expanded rapidly and extensively, creating a strong demand for new types of assurance and attestation services. Much of the value in today's global market is largely contained within processes, markets, and nonfinancial resources. For example, in some countries upwards of 50% of a nation's gross domestic product is based in knowledge, which is imbedded in human capital

(Gnyawali and Offstein 2008). Furthermore, McKinsey and Company posit that the most important corporate resource over the next 20 years will be human capital, as it is the premier source of future competitive advantage for a firm (cited in Gynawali and Offstein 2008). In theory, but more importantly in practice, companies can have modest financial statements relative to market value, but possess excellent intellectual resources, efficient processes, and outstanding potential in exploding markets. Consequently, there should be a demand for professional services that provide assurance regarding information quality. Investors, managers, customers, and other users of firm information should demand high quality information that is relevant, reliable, timely and, in an appropriate mode and format. A major challenge for providers of assurance and attestation services in meeting these demands is to construct services that abide by, and meet, ASB and AICPA standards (O'Dwyer 2011).

Similar to human capital information, firms choosing to disclose corporate social responsibility (CSR) information do so voluntarily. Assurance services over CSR reports are associated with lower analyst forecast error (Dhaliwal et al. 2012). Findings from Dhaliwal et al. (2011) also indicate external assurance on voluntary CSR disclosures significantly reduces the cost of equity capital. It follows that reports for which attestation services are received are likely to be more informative to analysts and financial statement users. This aligns with research conducted by Simnett et al. (2009), which provides evidence that firms seeking to enhance the credibility of their CSR reports are more likely to have their CSR report assured.

The above discussion indicates that assurance and attestation services can act as a useful control mechanism to enhance the credibility of disclosed information and facilitate greater user confidence. Hence, it should result in more appropriate resource allocation decisions and credibility assessments by investors when human capital disclosures are present.

2.4 Hypotheses & Research Question

In forming hypotheses from the above, this paper two overarching questions: 1) Do investors perceive voluntary human capital disclosures and auditor attestation as credible? and 2) Do investors perceive voluntary human capital disclosures and auditor attestation as informative regarding firm value? To address the first overarching question, Mercer (2005) suggests more forthcoming disclosure leads to higher perceived credibility. Firms who are able to credibly communicate information have less analyst forecast dispersion, lower analysts forecast errors, lower bid-ask spreads, and lower costs of capital than less credible firms (Barron et al. 1999; Botosan 1997; Sengupta 1998; Healy et al. 1999). Firms should therefore be highly concerned about the credibility of disclosures because credibility is associated with firm value. Voluntary disclosure literature has also examined the economic outputs of disclosure, including improved stock liquidity, reduced cost of capital, and increased information intermediation (Healy and Palepu 2001).

Other literature cited in Section 2.3 indicates assurance serves as a useful control mechanism to enhance the credibility of disclosed information and facilitates greater user confidence. Although Hobson and Kachelmeier (2005) suggest managers have incentive to distort disclosures, voluntary disclosure literature over nonfinancial reporting metrics finds evidence suggesting the incorporation of assurance services is related to the incentive of firms to increase

the credibility of their reporting (Simnett et al. 2009). In addition, assurance services over voluntary nonfinancial reports are associated with lower analyst forecast error and reduced cost of equity capital (Dhaliwal et al. 2012).

It follows that firms who provide voluntary information about positive human capital and auditor attestation should have higher perceived credibility than firms who do not provide such disclosures. This leads to the first hypothesis, to be tested using experimental methodologies:

> **H_1**: Firms providing strong voluntary human capital disclosures accompanied by an auditor attestation report will be rated as having higher credibility than firms that do no provide such disclosures or auditor attestation.

To address the second overarching question, Pantzalis and Park (2009) find investment portfolios with strong human capital skills systematically outperform portfolios with weak human capital skills. Bontis and Fitz-Enz (2002) and Bassi and McMurrer (2004) also specifically show a relationship between investments in employee training and stock performance in the following year. Additional studies also indicate more complete disclosures are associated with positive stock price effects (Botosan 1997; Miller 2002). Therefore, the following hypothesis is proposed to address the relationship between human capital metrics, auditor attestation, and firm market value, which will be tested using experimental methodologies:

> **H_2**: Firms providing strong voluntary human capital disclosures accompanied by an auditor attestation report will have higher stock price assessments than firms that do no provide such disclosures or auditor attestation.

Finally, research shows the measurement of human capital through nonfinancial metrics can help solve certain transparency issues and information asymmetry concerns, as well as improve investment decisions, amplify cross-company benchmarking techniques, and link financial results to the workforce (Abeysekera 2008; CIMA and AICPA 2012; Williams 1999). As previously stated, human capital metrics can often provide the greatest incremental insight when they appear at "odds" with traditional financial measures. This leads to the following research question, to be tested using experimental methodologies:

> **RQ_1**: Do investors react differently when firm financial results (strong or weak) interact with human capital disclosures (strong or baseline) and when the human capital disclosures are accompanied by an independent assurance report?

III. RESEARCH DESIGN AND METHODOLOGY

3.1 Participants

The experimental case was completed online by both non-professional and professional investors who had conducted at least one (1) buy or sell stock transaction within the last twelve

(12) months.[3] All participants were recruited with the assistance of Qualtrics. Before being invited to participate in the case, Qualtrics verified participating individuals met the desired investor criteria using information previously supplied to Qualtrics by the participants. Once participants provided their informed consent to complete the experiment, they also had to reaffirm they met the desired investor criteria by answering questions about their recent investing activity. If participants did not meet the required investor criteria, their participation in the survey was terminated.[4]

The final sample contains responses from 191 individuals.[5] Demographic information detailed in Table 1, Panel B indicates participants in the experimental sample have sufficient knowledge to complete the experimental procedures.[6] The mean investing experience is 11.6 years, with approximately 23.0% of participants indicating they conduct stock transactions as part of their normal employment responsibilities. Participants made, on average, 91.9 stock transactions in the last year, actively trading approximately 49.2% of their personal portfolio. Participants analyzed financial statements over 8 times in the last year, reading the audit report 67.0% of the time and reading financial statement disclosures 73.3% of the time. Over 62% of participants indicated their personal portfolio contained software stock(s). Of these participants, software stock accounts for approximately 37.4% of their portfolio.

3.2 Experimental Materials & Independent Variables

Each participant completed an investment case, modified from Mercer (2005), for a hypothetical company.[7] The instrument revolves around a hypothetical software company, and

[3] The use of online methods to recruit subjects is an emerging technique utilized in various disciplines including accounting (e.g. Brown et al. 2011; Rennekamp 2012; Brown-Liburd et al. 2012; Lambert et al. 2012; Brazel et al. 2012).

[4] Participants were pre-screened through Qualtrics based on self-reported investible assets of at least $10,000 and being at least eighteen (18) years of age. When completing the investment case, participants were asked to confirm they had purchased or sold at least one (1) individual stock (not mutual fund or index fund) within the previous twelve (12) months. Based on the age and desired investing experience screens set for participants, Qualtrics charged $6 per participant. Approximately $2 was paid to each participant, with the remaining $4 retained by Qualtrics for technical support, administrative fees, and participant recruitment expenses. Qualtrics maintained anonymity of investor responses throughout the entire experiment and there was no direct contact with the participants. In addition, Qualtrics mediated compensation between all participants and the researcher.

[5] In total, two hundred forty (240) participants completed the experimental study. However, only one hundred ninety-two participants (80.0%) correctly responded to all three manipulation check questions. One (1) final experimental participant was also excluded from final analyses due to extreme outlier demographic responses, thus leaving a final experimental pool of one hundred ninety-one participants (n = 191). See Table 1, Panel A for a breakdown of the final experimental sample. There is no significant difference (all $p > 0.10$) between experimental cells for any demographic factors. These findings provide evidence that work experience, investment experience, and other demographics of the final experimental pool are consistent across all groups.

[6] Participant demographics are comparable to similar studies using investors in an experimental setting (Mercer 2004; Mercer 2005; Ozlanski 2013).

[7] In an experimental setting utilizing 244 MBA students as proxies for investors, Mercer (2005) found that managers' disclosure decisions affect their credibility with investors. More specifically, more forthcoming disclosure has a positive effect on the reporting credibility of management, especially when management is forthcoming about negative news. However, these credibility effects do not persist over time.

participants are asked to assess both the reporting credibility of management and the company's stock price. See Figure 1 for a flowchart of experimental procedures.[8]

First, participants provided informed consent and reaffirmed they possessed the required attributes of an investor. Participants then received an overview of the company, a set of the company's prior year financial statements, the auditor report related to the company's prior year financial statements, a consensus earnings announcement for the current quarter, and a final earnings announcement for the current quarter. The first manipulation sets participants' expectations in an investment scenario, based on the financial statements and earnings information. This high (low) performing firm manipulation sets the tone for a potential investor expectancy discrepancy in the future. Specifically, the high performing firm manipulation conveys a positive earnings trend while the low performing firm manipulation conveys a negative earnings trend. Participants were then asked to indicate their individual investor confidence and willingness to invest, and also evaluate managements' reporting credibility.

During the next stage of the experiment, participants received the current quarter human capital disclosure manipulation and the attestation manipulation at one of four levels: strong human capital disclosures with an attestation report, strong human capital disclosures without an attestation report, baseline human capital disclosures with an attestation report, or baseline human capital disclosures without an attestation report.[9] Participants in the strong disclosure group were provided voluntary disclosure data indicating a *positive* trend in human capital metrics, including employee satisfaction, employee turnover, training expenses per employee, and revenue per employee. Participants in the baseline disclosure group were provided voluntary disclosure data portraying a *static* trend in the same human capital metrics.[10] Upon review of all experimental materials, participants were once again asked to indicate their individual investor confidence and willingness to invest, and to evaluate managements' reporting credibility. In the final stages of the experimental instrument, participants indicated the likelihood they would rely on subsequent earnings announcements to form future earnings forecasts, followed by comprehension, manipulation check, and demographic questions.

3.3 Dependent Variables

The primary dependent variable is the change in the participants' perceived credibility of management's reporting. Credibility is measured following Mercer (2005), which is adapted from McCroskey (1966) and Leathers (1992). The credibility construct is comprised of management's

[8] The experimental materials went through one round of pretesting and two rounds of pilot testing. The instrument was pretested with 13 accounting PhD students and accounting academics at a major mid-Atlantic university to ensure the task was realistic, the instructions were clear, and both the GAAP and non-GAAP figures imbedded in the case were consistent and reasonable. The instrument was also piloted in two separate rounds, using approximately 30 experienced investors in each pilot. The final experimental sample does not include observations from the pilot tests.

[9] For external validity purposes, the manipulation of human capital disclosure type and presence of auditor attestation report were conducted at the same time. Consistent with CSR disclosures, if firm management requests an auditor attestation report for the non-GAAP data, it is customarily bundled with the disclosure data when delivered to stakeholders.

[10] 2012 industry averages, provided by the National Society of Human Resource Management, served as benchmarks for the noted human capital metrics.

perceived competence and perceived trustworthiness in financial reporting. Each sub-construct is then measured by three previously validated questions from Mercer (2005). [11] A credibility composite score is formed by summing the participants' responses to individual questions. A final change in credibility number is then calculated, using the difference between the first and second assessments of credibility, for the primary dependent variable.

Following Mercer (2004), additional measures of management's reporting credibility are assessed to provide additional insight into the economic significance of credibility revisions. Indirect measures of management's reporting credibility are calculated using firm stock price assessments. Participants received the stock trading price of the experimental company directly prior to the quarterly earnings announcement and the participants provided a revised stock price at two separate times following the experimental manipulations (similar to Brown-Liburd et al. 2012). The magnitude of the stock price revisions serve as a second dependent variable, corroborating that the observed changes in credibility from the manipulations have an effect on the assessed value of the company's stock.

The experimental materials also examine whether changes in perceived credibility of management's reporting affect the participants' willingness to rely on future financial disclosures and reporting provided by management. This additional assessment is performed because previous research suggests investors are more likely to rely on information provided by managers who are perceived to be highly credible (Williams 1999). Finally, participants' cognitive and affective reactions to the experimental manipulations are assessed through specific questions imbedded in the case materials. While no specific hypotheses are generated for cognitive and affective reactions, the supplemental analyses performed in subsequent sections enrich the findings for the predicted hypotheses and also generate questions for future research.

IV. DATA ANALYSIS

4.1 Hypothesis 1 – Human Capital Disclosure & Attestation - Credibility Assessments

Hypothesis 1 examines the effects human capital disclosure and auditor attestation have on investors' perceptions of managements' reporting credibility. Specifically, Hypothesis 1 predicts management's reporting credibility will be highest when investors are provided strong human capital disclosures with an auditor attestation report. Table 2, Panel B presents the ANOVA analysis and Figure 2 graphically displays the results, respectively. The reported ANOVA results are robust to non-tabulated nonparametric tests.

Participants assessed reporting credibility before and after receiving the experimental manipulations, and the change in the assessments serves as the primary dependent variable. Table 2, Panel A presents the mean credibility revisions, standard deviations, and cell sizes for each of the treatment groups. Independent sample t-tests (not shown) indicate a significant difference in the mean management credibility revision ($p < .0001$). The ANOVA shows a significant main effect for Human Capital & Attestation ($F = 12.67$, one-tailed $p < .0001$). Therefore, these results, using this measure of reporting credibility, support Hypothesis 1. Specifically, investors rate

[11] For purposes of this research paper, the reliability of the sub-constructs is reassessed to ensure questions consistently measured a common construct. The sub-constructs in the study yield a Cronbach's alpha of .87.

management's reporting credibility higher when provided stronger human capital disclosures and auditor attestation. These results are consistent with Mercer (2005), and suggest more positive human capital disclosure leads to higher perceived credibility. Furthermore, the results complement the non-financial data and credibility research of Simnett et al. (2009). These findings also bolster research by Healy and Palepu (2001) and Diamond and
Verrecchia (1991), indicating voluntary human capital disclosures can increase information intermediation and investor confidence, respectively.

4.2 Hypothesis 2 – Human Capital Disclosure & Attestation – Firm Value Assessments

In order to assess whether investors perceived human capital disclosures and auditor attestation as informative regarding firm value, and to support Hypothesis 2, participants' stock price revisions were used as an alternate dependent variable. Price revision is often considered to be an indirect measure of reporting credibility (Mercer 2004), and could allow for inferences about the potential economic significance of the results. Hypothesis 2 specifically predicts firms providing strong voluntary human capital disclosures and auditor attestation will have the highest stock price assessments. Tables 3, Panel B presents the ANOVA analysis and Figure 3 graphically displays the results, respectively. The reported ANOVA results are robust to non-tabulated nonparametric tests.

Participants provided stock price assessments of the company in the experimental case materials before and after receiving the experimental manipulations. Table 3, Panel A presents the mean stock price revisions, standard deviations, and cell sizes for each of the treatment groups. Independent sample t-tests (not shown) indicate a significant difference in the mean stock price revision ($p < .0001$). The ANOVA shows a significant main effect for Human Capital & Attestation ($F = 5.88$, one-tailed $p = .0007$). Therefore, these results support Hypothesis 2. Collectively, the results suggest firms providing strong voluntary human capital disclosures with an attestation report will have higher stock price assessments than firms not providing such disclosures or reports. These results extend the archival work of Pantzalis and Park (2009), who find investment portfolios with strong human capital skills systematically outperform portfolios with weak human capital skills. Furthermore, these results suggest more comprehensive positive disclosures are strongly associated with positive stock price effects (Botosan 1997; Miller 2002), and firms that expand disclosures are likely to have higher stock price associations compared to firms that do not expand disclosures (Gelb and Zarowin 2002).

4.3 Research Question 1 – Interactive Effects of Human Capital Disclosure & Attestation

Research Question 1 is designed to investigate the possible interactive effect of firm financial performance and human capital disclosures / auditor attestation on perceived reporting credibility and investor stock price revisions. The ANOVA results with credibility revision as the dependent variable are provided in Table 2, Panel B. Analyses do not show a significant interaction between Financial Performance and Human Capital & Attestation ($F = 1.60$, two-tailed $p = .1908$). However, contrasts (not shown) indicate a significant difference in the means of credibility revisions across the human capital disclosure treatments ($F = 8.73$, two-tailed $p = .0040$). The results of the contrasts are consistent with the interpretation that effects of human capital disclosure are dependent on firm performance. These results specifically suggest that when firms are

performing strong financially, management credibility can be augmented by voluntary human capital disclosures, especially positive voluntary human capital disclosures above industry average. However, if firms are performing weak financially, management credibility may not be attenuated by voluntary human capital disclosures and can actually be diminished with baseline, industry average human capital disclosures. Furthermore, these findings signal that in times of weak financial performance, investors are likely to hinge credibility assessments on primary firm information contained within the core GAAP financial statements rather than voluntary non-GAAP disclosures. Separate tests of contrasts (not shown) reveal a significant difference in credibility revision comparing disclosures with auditor attestation and disclosures without auditor attestation ($F = 3.99$, two-tailed $p = .0437$). These results suggest the presence of an auditor attestation report can boost perceptions of management credibility when accompanying human capital disclosures, but these results are more pronounced for firms with strong financial performance. The interactive effects of firm financial performance and human capital disclosures with/without auditor attestation can be seen graphically in Figure 2.[12] The reported ANOVA results are robust to non-tabulated nonparametric tests.

The ANOVA results with stock price revision as the dependent variable are provided in Table 3, Panel B. Analyses show a marginally significant interaction between Financial Performance and Human Capital & Attestation ($F = 2.12$, two-tailed $p = .0995$). Contrasts (not shown) indicate a significant difference in the means of stock price revisions between the human capital disclosure treatments ($F = 8.71$, two-tailed $p < .0001$). Consistent with management credibility revisions, the results of the contrasts suggest that effects of human capital disclosure are dependent on firm performance. These results specifically suggest that when firms are performing strong financially, firm stock price associations can be augmented by voluntary human capital disclosures, especially positive voluntary human capital disclosures above industry average. However, if firms are performing weak financially, firm stock price associations may not be significantly attenuated by voluntary human capital disclosures, and can actually be diminished with baseline, industry average human capital disclosures. Consistent with credibility revisions, these findings signal that in times of weak financial performance, investors are more likely to hinge stock price assessments on primary financial information contained within the core GAAP statements rather than voluntary non-GAAP disclosures. Additional tests of contrasts (not shown) also reveal a significant difference in stock price revision comparing disclosures with auditor attestation and disclosures without auditor attestation ($F = 4.86$, two-tailed $p = .0287$). Similar to reporting credibility, these results suggest the presence of an auditor attestation report can boost investor stock price assessments when accompanying human capital disclosures. These results are pronounced for firms with both strong and weak firm financial performance. The interactive effects of firm financial performance and human capital disclosures with/without auditor attestation can be seen graphically in Figure 3.[13] The reported ANOVA results are robust to non-tabulated nonparametric tests.

[12] *a priori* predictions were not made for the effect of firm financial performance on perceived management credibility revisions, but Table 2, Panel B shows significant main effects, indicating investors perceive management as more credible if firm financial performance is strong rather than weak.

[13] *a priori* predictions were not made for the effect of firm financial performance on stock price revisions, but Table 3, Panel B shows significant main effects, indicating investors make higher stock price associations if firm financial performance is strong rather than weak.

4.4 Cognitive Reactions

As an initial proxy of the amount of attribution processing, the amount of time spent completing the materials is measured for participants across all primary manipulations. Using independent sample t-tests, I find no significant difference in time spent between the firm financial performance conditions (strong financial performance μ = 16.04 minutes; weak financial performance μ = 16.35 minutes). I also find no statistically significant difference in time spent between the human capital disclosure conditions (strong human capital disclosure μ = 17.38 minutes; baseline human capital disclosure μ = 14.92 minutes). As participants across both the firm financial performance manipulation and human capital disclosure manipulation received the same amount of case materials, the absence of statistically significant results is not altogether surprising. However, the means described above do indicate a difference of over two minutes in attribution processing for participants receiving the strong human capital disclosure condition compared to the baseline human capital disclosure condition. This difference can suggest investors continue to process and integrate positive disclosure news more than negative (baseline) disclosure news (Mercer 2004, 2005). Independent sample t-tests comparing time spent between the auditor attestation conditions reveal a marginally significant difference (auditor attestation μ = 18.19 minutes; no auditor attestation μ = 14.31 minutes, two-tailed p = .0908). These results provide evidence consistent with case participants adequately acknowledging and processing the auditor attestation manipulation.

To investigate another proxy for attribution processing, participants across all manipulations were asked how intensely they considered each of the four human capital disclosure metrics. Analyses indicate that both assessments of credibility and firm stock price assessments are dependent upon the interactive effects of firm financial performance and human capital disclosure type. Specific results indicate more statistically significant processing of human capital disclosures for three of the four human capital metrics provided in the strong firm financial performance conditions compared to the weak firm financial performance decision. Means and p-values are provided in Table 4, Panel A. Data continues to support the expectation that firm financial performance influences the amount of attribution processing (Mercer 2005),
and in relation to human capital disclosures it is positive, not negative, news information with more bearing on attribution.

Within the case materials, participants were also asked their intent to buy or sell stock in the experimental company on a 9-point Likert scale (9 = Strong Buy; 1 = Strong Sell). By splitting investor buy decisions (6 and above) and investor sell decisions (5 and below), I find investors in the buy condition consider all four of the human capital metrics more intensely than investors in the sell decision.[14] Means and p-values are provided in Table 4, Panel B.

Finally, Table 4, Panel C presents specific results comparing overall intensity scores for each human capital metric contrasted with every other metric. Means of the contrasts indicate investors considered employee satisfaction percentage and revenue per employee more intensely than employee turnover and training expenses per employee. No significant difference is found in intensity between the employee satisfaction metric and the revenue per employee metric. Interestingly, the employee satisfaction percentage is a unique human capital metric (HCMI 2012),

[14] Results are robust if investor intent to buy or sell is split into investor buy (5 and above) and investor sell (4 and below).

while the revenue per employee metric is a fairly common financial, albeit non-GAAP, metric. The intensity scores in Table 4, Panel C suggest investors cognitively process non-GAAP human capital disclosures along with standard GAAP financial information if such information is provided, especially during periods of strong financial performance.

4.5 Affective Reactions

Additional analysis examines participants' affective responses to the firm financial performance manipulation and the voluntary human capital disclosure manipulation. Mercer (2005) predicts that although cognitive reactions determine investors' short-term credibility assessments, longer-term credibility assessments are determined by overall affective reactions. Furthermore, these overall affective reactions are determined by the stronger of affect related to financial performance or affect related to disclosures.

To test related affect-based effects using the experimental case, participants were asked to provide assessments of their affect related to both firm financial performance and management's voluntary human capital disclosure decision. Specifically, participants were asked their level of surprise related to the manipulations, their intensity of thought related to the manipulations, if the manipulations made them feel good, and if the manipulations made them feel bad. Immediately after experiencing the experimental manipulations, participants provided these assessments on comparable 9-point Likert scales, where high numbers reflected strong positive affect and low numbers reflected strong negative affect (the last question was reverse coded). The strength of affect related to firm financial performance is calculated as the absolute value of the difference between the participant's response and the scale midpoint for each question. The strength of affect related to the voluntary human capital disclosure is calculated in the same manner. Following Mercer (2005), the relative strength of participants' affective responses is then calculated by subtracting the strength of voluntary human capital disclosure decision affect from the strength of firm financial performance affect.

In relation to firm financial performance surprise and voluntary human capital disclosure surprise, the mean non-tabulated relative affect is negative ($\mu = -0.2513$) and significantly different than zero (t-value = -2.32, p = 0.0089). These results indicate participants were more "surprised" by the presence of the human capital disclosure in the experimental company's financial statement package than by the firm financial performance (strong or weak). In relation to whether the manipulations caused participants to feel good/bad, the relative non-tabulated affect is positive ($\mu = .2251$) and significantly different than zero (t-value = 2.11, p = 0.0358). Consistent with the findings of Kasznik and Lev (1995) and Mercer (2005), good/bad affective responses to firm financial performance are stronger than affective responses to disclosure decisions. As applied to specific case materials in this research, this effect can partially be attributed to the fact that neither human capital disclosure had real "weak" metrics. Firms are not likely to voluntary disclose bad news metrics. Therefore, the voluntary human capital disclosures in the experimental materials were assessed as either strong or baseline (compared to industry averages). No significant affect differences were found in relation to thought intensity between the two manipulations.

4.6 Reliance on Subsequent Disclosure

Credibility revisions can affect investors' willingness to rely on earnings announcements when forming future earnings forecasts, especially when earnings forecasts are positive (Mercer 2005). Participants were asked to express their likelihood to rely on a positive earnings forecast (on a 9-point Likert scale) in the subsequent quarter after the quarter of the experimental case. This analysis provides additional insights into the economic significance of credibility revisions. ANOVA analysis (not shown) indicates no significant main effects or interactive effects with the exception of the Firm Performance main effect ($F = 10.00$, two-tailed $p = .0018$). Independent sample t-tests (not shown) indicate participants are more likely to rely on positive news subsequent disclosures after a period of strong financial performance rather than after a period of weak financial performance (t-value = 3.23, two-tailed $p = .0015$) with means of 6.5213 and 5.6907 on a 9-point Likert scale, respectively. These results suggest investors enter a period after weak financial performance with a certain level of skepticism about future positive earnings, regardless of prior human capital disclosures. The ANOVA results are robust to non-tabulated nonparametric tests.

4.7 Mediation Analysis, Covariates, and Perception of Company Attributes

Within the experimental materials, participants were asked on separate occasions to rate their perceptions of management credibility and then indicate their stock price assessments. The credibility ratings were taken prior to the stock price assessments on both occasions. A separate analysis was performed to consider whether the rating of firm credibility mediates the relationship between the independent experimental conditions and stock price assessments following Baron and Kenny (1986). The final results of the meditation analysis suggest credibility ratings do not mediate the relationship between the independent variables and stock price assessments.

In non-tabulated covariate analyses, there is not a significant difference (all $p > 0.10$) between experimental cells for any of the demographic factors measured in Table 1, Panel B. These findings provide evidence that the work experience, investment experience, and other demographics of the final experimental pool are consistent across all groups.

As participants recorded their second assessments of reporting credibility and stock price assessments, they were also asked a series of questions related to attributes of the experimental company in the case materials. These attributes include cost of capital, earnings predictability, information asymmetry, human capital, and transparency. No significant difference was found (all $p > 0.10$) between experimental cells for any company attributes. These findings provide evidence that perceptions of experimental company attributes are consistent across all groups.

V. CONTRIBUTIONS, LIMITATIONS, AND FUTURE RESEARCH

5.1 Contributions

This paper makes three distinct contributions to extant literature. First, it brings an alternative measure of human capital valuation to the forefront of accounting literature. Although

not a required component in traditional financial statements under either GAAP or IFRS, many companies heavily rely on human capital to compete. Consequently, it is reasonable to expect human capital information to provide a signal to investors regarding firm value. This research finds that when presented with human capital metrics, investors' assessments of credibility and firm stock price are attenuated by human capital disclosures, especially during periods of strong financial performance. Results also suggest investors key in on both non-financial human capital metrics, such as employee satisfaction, as well as financial human capital metrics, such as revenue per employee. Based on cognitive processing time, analyses indicate investors spend more time processing strong human capital disclosures than baseline (i.e. industry average) human capital disclosures.

Second, this paper examines the impact of auditor attestation procedures on voluntary disclosures. Corporate and public interest in voluntary reporting continues to grow, and companies now routinely request a level of assurance on their supplemental reports. This research evaluates shareholder responses to attestation documentation surrounding voluntary disclosure in order to identify if such documentation truly provides incremental shareholder value. Results suggest investors do cognitively acknowledge the presence of auditor attestation reports when they are presented, and both credibility and firm stock price assessments are impacted by such reports. The degree to which investors value and rely on attestation reports are important grounds for future research.

Finally, this paper supplements existing research regarding accounting information transparency and disclosure. Political economy theory posits disclosure in accounting reports highlights firm activities in the private interests of the firm. It follows that a firm with positive human capital metrics should take advantage of human capital disclosures as a suitable and germane way to reduce the cost of raising financial capital. In an experimental setting, results indicate that investors do cognitively process human capital, non-GAAP, disclosures when they are presented, especially under strong firm financial performance conditions. Analyses also indicate investors have positive affective reactions to human capital disclosures. Considering all analyses and results, it appears the demand for more information, including non-GAAP information, by external financial statements users is not superficial.

Overall, the research proposed here provides new insights into the importance and usefulness of human capital information as viewed by investors. While current reporting standards focus on financial assets, physical assets, and technological/intellectual property, very little is considered relative to human capital. This lends to significant transparency and assurance issues when publicly traded firms fail to adequately disclose human capital issues and risks. With little to no human capital transparency, investors are implicitly forced to rely on alternative sources such as historical financial performance and management's voluntary discussion of the business. Some organizations undoubtedly have substantial unreported human capital benefits and risks, which can have a potentially significant market valuation impact. The research conducted in this paper illuminates the potential benefits of human capital disclosures and the incremental information that can be provided to stakeholders of the firm.

5.2 Limitations

This study may suffer from some limitations due to choices made in the experimental design. First, an experiment in general suffers from threats to external validity, as it may not completely replicate what may happen in a real setting. However, care was taken in this paper to ensure the experimental materials replicated actual financial statements disclosures, and were consistent with previously published work (Mercer 2005). Second, the behavior of the participants in this study may not be representative of all shareholder investors. As with any experiment, the use of a small sample of participants may be a threat to the external validity of a study. Participants came from a range of professional work experience and investment experience. However, participant demographics were predominantly comparable to similar studies using investors in an experimental setting (Mercer 2004; Mercer 2005; Ozlanski 2013). Third, investors in this experimental setting were unable to request additional information, or ask clarifying questions, to aid them in their assessments. Consequently, some response data may be more participant guess than legit participant judgment and decision-making.

There may also be limitations related to the specific manipulation of human capital disclosures. First, the human capital manipulation was split between strong human capital disclosures (above industry average) and baseline human capital disclosures (approximately equal to industry average). As it is not common for firms to actively disclose negative news, the true strength and magnitude of strong or baseline disclosures are hard to evaluate. Second, calculation and construction of human capital disclosures can be complex in practice, as data is combined from both accounting information systems and human resource systems. A combination of human capital metrics incorporating satisfaction, retention, training, and performance factors were chosen, which according to HCMI (2012) are key to human capital management. The industry averages used as benchmarks in both disclosures were based on 2012 data provided by the National Society of Human Resource Management. The experimental instrument also went through one round of pretesting and two rounds of pilot testing to boost external validity regarding the human capital disclosures. Still, the instrument data may not generalize to all companies.

5.3 Future Research

Future research in this academic stream, using both archival and experimental methodologies, can focus on determining what specific human capital metrics, or combination of metrics, are of incremental benefit to stakeholders, and at what point is such disclosure information useful for decision-making. More analysis can be performed to specifically examine if and how investors integrate human capital, non-GAAP, disclosure information with traditional GAAP financial statements and disclosures.

The experimental design used in this paper did not allow for a thorough analysis of attestation reports on investor judgment and decision-making. Participants exposed to the auditor attestation letter in this study took significantly longer to complete the case materials, but based on when the manipulation was introduced it is difficult to disentangle all the individual effects of the attestation report. As the AICPA and the National Association of State Boards of Accountancy work to change the definition of "attest" in the Uniform Accountancy Act, and considering client needs have led to increased requests for CPAs to provide attestation procedures, stakeholder reactions to attestations will be a bountiful realm for future research.

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FIGURE 1

FLOWCHART OF EXPERIMENTAL PROCEDURES

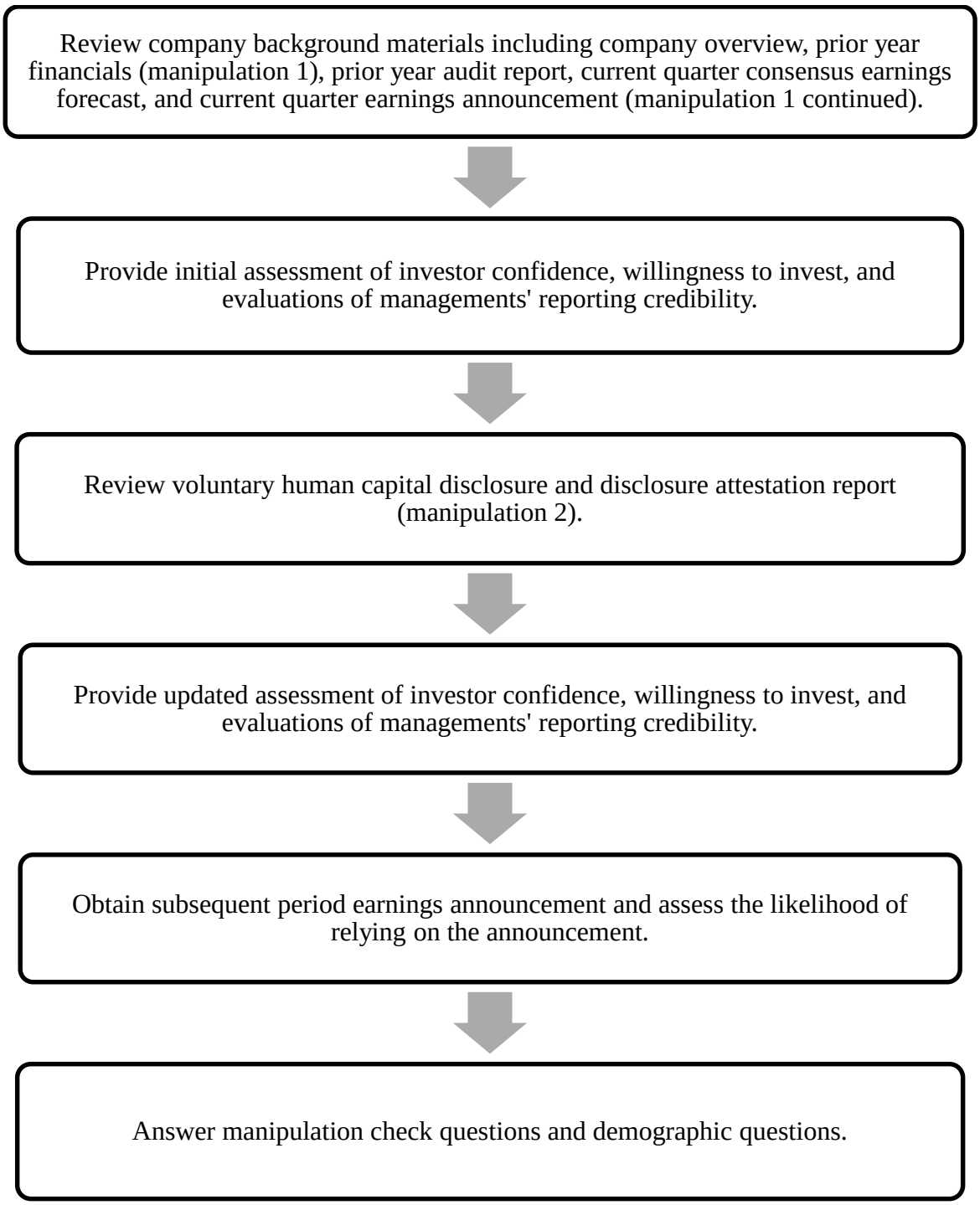

FIGURE 2

2 X 4 EFFECTS OF FIRM FINANCIAL PERFORMANCE AND HUMAN CAPITAL / ATTESTATION DISCLOSURE ON INVESTORS' PERCEPTIONS OF MANAGEMENT'S REPORTING CREDIBILITY

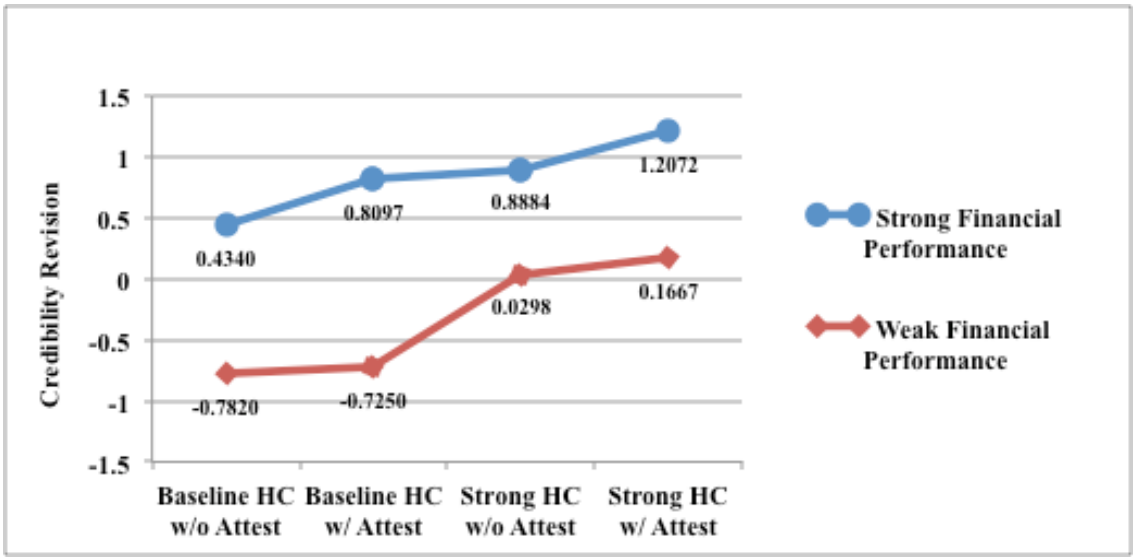

FIGURE 3

2 X 4 EFFECTS OF FIRM FINANCIAL PERFORMANCE AND HUMAN CAPITAL / ATTESTATION DISCLOSURE ON INVESTORS' FIRM STOCK PRICE ASSESSMENTS

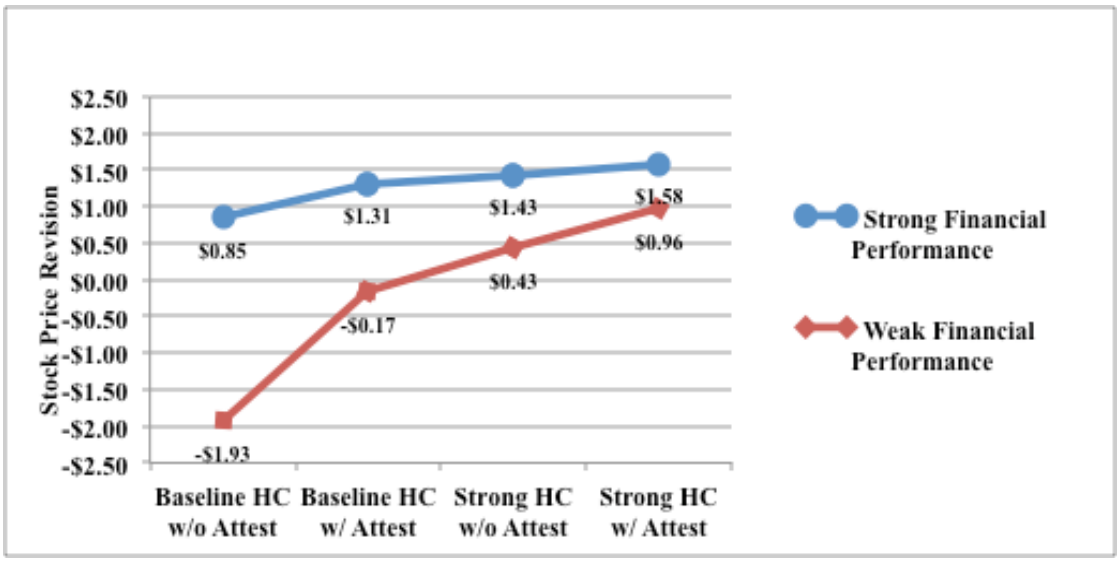

TABLE 1

EXPERIMENTAL SAMPLE SELECTION
AND PARTICIPANT DEMOGRAPHIC INFORMATION

Panel A: Experimental Sample Selection

Initial Qualtrics Sample	240
- Subtract Failed Manipulation Checks	(48)
- Subtract Improbable Demographic Information	(1)
= Final Experimental Sample (n =)	191

Panel B: Participant Demographic Information (n = 191)

Variables	Mean	Std. Dev.
Age	43.54	15.43
Work Experience (Years)	19.91	14.37
Public Accounting Experience (Years)	2.86	1.02
Private Accounting Experience (Years)	12.69	1.46
Trading Experience (Years)	11.58	11.52
Number of Buy/Sell Transactions per Year	91.87	744.75
Percentage of Portfolio Actively Traded	49.15%	30.66
Percentage of Sample with Software Stock in Portfolio	62.30%	
Percentage of Portfolio Containing Software Stock	37.37%	29.51
Number of Financial Statements Analyzed within Last Year	8.47	13.98
Percentage of Time Audit Report is Read	67.01%	
Percentage of Time Disclosures are Read	73.30%	
Male / Female Participants	52.88% / 47.12%	
CPA / Non-CPA	20.42% / 79.58%	
Trade for Work / Do Not Trade for Work	23.04% / 76.96%	

TABLE 2

CELL MEANS AND PARAMETRIC TESTS
WITH CREDIBILITY REVISION AS THE DEPENDENT VARIABLE
2 X 4 ANALYSIS

Panel A: Mean (Standard Deviation) Changes in Management's Reporting Credibility

Firm Financial Performance Manipulation	Human Capital / Attestation Manipulation			
	Baseline HC w/o Attestation	Baseline HC w/ Attestation	Strong HC w/o Attestation	Strong HC w/ Attestation
Strong Financial Performance	.4340 (.5977) n = 23	.8097 (.8620) n = 24	.8884 (.5618) n = 23	1.2072 (.6617) n = 24
Weak Financial Performance	-.7820 (.6555) n = 26	-.7250 (.8910) n = 19	.0298 (.9792) n = 26	.1667 (.8014) n = 26

Panel B: ANOVA Results

Source	DF	MSE	F-Stat	p-value	
Financial Performance	1	63.91	109.27	< .0001	(b)
Human Capital & Attestation	3	7.41	12.67	< .0001	(a)
Financial Performance X Human Capital & Attestation	3	0.94	1.60	0.1908	(b)

(a) one-tailed test, (b) two-tailed test

TABLE 3

CELL MEANS AND PARAMETRIC TESTS
WITH STOCK PRICE REVISION AS THE DEPENDENT VARIABLE
2 X 4 ANALYSIS

Panel A: Mean (Standard Deviation) Stock Price Revision

Firm Financial Performance Manipulation	Human Capital / Attestation Manipulation			
	Baseline HC w/o Attestation	Baseline HC w/ Attestation	Strong HC w/o Attestation	Strong HC w/ Attestation
Strong Financial Performance	.8491 (3.6198) n = 23	1.3121 (1.9383) n = 24	1.4274 (1.7504) n = 23	1.5758 (2.3437) n = 24
Weak Financial Performance	-1.9258 (2.7833) n = 26	-.1663 (1.8218) n = 19	.4277 (1.1397) n = 26	.9615 (1.8431) n = 26

Panel B: ANOVA Results

Source	DF	MSE	F-Stat	p-value	
Financial Performance	1	101.76	19.83	< .0001	(b)
Human Capital & Attestation	3	30.19	5.88	0.0007	(a)
Financial Performance X Human Capital & Attestation	3	10.87	2.12	0.0995	(b)

(a) one-tailed test, (b) two-tailed test

TABLE 4

Panel A

INTENSITY OF THOUGHT FOR SPECIFIC HUMAN CAPITAL METRICS UNDER DIFFERENT FIRM FINANCIAL PERFORMANCE CONDITIONS ($)

Human Capital Disclosure Metric	Mean Intensity Strong Firm Performance ($)	Mean Intensity Weak Firm Performance ($)	Difference in Intensity	t-value	p-value two-sided
Employee Satisfaction %	6.8710	6.4021	.4689	2.05	.0419
Employee Turnover %	6.6237	6.2165	.4072	1.57	.1175
Training Expenditures per Employee	6.6237	6.0825	.5412	2.36	.0194
Revenue per Employee	6.9355	6.3196	.6159	2.60	.0102

Panel B

INTENSITY OF THOUGHT FOR SPECIFIC HUMAN CAPITAL METRICS COMPARING PARTICIPANTS WITH INTENT TO BUY AND INTENT TO SELL

Human Capital Disclosure Metric	Mean Intensity Buy Position	Mean Intensity Sell Position	Difference in Intensity	t-value	p-value two-sided
Employee Satisfaction %	7.0678	5.9167	1.1511	5.16	< .0001
Employee Turnover %	6.7966	5.7917	1.0049	3.89	< .0001
Training Expenditures per Employee	6.8051	5.5972	1.2079	5.39	< .0001
Revenue per Employee	7.0932	5.8472	1.2460	5.38	< .0001

Panel C

INTENSITY OF THOUGHT FOR SPECIFIC HUMAN CAPITAL METRICS CONTRASTS COMPARING METRICS

Human Capital Disclosure Metric	Mean Intensity Position	Difference in Intensity	t-value	p-value two-sided
Employee Satisfaction %	6.6316	0.2158	2.03	.0433
Employee Turnover %	6.4158			
Employee Satisfaction %	6.6316	0.2842	2.84	.0051
Training Expenditures per Employee	6.3474			
Employee Satisfaction %	6.6316	0.0105	0.10	.9226
Revenue per Employee	6.6211			
Employee Turnover %	6.4158	0.0684	0.69	.4879
Training Expenditures per Employee	6.3474			
Employee Turnover %	6.4158	-0.2053	-1.89	.0607
Revenue per Employee	6.6211			
Training Expenditures per Employee	6.3474	-0.2737	-3.34	.0010
Revenue per Employee	6.6211			