The Impact of Human Rights Reporting and Presentation Formats on Non-Professional Investors’ Perceptions and Intentions to Invest

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Abstract: Compared to other types of sustainability information, it remains uncommon for companies to report human rights information, and critics argue that when companies do report, they often report opportunistically. This is problematic as non-professional investors may rely on this information when making investment decisions. In this study, we use an experiment to examine how non-professional investors react to human rights information presented in varying formats (i.e., numerical, graphs, qualitative) compared to no reporting. Consistent with our expectations, we find that when information is positive, participants do not react to qualitative information. However, they react positively to numerical and graphical information and seem to use a less critical mindset when processing this type of information, which is associated in the literature with an “aura” of accuracy, objectivity, and neutrality. This is problematic because, similar to what is often the case in reality, participants had no certainty about the accuracy of the information. Further, when information is less positive, participants do not react to numerical or graphical information, but they do react negatively to qualitative information, which is more vague and may be perceived as companies trying to obfuscate less positive performance. We offer a critical discussion of our results.

Keywords: human rights reporting; sustainability reporting; non-professional investors; presentation format

1. Introduction

Sustainability reporting has grown dramatically over the past several years and is increasingly becoming standard practice for companies across the world [1–6]. However, while addressing human rights issues (e.g., related to employee safety) may become even more relevant in light of the COVID-19 pandemic, reporting on human rights performance, initiatives, audits, or violations as part of sustainability reports remains less common for companies. A large study of sustainability reporting practices recently identified human rights as one of the greatest areas of deficiency in current sustainability reporting [4]. Additionally, it is argued in the literature that companies should more explicitly incorporate human rights information in their sustainability reports [7–11].

Further, academic research that specifically addresses human rights reporting also has been argued to be in its infancy [7,8,10,11]. Whereas the growing academic literature on sustainability reporting has shown that sustainability reporting can potentially lead to important advantages for companies (advantages of sustainability reporting identified in the literature include overall lower cost of equity capital [3], higher market returns [12], higher firm value [13,14], lower incidents of discretionary accounting accruals, earnings management, and Securities and Exchange Commission investigations, and greater forecast accuracy for analysts [15]), few of these studies specifically provide empirical evidence on human rights reporting. An exception is McPhail and Adams [16], who performed a critical
discourse analysis of the human rights discourse of 30 listed companies in the chemical, mining, and pharmaceutical industries. While the case for human rights reporting has been made from a normative perspective [7–11], the question remains on what impact informing the public about human rights practices has for companies and for users of this information. In this study, we are specifically interested in how informative human rights information is to non-professional investors.

Tension exists as to whether and how this type of information may affect non-professional investors. While respecting human rights is typically considered part of companies’ sustainability practices [17], Bénabou and Tirole [18] (p. 2) defined sustainability and corporate social responsibility as follows: “… it is about sacrificing profits in the social interest. For there to be a sacrifice, the firm must go beyond its legal and contractual obligations, on a voluntary basis. CSR thereby embraces a wide range of behaviors, such as being employee-friendly, environment-friendly, mindful of ethics, respectful of communities where the firm’s plants are located, and even investor-friendly. Sometimes, the call for duty extends beyond the corporation’s immediate realm and includes supporting the arts, universities and other good causes.”), it is interesting and important to study the impact of human rights information separately because of the unique nature of human rights information. Whereas sustainability is widely considered as a voluntary engagement going beyond legal requirements, many argue that respecting human rights is not voluntary but a universal obligation [19–25]. On the one hand, as investors may consider the practice of reporting these universally required responsibilities as window dressing or impression management, they may react negatively to human rights reporting [26–30].

On the other hand, it could be argued that investors may value being informed about human rights and react strongly to this type of information. As sustainability information may lead to affective reactions due to its value-laden nature [31], these affective reactions may be particularly strong in response to human rights information, since human beings are particularly sensitive and empathic to states of others such as suffering [32–34].

Furthermore, we are interested in whether and to what extent non-professional investors’ reactions are impacted by the way the information is presented (i.e., graphical, numerical, or qualitative). We are motivated to explore this because it is argued in the literature that sustainability information in general, but also human rights information in particular, largely remains too qualitative in nature and that it would be desirable for companies to report more quantitative information, which is often considered as more accurate and objective [4,17,35,36]. However, it remains unclear how informative each of these types of human rights reporting is to non-professional investors. While the topic of presentation format has already been studied in a broader sustainability setting [37–41], we are the first to examine the specific impact of quantitative (i.e., numerical or graphical) and qualitative presentation formats in a human rights setting.

Moreover, this question touches upon a long-standing debate in the accounting literature. On the one hand, it is argued that by remaining too qualitative in their reporting of information, companies shed doubt on the credibility of the information and suggest that they may be selective in their reporting [36]. On the other hand, critical accounting scholars have criticized the dominating idea that quantified accounting data would be more accurate, objective, and neutral in nature [42]. Rather, they argue that it is important to recognize that numbers are always “produced”, based on underlying interests, and, as such, political in nature [42–46]. By examining how non-professional investors react to different types of human rights information, we are able to inform this debate with empirical evidence. By doing so, we also add to the extant literature on the impact of presentation formats.

Furthermore, in our study, we specifically focus on non-professional investors as this is a fast-growing and increasingly impactful group as “day trading” has become more popular and a wide variety of apps makes investing more accessible [47,48]. Additionally, non-professional investors investing in stocks such as GameStop and AMC were recently even able to significantly influence the market [49]. Furthermore, the focus on non-professional investors is
interesting as the literature shows that this type of investors is more prone to affective reactions than professional investors [50,51]. This effect, as indicated above, may be particularly strong in the context of human rights information because human beings are particularly sensitive and empathic to states of others such as suffering [32–34]. At the same time, as their risk tolerance is generally lower than the risk tolerance of professional investors, non-professional investors might be particularly vulnerable to misinformation [52]. This makes it even more important to learn how this type of investors is affected by corporate disclosures.

To address this study’s hypotheses, we use a $2 \times 3$ plus control experimental research design with Mechanical Turk participants. We use Amazon’s Mechanical Turk (M-Turk) via the TurkPrime.com platform to recruit online participants [53–56]. This type of participants is generally considered as appropriate proxies for non-professional investors [57–60]. In compliance with ethical standards: the authors obtained IRB approval from their host institution. Participants in all conditions, including participants in the control condition, receive the same financial information about our fictitious company. Participants in the treatment conditions subsequently receive human rights information reported by the fictitious company. Participants in the Positive condition receive human rights reports containing positive human rights information. Participants in the Less Positive condition receive reports containing less positive human rights information. We opt to manipulate the level of positivity variable as Positive versus Less Positive instead of Positive versus Negative. We believe this choice makes our manipulation more realistic and should bias against finding results. While human rights performance in our Less Positive condition is not explicitly negative, performance comes across as worse than what investors may expect. Further, we manipulate our presentation format variable by presenting human rights information in the reports either qualitatively (Qualitative condition), numerically (Numerical condition), or graphically (Graphs condition).

Results provide support for our expectation that positive human rights information will lead to positive reactions compared to no human rights information and that this is especially the case when a quantitative (i.e., numerical or graphical) presentation format is used. The effect of less positive information, however, is more ambiguous. While participants state that the company is less attractive as an investment and that they are less likely to invest in it, we find no significant effect on their perception of the company’s overall performance and on the actual investment variable. Further, instead of especially finding, as expected, a negative effect when less positive human rights information is presented using graphs or numerically compared to no human rights information but not when presented qualitatively, we actually find that non-professional investors do not react differently when information is reported using graphs or numerically than when human rights reporting is absent. In contrast, when less positive human rights information is presented qualitatively, we find more negative reactions than when the information is absent. We argue that participants may react in this way to qualitative information as they may feel that the company is intentionally presenting the information vaguely in order to obfuscate the less positive information.

Our results provide some interesting, but also potentially problematic, insights, specifically with regard to non-professional investors’ inclination to take quantitative and graphical information at face value. We provide a critical reflection on our results in the discussion. Overall, with this study, we add to the academic literature on sustainability and human rights reporting by focusing on the underexplored but vitally important practice of human rights reporting. In doing so, we not only extend the current knowledge about sustainability reporting in general [1–6], but we also broaden the current, mainly normative, literature on human rights reporting by providing empirical evidence on how non-professional investors react to this type of information [7,8,10,11]. In this way, we can inform the debate in the literature about whether human rights reporting should become more quantitative in nature [17,35]. In addition, we also contribute to the academic literature on presentation formats [37–41]. As such, our study is able to inform both practice and the academic literature.
2. Background Literature and Theoretical Development

2.1. The Importance of Human Rights for Business

Before formulating our hypotheses and theoretical expectations, we provide some background information about human rights and human rights reporting, and we explain why respecting human rights is a crucial responsibility in business. A universally accepted interpretation of human rights is provided in the Universal Declaration of Human Rights, which was proclaimed and adopted by the United Nations General Assembly in 1948 [25]. This declaration constitutes rights such as the right to life, freedom from torture, and freedom of thought. These rights are extremely relevant for business and for corporate organizations, as evidenced by the fact that some of the rights in this declaration are plain labor rights. Examples are the right to work, the abolition of child labor, freedom from slavery, the right to equality at work, the right to just and favorable remuneration, and the right to a safe work environment [25].

However, the relevance of the Universal Declaration of Human Rights for business does not stop at these labor rights but entails a wider spectrum of rights, including the right to health, the right to privacy, and the right to social security [25]. The latter also implies that respecting human rights does not only apply to employees of companies but to all stakeholders potentially affected by companies’ business activities. Specific violations of these rights due to business activities affecting a wider array of stakeholders comprise, for example, damage done to people’s health through pollution, environmental accidents, safety failures, forced or involuntary displacement of indigenous communities, and the depletion or contamination of water sources that local communities depend upon [4].

The pressure for companies to take human rights into account has increased dramatically in recent years. First, there is a growing web of guidelines, requirements, and standards, such as the UN Guiding Principles on Business and Human Rights [61], the OECD Guidelines for Multinational Enterprises [62], ISO 26,000 on Social Responsibility [63], and the International Labour Organization (ILO)-issued guidelines in the form of the Declaration on Fundamental Principles and Rights at Work [64]. Another important reason for companies to comply with these guidelines seems to be reputational concerns. Particularly, trying to optimize relationships with labor unions, employees, suppliers, investors, and lenders can result in better addressing human rights issues within the company [4]. Not taking up this human rights responsibility, in contrast, is argued to have devastating effects, with rising expectations worldwide [65].

2.2. Human Rights Reporting

Even though respecting human rights is a universally accepted responsibility, both the practice of human rights reporting as well as research on the impact of human rights reporting remain in their infancy [4,7–11]. Whereas the growing awareness of the importance of human rights reporting and the increased standardization have led to much progress already, additional research and empirical evidence would be able to inform and stimulate human rights reporting. The KPMG report [4] states, for example, that companies experience difficulties in reporting human rights performance of partners further away in the supply chain and that they have trouble assessing the outcomes of their human rights activities.

Moreover, critics argue that human rights indicators are lagging behind environmental indicators; companies that do report—because of the low accountability—often report opportunistically on their human rights issues, leaving out issues with the worst impact, and that they are selective in their consultation with stakeholders [8]. Positively, standards and frameworks on how to report on human rights practices are improving and may, in time, diminish these concerns. For example, guidance on how to report human rights information is given through the UN Guiding Principles Reporting Framework [66], a framework that resulted from the Human Rights Reporting and Assurance Frameworks Initiative. The European Union (EU) Directive on Disclosure of Non-Financial and Diversity Information [67] is another well-known framework to report human rights information.
One exception to the lack of empirical research on human rights reporting is McPhail and Adams [16], who performed a critical discourse analysis of the human rights discourse of 30 listed companies in the chemical, mining, and pharmaceutical industries. They found that companies are following the UN Guiding Principles’ recommendation of human rights due diligence, while engagement with the recommendation of access to remedy for violations is still deficient. Another recent paper that explores the impact of human rights reporting on companies is a study by Christensen, Floyd, Liu, and Maffett [68]. This study showed that the requirement itself to report on human rights could have an impact on business practices. More specifically, the authors found that the SEC requirement for mine operators to disclose information related to safety and health violations (Section 1503 of the Dodd-Frank Act) leads to lower mining-related citations and injuries. As an explanation for this effect, they argued that the disclosure requirement in itself leads to an increased awareness of safety issues.

2.3. The Difference between Human Rights Information and Other Sustainability Information

While research on the impact of human rights reporting remains limited, research on the impact of sustainability reports, in general, has been growing [1–6]. For example, research has identified several advantages of sustainability reporting, including the overall lower cost of equity capital [3,69]; higher market returns [12]; higher firm value [13,14]; lower incidents of discretionary accounting accruals, earnings management, and Securities and Exchange Commission investigations; and greater forecast accuracy for analysts [15].

However, it remains interesting and important to study the effects of human rights reporting independently, as one category within the broader range of sustainability categories, because this type of reporting remains deficient, compared to other types of sustainability reporting [4]. As such, more research can inform practice and academic research about this type of reporting. Further, human rights information has a unique nature compared to other sustainability information. A first important difference between human rights information and other types of sustainability information is that respecting human rights is widely considered to be a universal obligation and even legally required by most developed countries [20]. There are indeed strong ties between legal practice and human rights, whereas sustainability remains a voluntary managerial responsibility going beyond legal requirements [18–24,70].

A second interesting characteristic is that human rights information is more likely to generate affective reactions than other types of reporting. Specifically, these reactions may be particularly strong in the context of human rights information, as human rights information is value-laden and, since human beings are particularly sensitive to states of others such as suffering, especially likely to trigger empathy [31–34]. Furthermore, the literature shows that non-professional investors are more prone to this type of affective reactions than professional investors [50,51].

In what follows, we further explore how non-professional investors may react to human rights reporting, and we formulate our theoretical expectations.

2.4. The Effect of Human Rights Reporting on Non-Professional Investors’ Perceptions and Investment Decisions

While empirical research on the impact of human rights reporting remains generally lagging, a particular deficiency exists in examining the effect on the increasingly impactful group of non-professional investors. Our study addresses this gap in the literature. Currently, these types of retail investors are gaining more influence than ever before, as can be seen in the recent phenomena of increased investing during the pandemic and the influence of Reddit on investing in WallStreetBets and GameStop [48,49]. At the same time, as their risk tolerance is generally lower than the risk tolerance of professional investors, they might be particularly vulnerable when relying on information that may turn out to be inaccurate [52]. Therefore, we find it informative to focus on non-professional investors.
As indicated earlier, it remains unclear how non-professional investors will react to human rights reporting, regardless of whether the reported information is positive or less positive. On the one hand, when positive human rights information is provided, one could argue that, similar to sustainability information in general [3,15], this information will be informative to investors and that investors’ judgments and decisions will be affected by this information. On the other hand, while respecting human rights is considered to be a universally required responsibility and companies are required to respect human rights anyway [20–24], one could expect this information to be rather uninformative to investors. Moreover, when human rights information is very positive, investors could suspect window dressing and become skeptical about the company [26,28,29].

However, the literature shows that non-professional investors are more likely to be influenced by affective reactions than professional investors [30,51]. For this reason, as human rights information is especially likely to trigger affective reactions [31], we expect that non-professional investors will react to human rights information. Specifically, when positive human rights information is provided, we expect that non-professional investors will react positively to this information.

Next, we raise the question of how investors will react when human rights information is less positive. On the one hand, non-professional investors may react negatively when human rights performance turns out lower than expected or even problematic. On the other hand, it is not self-evident that investors will punish companies for disclosing their human rights performance. For example, the literature shows that when human rights problems do occur, companies are more likely to recover from a crisis when they report about the problems than when they try to cover up what happened [71]. However, similar to our reasoning above, as non-professional investors are particularly prone to affective reactions, we expect that they will react negatively under these circumstances. We formulate the following research hypotheses:

**Hypothesis (H1).** Positive human rights information will positively affect non-professional investors’ perceptions of companies and their likelihood of investing in companies compared to no human rights information.

**Hypothesis (H2).** Less positive human rights information will negatively affect non-professional investors’ perceptions of companies and their likelihood of investing in companies compared to no human rights information.

### 2.5. The Effect of Presentation Format on Non-Professionals’ Reactions to Human Rights Reporting

In addition, we are also interested in how non-professional investors react to different ways of reporting human rights information. To be specific, we are interested in whether investors react to human rights information in various formats; the intent of this study is not to compare whether investors react differently between various formats. We acknowledge that different presentation formats may be interpreted to have differing levels of information content available to the decision makers. The extant literature argues that sustainability and human rights reports remain too qualitative in nature and that it would be desirable for companies to provide more quantitative information, which is often considered as more accurate and objective [4,17,35,36]. Overall, there is indeed a common perception that more critical attention is required when companies report qualitative rather than quantitative information. For example, Adams and Frost [36] argued that by remaining too qualitative in their reporting of sustainability information, companies shed doubt on the credibility of the information and suggest that they may be selective in their reporting.

Overall, evidence exists that companies remain too opportunistic and selective in their sustainability and human rights reporting [8,17,36] and that companies may issue these reports for window dressing and impression management reasons [26–30,72–74]. At the same time, while qualitative information tends to be perceived as more selective [36], there is also evidence that graphs may be used by companies in their sustainability reports to
present a more favorable view of their performance [75]. However, given that accounting information, especially quantified information, typically has an aura of being neutral and independent [76], we raise the question of how users of human rights information will react to different ways of presenting human rights information. To examine this question, we make a distinction between qualitative and quantitative information, such as numerical information or information provided through graphs.

Recent academic research on presentation format focuses on areas such as balanced scorecards [77–79], pro forma earnings information [38,80,81], and risk management [82]. These studies examine the effect of presentation formats, and they mostly rely on theories related to cognitive load. Interestingly, many of these papers argue that information formats that are easier to process (e.g., graphs) especially make a difference for people with less experience or proficiency, such as non-professional investors. Experts, such as professional investors, are less likely to react to those manipulations [35,39,48]. Some studies provide some indications that quantitative (i.e., numerical or graphical) information may be taken more at face value. For example, Dilla and Janvrin [83] found that companies increase the use of graphs when their performance is positive but not when it is negative, for impression management reasons. Another study showed that quantitative information is more persuasive than qualitative information if the information is credible but less persuasive if the information is less credible (i.e., when preparers have incentives to misreport or to be selective in their reporting) [84]. An example of research on presentation format in domains other than accounting is in consumer research [85].

Interesting for our topic is that some studies have already examined the impact of presentation formats in a sustainability reporting setting. Specifically, Elliott et al. [39] studied the impact of highlighting pictures versus highlighting words in sustainability reporting on investor decisions. They argued that when pictures are highlighted, investors will adopt a low-level focus when interpreting the report and a high-level focus when words are highlighted. They found that when there is a fit between the adopted focus and the strategy frame used in the report (i.e., low-level focus fits with community strategy; high-level focus fits with global strategy), less numerate investors are more likely to invest in the company than more numerate investors and that the effect is driven by perceived processing fluency. Further, Arnold et al. [37] reported results of the comparison between the impact of CSR reports without pictures and CSR reports with a psychologically appealing picture on professional investors’ decisions, but they did not find any differences between these two conditions for any of their variables of interest. In their experiment, CSR information in both conditions was presented numerically.

Other studies are on the presentation format regarding presenting financial versus sustainability information. Reimsbach et al. [41] studied the impact of integrated reporting versus separate reporting of financial and sustainability information on professional investors’ reactions and found a strong difference between the two when no assurance is provided on the sustainability part, with integrated reporting being valued higher, but no difference when assurance is provided. Fehrenbacher and Soderstrom [40] compared the effect of presenting financial information prior to CSR information to presenting CSR information prior to financial information on investor and stakeholder decisions. Results show that investors who see the financial information first assess company performance higher than when they see the CSR information first or than stakeholders who see either information first. Overall, none of these studies on presentation format in sustainability settings examined the influence of qualitative information, numerical information, and graphs—the presentation formats we are interested in—at the same time, and none of these studies focused specifically on a human rights setting. To develop our expectations, we rely on cognitive load theory [86,87], which posits that people have limited cognitive processing capacity. Information that is relatively easy to process will require little cognitive load, while information that is relatively difficult to process will require much cognitive load, to the extent that the presented information may even be ignored or at least not taken into account. We build on this theory by arguing that human rights information
presented in a way that is relatively easy to process will require little cognitive load. As such, non-professional investors will be likely to take this information into account. As we argued before that non-professional investors will show affective reactions to human rights information, we expect them to react positively when this human rights information is positive but negatively when this information is less positive. However, when human rights information is difficult to process, we expect that this information will not be taken into account and that non-professional investors will not react to this information.

The extant literature shows that quantitative information is relatively easy to process [38, 80, 83]. Moreover, because of the inclusion of numbers or graphs, this information also comes across as relatively precise, clear, and objective, conveying the message unambiguously [42, 76]. As a result, we expect that non-professional investors will act upon the human rights information and react affectively, i.e., positively to positive information and negatively to less positive information. When human rights information is presented in a qualitative way, however, this requires relatively much cognitive capacity to process, as shown by the extant literature [38]. Moreover, in a human rights setting, presenting information qualitatively, i.e., without illustrating statements with numbers and being precise, the information may come across as selective and subjective [36]. This will increase the ambiguity of the information, which requires more cognitive capacity. Taking these characteristics into account, it will become even harder for non-professional investors to process this type of information. Consequently, we expect non-professional investors not to take this information into account, and we do not expect a difference when this type of information is present versus when it is not present. Therefore, we formulate our third and fourth hypotheses as follows, indicating a directional hypothesis for numerical and graphical presentation formats but a null hypothesis for qualitative presentation formats:

Hypothesis (H3a). Non-professional investors will react more positively to positive human rights information presented in a numerical way than when no human rights information is presented.

Hypothesis (H3b). Non-professional investors will react more positively to positive human rights information presented in a graphical way than when no human rights information is presented.

Hypothesis (H3c). Non-professional investors will not react differently to positive human rights information presented in a qualitative way than when no human rights information is presented. (null hypothesis)

Hypothesis (H4a). Non-professional investors will react more negatively to less positive human rights information presented in a numerical way than when no human rights information is presented.

Hypothesis (H4b). Non-professional investors will react more negatively to less positive human rights information presented in a graphical way than when no human rights information is presented.

Hypothesis (H4c). Non-professional investors will not react differently to less positive human rights information presented in a qualitative way than when no human rights information is presented. (null hypothesis)

3. Research Methodology
3.1. Design

We use a 2×3 plus control experimental research design to address our research questions related to the impact of human rights reporting on non-professional investors’ perceptions and investing decisions. All conditions, including the control condition, received the same set of financial statements, including a balance sheet, an income statement, and a statement of cash flows. The treatment conditions subsequently received human rights information reported by the company. The human rights report of the fictitious ABC Company included human rights measures such as the percentage of plants (per continent)
where a human rights audit had taken place, the number of sensitivity training sessions pro-
vided within the company, and the number of human rights violations that had occurred.
While the company used in the experimental materials is fictitious, we developed this
information by following guidelines provided by Shift [88] and by examining high-quality
voluntary human rights reports of existing companies.

Following the advice of Kadous and Zhou [89], we designed our experimental instrument
with an appropriate level of relevant task complexity. As they noted, mundane realism
can be distracting to participants, and the goal of designing an instrument should
allow for enough context and structure (1) for theory to be tested and (2) to allow partic-
ipants to engage in a realistic decision process. Similar to prior literature that examines
non-professional investor behavior [57,79,90–92], we designed our instrument with enough
context to allow participants to make an informed decision while keeping it relatively
generic so that our results could extrapolate to other situations, increasing external validity.
For our experimental instrument, we chose to have a fictitious company in a relatively
neutral industry, the international beverage industry (ABC Company). This choice was
made so that participants would be less likely to bring in preconceived beliefs about the
industry and their human rights activities.

The treatment conditions varied in the following ways. First, the information presented
in the human rights reports varied in level of positivity. The level of positivity within the
reports was manipulated as (1) Positive or (2) Less Positive. For example, while the human
rights report in the Positive condition presents an increase in the number of sensitivity
training sessions year after year, the Less Positive condition presents a decline for the current
year compared to the number of sensitivity training sessions in the past. Since sensitivity for
human rights is not a skill that one learns within one training but a mindset that repeatedly
needs to be trained, a decline in the number of sensitivity trainings should indeed be
considered as less positive. Second, to examine whether the presentation format of human
rights reporting influences the impact of human rights information on non-professional
investors, we manipulated the presentation format of the human rights information. The
presentation used either (1) numerical descriptions of the human rights information where
outcomes for each of the human rights metrics were presented numerically, (2) qualitative
descriptions, or (3) graphs to present the human rights information. In the Numerical
condition, outcomes for the different human rights metrics were presented numerically. In
the Qualitative condition, rather than numerically presenting the information, the direction
of how performance on the different performance metrics was evolving was presented. In
the Graphs condition, outcomes for the human rights metrics were presented in graphical
depictions. We refer to Appendix A for examples of our treatment conditions.

3.2. Participants

To obtain an appropriate sample of non-professional investors (i.e., the type of in-
vestors we focus on in this study), we used Amazon’s Mechanical Turk (M-Turk) via the
TurkPrime.com (last accessed February 16, 2022) platform, which is a popular platform
to recruit online participants for research studies [53–56]. M-Turk participants have been
found to be appropriate proxies for non-professional investors [93,94] and, consequently,
are increasingly used in accounting studies [57–60]. We recruited participants from within
the United States who had an approval rate of at least 95% and are at least 18 years old.

Our final sample includes 505 participants. Our initial sample consisted of 559 par-
ticipants. To be consistent with prior literature [58] and increase our data integrity, fifteen
participants were omitted from the analyses due to taking an unusually low amount of time.
On average, our participants were 36 years old, and 45.5% of our participants were female.
We paid each participant USD 1.00 for completing the experiment. On average, participants
completed the study in 6 min. Approximately 60.2% of the participants indicate experience
with investing. Participants with experience in investing indicate an average of 5.81 years of
investing experience, and 54% of the participants indicate having experience with investing
in individual stocks, while 74.9% indicate they anticipate investing in individual stocks.
in the future. Almost all (99.8%) of the participants indicate having a high school degree, and 48.9% indicate having a four-year degree or higher. Beyond working for Amazon M-Turk, approximately 72.1% of our participants indicate that they are employed full-time, and 10.9% are employed part-time. Statistical analysis suggests that randomization was successful in that there are no significant differences in the demographic questions or control variables between treatment conditions (all p’s > 0.10).

3.3. Procedures

The procedures of our experiment were as follows. First, participants were informed that this questionnaire is part of a study to learn more about investor decision making. They were asked to assume the role of an investor and were presented with a situation many investors face. Participants were asked to imagine themselves in the same exact situation as the investor being described and to respond to the questions as if they were the investor in the case. Next, participants were presented with a set of financial statements (balance sheet, income statement, and statement of cash flows) for ABC Company. The financial statements were held constant between all conditions, and none of the participants knew at that time that they might receive other information about the company at a later stage in the experiment. At that point, participants were asked to “evaluate ABC Company’s financial performance” on an eleven-point Likert scale. As anticipated, there is no difference between our different conditions on this measure (F_{498} = 0.824; p = 0.552).

Participants in the treatment conditions were subsequently presented with a report on the company’s human rights activities. Depending on the exact treatment condition they were assigned (as explained above), participants received human rights information about the company that was either positive or less positive, and the human rights information was either presented numerically, qualitatively, or in graphs. Importantly, while participants knew that the financial statements were audited, we did not mention anything about the accuracy of the human rights information, nor did we say anything about whether or not assurance of the human rights information had taken place. Next, all participants had to answer some questions that measured our dependent variables, and all had to complete the post-experimental questionnaire, including manipulation checks and demographic questions.

Our dependent variables of interest are non-professional investors’ perceptions of the company and their investment decisions. We measure investors’ perceptions of the company by asking participants to answer the following three questions on eleven-point Likert scales: (1) Evaluate the overall performance of the company (Overall Performance), (2) How attractive is ABC Company as a potential investment? (Attractiveness), (3) What is the likelihood you would consider ABC Company as a potential investment? (Likelihood). Even though we ask participants about their likelihood of investing in the company to measure the variable Likelihood, this variable reflects participants’ perceptions about the company rather than their actual investment decision. Participants’ investment decision is measured by letting them make an actual investment decision. The academic literature has shown that people’s actual decisions (i.e., their actions) do not necessarily correspond to their perceptions and opinions (i.e., how they evaluate information) [95]. For this reason, it is interesting to examine nonprofessional investors’ perceptions of the company and investment decisions separately. Participants’ intentions to invest were measured with the question “Assume you have $10,000 to invest in the food and beverage industry. How much of this $10,000 will you invest in ABC stock?” (Investment). Their answer to the third question could range from zero to 10,000.

4. Results

4.1. Manipulation Checks

In this study, we have six treatment conditions and one control condition. We vary the level of positivity within the report, and we vary the presentation format between the treatment conditions. To assess whether our manipulation of Positive versus Less Positive succeeded, we included a series of manipulation checks. More specifically, participants had
to assess the following statements on eleven-point Likert scales: (1) I find ABC Company’s corporate social responsibility (CSR) report to be favorable; (2) I am happy with ABC Company’s CSR performance; (3) I am upset with ABC Company’s CSR performance; (4) I am pleased with ABC Company’s CSR performance. Confirmatory factor analysis suggests that these four variables all load on a single factor (eigenvalue = 3.55) and 88.85% of the variance between these four items is explained by this factor. Therefore, this suggests that the four items measure the same construct as intended. Independent sample t-test reported in Table 1 shows that there is a significant difference between the Positive and Less Positive treatment conditions, and this pattern exists whether looking at the overall means or breaking the means out by presentation format. In addition, independent sample t-test shows that twenty-seven of the thirty-two means are significantly different from the neutral midpoint of the scale (6) indicating that the positive human rights reports influenced participants to view the reports favorably and that they were happy, pleased, and not upset with the reports. In the less positive groups, the means indicate the participants do not agree that they view the reports favorably and that they were happy, pleased, and not upset with the reports.

### Table 1. Manipulation check means.

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Variable</th>
<th>Mean Positive</th>
<th>Mean Less Positive</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>Less Positive</td>
<td>Favorable</td>
<td>9.15 *</td>
<td>5.36 *</td>
<td>16.129</td>
<td>436</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Overall</td>
<td>Overall</td>
<td>Happy</td>
<td>8.86 *</td>
<td>5.10 *</td>
<td>15.904</td>
<td>436</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Upset</td>
<td>2.80 *</td>
<td>6.51 *</td>
<td>13.813</td>
<td>436</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pleased</td>
<td>8.69 *</td>
<td>4.93 *</td>
<td>15.311</td>
<td>436</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Positive</td>
<td>Less Positive</td>
<td>Favorable</td>
<td>9.44 *</td>
<td>5.53</td>
<td>10.829</td>
<td>147</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Numerical</td>
<td>Numerical</td>
<td>Happy</td>
<td>9.08 *</td>
<td>5.23 *</td>
<td>10.133</td>
<td>147</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Upset</td>
<td>2.89 *</td>
<td>6.68 *</td>
<td>8.336</td>
<td>147</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pleased</td>
<td>8.99 *</td>
<td>5.12 *</td>
<td>9.793</td>
<td>147</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Positive</td>
<td>Less Positive</td>
<td>Favorable</td>
<td>8.88 *</td>
<td>4.57 *</td>
<td>9.883</td>
<td>144</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Qualitative</td>
<td>Qualitative</td>
<td>Happy</td>
<td>8.49 *</td>
<td>4.43 *</td>
<td>9.340</td>
<td>144</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Upset</td>
<td>3.16 *</td>
<td>7.16 *</td>
<td>8.312</td>
<td>144</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pleased</td>
<td>8.12 *</td>
<td>4.21 *</td>
<td>8.825</td>
<td>144</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Positive</td>
<td>Less Positive</td>
<td>Favorable</td>
<td>9.11 *</td>
<td>6.07</td>
<td>7.505</td>
<td>141</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Graphical</td>
<td>Graphical</td>
<td>Happy</td>
<td>8.99 *</td>
<td>5.71</td>
<td>8.152</td>
<td>141</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Upset</td>
<td>2.38 *</td>
<td>5.62</td>
<td>7.297</td>
<td>141</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pleased</td>
<td>8.93 *</td>
<td>5.54</td>
<td>8.042</td>
<td>141</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

* t-test supports that means are significantly different (p < 0.05) than the midpoint of the scale (6).

#### 4.2. The Effect of Positive Human Rights Information on Non-Professional Investors’ Perceptions of the Company (H1)

First, we present the tests that we used to test our first hypothesis (H1): Positive human rights information will positively affect non-professional investors’ perceptions of and likelihood of investing in companies. As a reminder, participants in all conditions received the same financial information about the company. Only participants in the treatment conditions received human rights information. To assess how non-professional investors perceived the company, we asked them the following questions: (1) “Evaluate the overall performance of the company” (Overall Performance); (2) “How attractive is ABC Company as a potential investment?” (Attractiveness); (3) “What is the likelihood you would consider ABC Company as a potential investment?” (Likelihood). Further, we measured participants’ intentions to invest by asking the question “Assume you have $10,000 to invest in the food and beverage industry. How much of this $10,000 will you invest in ABC stock?” (Investment). Participants had to answer the first three questions on an eleven-point Likert scale and the third question with a number between zero and 10,000. Table 2 reports the descriptive statistics of these variables in the control condition.
and the six treatment conditions. For each of our four dependent variables, descriptive statistics show descriptively higher mean values when human rights reporting is positive than when human rights reporting is less positive or absent (the control condition). Testing (untabulated results) shows that there is a significant difference between the seven conditions for each of these three variables: (1) Overall performance ($F_{498} = 4.135, p < 0.001$), (2) Attractiveness ($F_{498} = 11.246, p < 0.001$), (3) Likelihood ($F_{498} = 7.959, p < 0.001$).

Table 2. Descriptive statistics.

<table>
<thead>
<tr>
<th>Conditions</th>
<th>n</th>
<th>Overall Performance a</th>
<th>Attractiveness b</th>
<th>Likelihood c</th>
<th>Investment d</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Control 76</td>
<td>Positive—Numerical 74</td>
<td>Less Positive—Numerical 76</td>
<td>Positive—Qualitative 74</td>
</tr>
<tr>
<td>Overall Performance a</td>
<td>Mean</td>
<td>7.06</td>
<td>7.67</td>
<td>6.58</td>
<td>7.39</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>2.15</td>
<td>1.94</td>
<td>2.09</td>
<td>2.07</td>
</tr>
<tr>
<td>Attractiveness b</td>
<td>Mean</td>
<td>6.66</td>
<td>7.56</td>
<td>6.19</td>
<td>7.58</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>2.34</td>
<td>2.40</td>
<td>2.33</td>
<td>2.22</td>
</tr>
<tr>
<td>Likelihood c</td>
<td>Mean</td>
<td>6.49</td>
<td>7.31</td>
<td>5.97</td>
<td>7.19</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>2.59</td>
<td>2.64</td>
<td>2.70</td>
<td>2.58</td>
</tr>
<tr>
<td>Investment d</td>
<td>Mean</td>
<td>USD 2408</td>
<td>USD 3395</td>
<td>USD 2495</td>
<td>USD 2930</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>USD 2114</td>
<td>USD 2420</td>
<td>USD 2307</td>
<td>USD 2277</td>
</tr>
</tbody>
</table>

a Overall Performance: Evaluate the overall performance of the company. 1 = Very poor, 6 = Neither good nor poor, 11 = Very good. b Attractiveness: How attractive is ABC Company as a potential investment? 1 = Not at all attractive, 6 = Neutral, 11 = Very attractive. c Likelihood: What is the likelihood you would consider ABC Company as a potential investment? 1 = Not at all likely, 6 = Neutral, 11 = Very likely. d Investment: Assume you have $10,000 to invest in the food and beverage industry. How much of this $10,000 will you invest in ABC stock? $0–$10,000.

First, to test our hypotheses, we test the difference between the Positive condition and the control condition. Results in Table 3, Panel A, indeed show significantly higher values for our four variables in the Positive condition than in the control condition (all $p$-values < 0.10). Next, as additional analyses, we perform ANOVA analyses within the treatment conditions only, testing the effect of the level of positivity on our four dependent measures of interest. Our results show a significant effect of the level of positivity in the human rights reports on participants’ perception of the company, with positive reports leading to higher values than less positive reports for our three variables (1) Overall Performance ($F = 21.682, p < 0.001$), (2) Attractiveness ($F = 58.225, p < 0.001$), and (3) Likelihood ($F = 42.595, p < 0.001$) (results untabulated). Untabulated results of similar analyses on our investment variable show that the level of positivity has a significantly positive effect on Investment ($F = 28.072, p < 0.001$), with significantly higher values when human rights information is positive compared to when it is less positive.

Overall, we conclude that, consistent with H1, non-professional investors indeed react positively when human rights reports show positive information compared to when human rights information is less positive or absent.

4.3. The Effect of Less Positive Human Rights Reporting on Non-Professional Investors’ Investment Decisions (H2)

Our second hypothesis (H2) is formulated as follows: Less positive human rights information will negatively affect non-professional investors’ perceptions of companies and their likelihood of investing in companies. The descriptive statistics of our variables of interest (Table 2) show that average values for the condition where human rights information is less positive, in general, seem to be lower than in the control condition. To test our hypothesis, we perform independent sample t-tests between our less positive conditions and the control condition. Results of our tests are presented in Table 3, Panel B. Participants’ perceptions of the Overall Performance of the company do not seem to be affected by less positive human rights information ($p = 0.147$). We, however, do find
significantly lower values for our Attractiveness and Likelihood variables \((p < 0.05)\) in the Less Positive condition compared to the control condition. For our Investment variable, we do not find a significant difference between the Less Positive condition and the control condition either \((p > 0.10;\) see Table 3, Panel B).

Table 3. Impact of positive and less positive human rights information compared to no human rights reporting on non-professional investors’ perceptions and intentions to invest.

<table>
<thead>
<tr>
<th>Panel A—Positive Condition versus Control Condition</th>
<th>Positive</th>
<th>Control</th>
<th>Mean Diff</th>
<th>(T_{283})</th>
<th>(p^e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Performance (^a)</td>
<td>7.56</td>
<td>7.06</td>
<td>0.50</td>
<td>1.77</td>
<td>0.078</td>
</tr>
<tr>
<td>Attractiveness (^b)</td>
<td>7.61</td>
<td>6.66</td>
<td>0.95</td>
<td>3.02</td>
<td>0.003</td>
</tr>
<tr>
<td>Likelihood (^c)</td>
<td>7.30</td>
<td>6.49</td>
<td>0.81</td>
<td>2.33</td>
<td>0.021</td>
</tr>
<tr>
<td>Investment (^d)</td>
<td>USD 3218.26</td>
<td>USD 2408.34</td>
<td>USD 809.92</td>
<td>2.49</td>
<td>0.013</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel B—Less Positive Condition versus Control Condition</th>
<th>Less Positive</th>
<th>Control</th>
<th>Mean Diff</th>
<th>(T_{285})</th>
<th>(p^e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Performance</td>
<td>6.62</td>
<td>7.06</td>
<td>−0.44</td>
<td>1.46</td>
<td>0.147</td>
</tr>
<tr>
<td>Attractiveness (^b)</td>
<td>5.86</td>
<td>6.66</td>
<td>−0.80</td>
<td>2.30</td>
<td>0.022</td>
</tr>
<tr>
<td>Likelihood (^c)</td>
<td>5.66</td>
<td>6.49</td>
<td>−0.83</td>
<td>2.20</td>
<td>0.029</td>
</tr>
<tr>
<td>Investment (^d)</td>
<td>USD 2077.03</td>
<td>USD 2408.34</td>
<td>−USD 331.31</td>
<td>1.14</td>
<td>0.256</td>
</tr>
</tbody>
</table>

\(^a\) Overall Performance: Evaluate the overall performance of the company. 1 = Very poor, 6 = Neither good nor poor, 11 = Very good. \(^b\) Attractiveness: How attractive is ABC Company as a potential investment? 1 = Not at all attractive, 6 = Neutral, 11 = Very attractive. \(^c\) Likelihood: What is the likelihood you would consider ABC Company as a potential investment? 1 = Not at all likely, 6 = Neutral, 11 = Very likely. \(^d\) Investment: Assume you have $10,000 to invest in the food and beverage industry. How much of this $10,000 will you invest in ABC stock? $0–$10,000. \(^e\) Two-tailed \(p\)-values presented.

Overall, these findings provide mixed results with regard to H2. Non-professional investors do seem to find companies that report less positive human rights information to be less attractive as an investment, and they state that they are less likely to invest in those companies than when companies do not report human rights information, but we do not find a decrease in perception of Overall Performance of the company and for our Investment variable. We will explore these results somewhat further when testing our third and fourth hypotheses.

4.4. The Effect of Presentation Format on Non-Professional Investors’ Reactions to Human Rights Reporting (H3 and H4)

Next, we examine the impact of human rights reporting more profoundly by studying whether and how the presentation format of human rights information affects investors’ reactions to human rights reporting. Based on cognitive load theory, we formulated our third and fourth set of hypotheses to indicate directional predictions for quantitative (i.e., numerical and graphical) presentation formats but a null hypothesis for qualitative presentation format.

First, to test H3a–c, we test the difference between the positive condition and the control condition, separated out by presentation format. Table 4, Panel A, presents independent sample \(t\)-tests comparing the positive condition and the control condition within each of the three presentation format conditions. H3a predicts that the influence of positive human rights information on non-professional investors’ reactions will be positive when a numerical presentation format is used. Results show significantly higher values for our four variables of interest in the Positive condition compared to the control condition when human rights information is presented numerically \((p\text{-values} < 0.10)\). Therefore, H3a is supported.
Table 4. Impact of level of positivity and presentation format on non-professional investors’ perceptions and intentions to invest in the treatment conditions compared to the control condition.

### Panel A—Positive Conditions versus Control Conditions H3a–c

<table>
<thead>
<tr>
<th>Positive—Numerical versus Control: H3a</th>
<th>Positive—Graphs versus Control: H3b</th>
<th>Positive—Qualitative versus Control: H3c</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Diff</td>
<td>$t_{140}$</td>
<td>$p^e$</td>
</tr>
<tr>
<td>Overall Performance $^a$</td>
<td>0.61</td>
<td>1.770</td>
</tr>
<tr>
<td>Attractiveness $^b$</td>
<td>0.90</td>
<td>2.268</td>
</tr>
<tr>
<td>Likelihood $^c$</td>
<td>0.82</td>
<td>1.851</td>
</tr>
<tr>
<td>Investment $^d$</td>
<td>USD 986.35</td>
<td>2.573</td>
</tr>
</tbody>
</table>

### Panel B—Less Positive Conditions versus Control Conditions H4a–c

<table>
<thead>
<tr>
<th>Less Positive—Numerical versus Control: H4a</th>
<th>Less Positive—Graphs versus Control: H4b</th>
<th>Less Positive—Qualitative versus Control: H4c</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Diff</td>
<td>$t_{139}$</td>
<td>$p^e$</td>
</tr>
<tr>
<td>Overall Performance $^a$</td>
<td>−0.48</td>
<td>−1.342</td>
</tr>
<tr>
<td>Attractiveness $^b$</td>
<td>−0.47</td>
<td>−1.188</td>
</tr>
<tr>
<td>Likelihood $^c$</td>
<td>−0.52</td>
<td>−1.163</td>
</tr>
<tr>
<td>Investment $^d$</td>
<td>USD 86.30</td>
<td>0.231</td>
</tr>
</tbody>
</table>

### Panel C—Positive Conditions versus Less Positive Conditions—Supplemental

<table>
<thead>
<tr>
<th>Numerical Positive versus Less Positive</th>
<th>Graphs Positive versus Less Positive</th>
<th>Qualitative Positive versus Less Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Diff</td>
<td>$t_{147}$</td>
<td>$p^e$</td>
</tr>
<tr>
<td>Overall Performance $^a$</td>
<td>1.09</td>
<td>3.289</td>
</tr>
<tr>
<td>Attractiveness $^b$</td>
<td>1.37</td>
<td>3.543</td>
</tr>
<tr>
<td>Likelihood $^c$</td>
<td>1.34</td>
<td>3.049</td>
</tr>
<tr>
<td>Investment $^d$</td>
<td>USD 900.05</td>
<td>2.323</td>
</tr>
</tbody>
</table>

$^a$ Overall Performance: Evaluate the overall performance of the company. 1 = Very poor, 6 = Neither good nor poor, 11 = Very good. $^b$ Attractiveness: How attractive is ABC Company as a potential investment? 1 = Not at all attractive, 6 = Neutral, 11 = Very attractive. $^c$ Likelihood: What is the likelihood you would consider ABC Company as a potential investment? 1 = Not at all likely, 6 = Neutral, 11 = Very likely. $^d$ Investment: Assume you have $10,000 to invest in the food and beverage industry. How much of this $10,000 will you invest in ABC stock? $0–$10,000. $^e$ Two-tailed $p$-values presented.

H3b predicts that the influence of positive human rights information on non-professional investors' reactions will be positive when a graphical presentation format is used. Results show significantly higher values for three of the variables of interest in the Positive condition compared to the control condition when human rights information is presented in graphs ($p$-values < 0.10). The variable “Overall Performance” was still higher using the graphical presentation compared to the control condition; however, the difference does not reach
traditional levels of significance \( (p = 0.119) \). Therefore, for three of our four measures, H3b is strongly supported.

H3c is a null hypothesis suggesting that non-professional investors’ reactions will not be influenced when a qualitative presentation format is used. As predicted, when human rights information is presented qualitatively, we do not find a significant difference between the Positive condition and the control condition, except for the variable Attractiveness \( (p = 0.02) \). Therefore, overall, we cannot reject the null hypothesis presented in H3c.

These results provide empirical evidence that, consistent with H3a–c, non-professional investors react more positively to positive human rights information when it is presented numerically or in graphs than when the no human rights information is presented, but we find no difference between not providing human rights information and presenting human rights information qualitatively. This finding has interesting implications for the debate about the role of qualitative and quantitative human rights information, and we will critically reflect upon this finding in our discussion.

We test H4a–c by examining the difference between the Less Positive and the control condition more deeply, separated out by presentation format. Table 4, Panel B, shows the results of independent sample t-tests comparing the Less Positive and the control condition within each of the three presentation format conditions.

H4a predicts that the influence of less positive human rights information on non-professional investors’ reactions will be negative when a numerical presentation format is used. However, when referring to Table 4, Panel B, when human rights information is presented numerically, we do not find significant differences between the Less Positive condition and the control condition for any of our four variables of interest (all \( p \)-values > 0.10). Therefore, H4a is not supported, and we fail to reject the null.

H4b predicts the influence of less positive human rights information on non-professional investors’ reactions will be negative when a graphical presentation format is used. Again, interestingly, Table 4, Panel B shows that when human rights information is presented graphically, we do not find significant differences between the Less Positive condition and the control condition for any of our four variables of interest (all \( p \)-values > 0.10). Therefore, H4b also is not supported, and we fail to reject the null.

H4c was a null hypothesis predicting that non-professional investors’ reactions will not be influenced when a qualitative presentation format is used. Interestingly, when human rights information is presented qualitatively, we do find significantly lower values for the Less Positive condition than for the control condition (all \( p \)-values < 0.10). Therefore, although not predicted, there is statistical support to reject the null hypothesis for H4c.

These results for H4a–c are not consistent with our hypothesis, in which we actually predicted a negative effect when human rights information is reported using graphs or numerically, compared to the control condition but not when it is presented qualitatively. An explanation for these results may be that non-professional investors appreciate numerical or graphical information about less positive human rights information. However, while they have a harder time processing qualitative information due to higher cognitive load requirements, they may feel that the company is intentionally presenting the information vaguely in order to obfuscate the less positive information. Indeed, Adams and Frost [36] argued that by remaining too qualitative in their reporting, companies shed doubt on the credibility of the information and suggest that they may be selective in their reporting. Overall, these results are interesting as they indicate that, rather than attaching less importance to human rights information when using a qualitative presentation format, as would be the case for other types of disclosures, non-professional investors actually attach more importance to it when the human rights information is less positive. Consequently, human rights information may be unique in this regard.

Table 4, Panel C, shows the results of independent sample t-tests comparing the Positive and the Less Positive condition within each of the three presentation format conditions. Results indicate there are significant differences between the Positive and Less Positive treatment conditions for each of our three presentation formats on all four
of our dependent variables. Taking the results of our analyses together, it appears that non-professional investors react differently to positive and less positive human rights information regardless of its presentation format, but when comparing to the status quo (control condition), it also appears the non-professional investors’ reactions, compared to when no human rights information is provided, are more consistent with companies’ interests when presenting human rights information numerically or graphically but not when presenting the information qualitatively. In what follows, we provide a critical discussion of our results.

5. Discussion

In this paper, we use an experiment with Mechanical Turk participants to examine whether human rights reporting has an impact on non-professional investors’ perceptions of the reporting company and their investment intentions. While companies around the world are increasingly providing sustainability reports [1,4,96], reporting human rights information remains less common [4]. Normative arguments have been made to increase human rights reporting [7–11], but—because of the lack of empirical research on human rights reporting—the question remains what the impact of reporting would be, such as the effect on non-professional investors’ perceptions and investment decisions.

We study this question for different ways in which human rights information can be presented, i.e., numerical, graphical, and qualitative presentation formats, to report this information. This is interesting in a human rights setting because it is argued that human rights reporting currently remains too qualitative and that by remaining too qualitative in their reporting of information, companies shed doubt on the credibility of the information and suggest that they may be selective in their reporting [4,17,35,36]. However, critical scholars have long been warning for the prevailing perception of quantitative accounting information as more accurate, objective, and neutral. Rather, they argue that it is important to recognize that numbers are always “produced”, based on underlying interests, and, as such, political in nature [42–46]. Consequently, it is crucial to maintain a critical mindset, not only when processing qualitative but also when processing quantitative information. This may be even more relevant in a human rights setting where reporting is found to remain selective [36] and may even be used for window dressing and impression management purposes [26–30,72–75]. By examining how informative human rights information, presented in different ways, is to non-professional investors, we are able to inform this long-standing debate with empirical evidence.

Overall, our results show that when positive human rights information is presented numerically or in graphs, non-professional investors’ perceptions of companies are significantly more positive, and their willingness to invest in those companies is significantly higher than when human rights information is absent. We also find that when using a numerical presentation format or graphs, less positive human rights information does not seem to influence investors’ reactions compared to when companies do not report on human rights. When companies present human rights information qualitatively, however, we find no difference between investors’ reactions to positive human rights information compared to no human rights information, but we do find significantly less positive perceptions of the company and significantly lower investments when less positive human rights information is presented compared to when no human rights information is presented.

With our study, we provide some very interesting, but also potentially worrisome, insights. Specifically, when human rights information is positive, participants seem to closely rely on this information in their judgments when the reporting is done numerically or graphically. Participants seem to have taken this information, when reported numerically or in graphs, at face value and without much critical thinking, even though we did not mention anything to them about the accuracy of the information. From the literature, we know that numbers are never completely neutral and value-free [42–46]. Moreover, companies may be selective and opportunistic in their human rights reporting and in their sustainability reporting in general and use it for window dressing or impression manage-
ment reasons [8,28,30,36,73]. The fact that we specifically find these positive reactions when information is positive is even more worrisome, as overly positive results may especially be a sign that companies are using human rights reporting for ulterior motives.

Furthermore, non-professional investors may not only be more prone to affective reactions than professional investors [50,51] but also have lower risk tolerance than professional investors. For example, safeguarding assets may be the main concern of a non-professional investor investing retirement savings, whereas professional investors can often afford higher levels of risk [52]. For these reasons, they may already be more vulnerable than professional investors to misinformation, which makes it even more problematic that this type of investors seems to process human rights information with a less critical mindset. At the same time, when considering these results, it may even be disappointing that non-professional investors seem to reward companies for something which is considered to be a universally required responsibility [20–24]. In an ideal world, as companies are required to respect human rights anyway, learning that companies actually do this should not come as a surprise.

Another insight is that instead of, as predicted, negative reactions when less positive information is reported numerically or graphically compared to no reporting, we find that, similar to the positive information condition, non-professional investors’ reactions are actually more aligned with the interests of the reporting company. Specifically, we do not find any reactions to numerical or graphical information when the information is less positive compared to no reporting. However, we do find negative reactions when qualitative information is reported compared to no human rights reporting. This is interesting as arguments are found in the literature that human rights information remains too qualitative in nature [4,17,35,36]. On the one hand, there appears to be definite value in quantification, as long as one keeps in mind that there are limitations to quantified data and that these are not automatically accurate, objective, or neutral [97]. On the other hand, especially when advocating a need for more quantification, it is important to be aware that quantitative information seems to induce outcomes that may serve the interest of the reporting companies.

Finally, one could see potential value in providing assurance, i.e., auditing, of human rights information and increased standardization of this type of reporting to alleviate these concerns [98–101]. In this way, the risk can be decreased that companies will use presentation formats opportunistically and that they will report selectively. With regard to assurance, the extant research on sustainability reporting has already found that independent assurance enhances the credibility of sustainability reporting [1,102–104]. However, evidence about the potential impact of these types of regulations remains scarce in a human rights setting, and it must be noted that assurance and standardization are not value-free either [105,106]. As such, increased standardization and assurance, while potentially valuable, should not be considered the holy grail, and even in the presence of standardization and assurance, a critical mindset would have to be maintained.

Further, this study is subject to a number of limitations that give rise to opportunities for future research. First, the focus of this paper is on the effect of human rights reporting on non-professional investors. It is likely that professional investors interpret human rights information differently from non-professional investors [50,51,107]. In addition, as indicated before, experts such as professional investors are less likely to react to differences in presentation formats [38,80,81]. It would be interesting for future research to examine whether and how the impact of human rights reporting would change if investors are professionals. Another limitation is that we only used U.S. participants in our experiment. Future research may study how participants with other nationalities would react to human rights information. Further, in the setting of human rights reporting, it would also be valuable to learn more about companies’ motives and decisions when issuing reports with human rights information. This would be an interesting research topic that future research could examine, for example, through conducting interviews.
Next, in this study, we examine how non-professional investors react to human rights information in general. However, we do acknowledge that within the broader category of human rights, there are subcategories and that non-professional investors may care more about certain aspects than others. For future research, it may be interesting to examine how non-professional investors would react if other types of human rights information were presented and what types of human rights information they actually weight more in their assessment of human rights reporting. Further, one could also distinguish some other potentially interesting characteristics of human rights reporting, which we did not incorporate in our current study due to its general nature, such as how users of human rights information would react if clear benchmarks with regard to human rights performance were provided, or if human rights would be more versus less relevant for the particular company or industry.

Further, this study uses human rights information provided by the company. Investors may view human rights information differently if reported from an independent, third-party source. We also did not utilize any explicitly negative human rights information but instead varied the information to be more positive versus less positive, with human rights performance in the Less Positive condition coming across as lower than it could be. We believe this should be more realistic and bias against finding results. As such, we cannot speak to the effect of human rights information if companies encounter serious human rights problems. Hence, it may be interesting to examine how investors react to clearly negative human rights information. Finally, in our instrument, there was no reason to expect participants in the control condition held preexisting expectations concerning being provided a human rights report. We made this choice because of the dearth of human rights reporting in general. As such, our study matches the current reporting environment. Future research could explore how investors react when they expect to see a human rights report but then are not provided such information.


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Conflicts of Interest: The authors declare no conflict of interest.

Appendix A. Examples of Treatment Conditions

Appendix A.1. Positive—Numerical Condition

In accordance with our strategy to make a better world, ABC Company has made human rights a top priority in corporate responsibility.

ABC Company has made a number of significant, and effective, efforts to reduce human rights violations in our supply chain. Due to these efforts, we rank among the 25% human rights leaders in our industry.

For example, we are proud to announce that on average 92% of our production facilities on every continent have been audited for ethical labor compliance, with the highest audit rate being in North America with 100% and the lowest audit rate being in Asia with 85% of production facilities audited.
These audits have also been able to inform the growing number of sensitivity and ethics trainings that we require our employees to attend. In 2013, we offered 12 such trainings, and now, in 2017, we offered 30.

From these thorough audits and training sessions we have been able to reduce our annual human rights violations from 400 cases in 2012 to 5 cases in 2017.

ABC Company is devoted to ensuring safe and secure work environments for all of its employees worldwide, and will continue to make the world better through these audits.

Appendix A.2. Less Positive—Numerical Condition

In accordance with our strategy to make a better world, ABC Company has been making efforts to ensure happiness and a safe work environment for our employees.

ABC Company has made efforts to reduce human rights violations in our supply chain, but we still rank among the 25% lowest industry performers on human rights.

For example, 40% of our production facilities on every continent have been audited for ethical labor compliance, with the highest audit rate being in North America with 60% and the lowest audit rate being in Asia with 25% of production facilities audited.

ABC Company also offers sensitivity and ethics trainings to its employees. Since 2013, we offer 13 training sessions per year. In 2015, we increased this number to 16 trainings, but in 2017, we only offered 13.

The results of our audits and training sessions show a decrease from 400 violations in 2012 to 365 violations this year.

We would like to decrease this number further, though we expect this to be a slow process.

Appendix A.3. Positive—Qualitative Condition

In accordance with our strategy to make a better world, ABC Company has made human rights a top priority in corporate responsibility.

ABC Company has made a number of significant, and effective, efforts to reduce human rights violations in our supply chain. Due to these efforts, we rank among the leaders in human rights in our industry.

For example, we are proud to announce that a large number of production facilities worldwide have been audited for ethical labor compliance.

These audits have also been able to inform the growing number of sensitivity and ethics trainings that we require our employees to attend.

From these thorough audits and training sessions we have been able to reduce our annual human rights violations to a record low quantity.

ABC Company is devoted to ensuring safe and secure work environments for all of its employees worldwide, and will continue to make the world better through these audits.

Appendix A.4. Less Positive—Qualitative Condition

In accordance with our strategy to make a better world, ABC Company has been making efforts to ensure happiness and a safe work environment for our employees.

ABC Company has made efforts to reduce human rights violations in our supply chain, but we still rank low on human rights performance compared to our industry peers.

For example, a selected number of production facilities worldwide have been audited for ethical labor compliance.

ABC Company also offers sensitivity and ethics trainings to its employees. However, the amount of training sessions is decreasing.

Unfortunately, these audits and training sessions have not significantly reduced our annual human rights violations per year.

We would like to decrease this number further, though we expect this to be a slow process.
Appendix A.5. Positive—Graphs Condition

In accordance with our strategy to make a better world, ABC Company has made human rights a top priority in corporate responsibility.

ABC Company has made a number of significant, and effective, efforts to reduce human rights violations in our supply chain. Due to these efforts, we rank among the leaders in human rights in our industry (see the Figure A1).

Figure A1. Presented to participants in the positive-graphs.
ABC Company is devoted to ensuring safe and secure work environments for all of its employees worldwide, and will continue to make the world better through these audits.

Appendix A.6. Less Positive—Graphs Condition

In accordance with our strategy to make a better world, ABC Company has been making efforts to ensure happiness and a safe work environment for our employees.

ABC Company has made efforts to reduce human rights violations in our supply chain, but we still rank low on human rights performance compared to our industry peers (see the Figure A2).

Figure A1. Presented to participants in the positive-graphs.

Figure A2. Presented to participants in the less positive-graphs condition.
We would like to decrease this number further, though we expect this to be a slow process.

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