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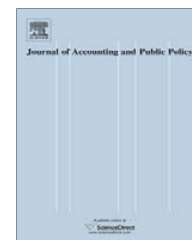
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The impact of corporate social disclosure on investment behavior: A cross-national study

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ABSTRACT

We examine the impact of corporate social disclosure (CSD) on investment behavior in the US, Japan, France, and Sweden using stakeholder theory as the underlying framework for our analysis. We find that there is a significant difference in investors' reactions to CSD across countries. Using a unique stakeholder scale we also find that these reactions are related to the investors' stakeholder orientation. These findings provide insight into cross-national differences in the perceived relevance of CSD to investors.

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1. Introduction

In recent years, while some researchers have examined the determinants of corporate social disclosure (CSD) others have studied the implications of CSD (e.g., economic performance, investment behavior). However, there are few studies that have attempted to bridge these two streams of literature. Additionally, in spite of documented variations in CSD among countries, much of the theoretical CSD research is confined to a domestic context (van der Laan Smith et al., 2005; Aerts et al., 2007 are exceptions).

In this study, we attempt to bridge the literature on determinants and implications of CSD by examining the impact of CSD on investment behavior in a cross-national context using stakeholder theory as the underlying framework for our analysis. van der Laan Smith et al. (2005), using stakeholder theory as the basis for their analysis, demonstrate that differences in institutional factors

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(e.g., culture) are significant in explaining the perceived relevance of stakeholders and the variation in CSD across countries. Experimental CSD studies (Belkaoui, 1980; Chan and Milne, 1999) document that CSD impacts investment decisions although their findings are mixed and are obtained from single-country studies. We bridge these two streams of research by validating and extending prior research using stakeholder theory to examine how differences in the perceived relevance of stakeholders influence the impact of CSD on investor behavior.

A major challenge in bridging these two streams of research is that instruments that were developed to measure societal values (e.g., Hofstede indices) have been used by researchers to study the cross-national determinants of CSD; however instruments that focus on the potential investor perspective are more appropriate for studying the implications of CSD on investment decisions. To overcome this challenge, we develop a stakeholder scale to measure potential investor's beliefs about the extent to which they value corporate social responsibility. The measures obtained from our stakeholder scale are consistent with that documented in prior research. We use the stakeholder scale to conduct an experiment to examine the effect of the introduction of CSD on the short and long-term investment behavior of participants from the US, Japan, Sweden, and France. We select these countries based on an assessment of cultural differences that would likely lead to divergent perceptions on the legitimacy and importance of different stakeholder groups. We find that CSD significantly impacts the participants' investment behavior within each country. Additionally, we find that there is a significant, systematic national difference in investors' reactions to positive CSD.

Our study makes several contributions to the extant literature. First, we validate van der Laan Smith et al. (2005) by demonstrating the generalizability of stakeholder theory to analyze cross-national differences in CSD. Second, we bridge the literature on determinants and implications of CSD by providing a direct link between stakeholder expectations and investment behavior. Third, we develop and present a stakeholder scale that measures the importance of corporate social responsibility to individual investors. Our stakeholder scale is consistent with cultural expectations reported in prior research and provides an alternative valid instrument that measures the value placed on corporate social responsibility from an individual rather than a societal perspective.

Section 2 of this paper discusses the theoretical background and forms the basis for four hypotheses exploring the relationships between country, stakeholder views, and investment behavior. The sample, experimental design, and data collection procedures are discussed in Section 3. The results are presented and discussed in Section 4 and Section 5 provides concluding comments.

2. Background and hypotheses development

Extant cross-national studies on CSD (Fekrat et al., 1996; Freedman and Stagliano, 1992; Gamble et al., 1996; Meek et al., 1995; Newson and Deegan, 2002) examine different time periods, types of CSD, and countries and find significant variations in CSD across countries. These studies are primarily descriptive in nature and a theoretical understanding of these observed cross-national differences is in the developmental stage. Triandis (1995) finds that cultural factors influence national expectations of corporate responsibility. van der Laan Smith et al. (2005) combine institutional factors, including culture, and use stakeholder theory to explain cross-national differences in the level and quality of CSD. In this paper, we extend van der Laan Smith et al. (2005) and argue that institutional variations influence perceptions of the relevance and role of stakeholders in framing expectations regarding corporate responsibilities to engage in CSD. We contend that from a cross-national perspective these institutional variations are most divergent and stakeholder theory provides a basis for predicting the impact of CSD on investment behavior.

The stakeholder concept is intended to "broaden management's vision of its roles and responsibilities beyond the profit maximization functions to include interests and claims of non-stockholding groups" (Mitchell et al., 1997, p. 855). Stakeholder theory is the basis for a strategic management model that purports that the effective company will identify and manage important relationships (Freeman, 1999). Stakeholder theory systematically seeks to identify which stakeholder groups deserve the most attention of managers. The premise underlying our study is that societal values shape indi-

vidual beliefs about the role of the corporation and the importance of different stakeholder groups in a country. These stakeholder beliefs influence the reporting practices (e.g., CSD) of organizations and the behavior of individuals (e.g., investment decisions). Thus, the cross-national variations in CSD practices and reactions of individuals to disclosed CSD are related to a culturally derived view of the stakeholders of the corporation. Jones et al. (2007) identify and discuss the concept of a stakeholder culture construct at the organizational level. We investigate if there is an identifiable stakeholder culture construct at the country level. We select participants for our study from countries that display cross-national variations in culture.¹

Hofstede (1980, p. 25) defines culture as the “collective programming of the mind which distinguishes the members of one group from another”. Hofstede's (1980) four dimensions of human values (individualism/collectivism, power distance, uncertainty avoidance, and masculinity/femininity) have been widely used in the literature to classify countries according to cultural constructs. Our four countries, Japan, Sweden, France, and the US, reside in distinct cultural areas as identified by Hofstede (1980, 2001) and in a recently published study, the *Global Leadership and Organizational Behavior Effectiveness Research Program* (GLOBE) study of societies (House et al., 2004).² Similarly, cultural differences documented by the World Values Survey, an academic project ongoing since the early 1980s and updated every 5 years, are fairly significant among the four countries in certain dimensions (Inglehart and Baker, 2000). For example, in the traditional/secular dimension, the extent to which a society emphasizes traditional as opposed to secular and rational values, Japan and Sweden cluster together fairly closely but there are significant differences among Japan/Sweden, France, and US. All these studies suggest that cultural differences are quite significant between the four countries.

Extant literature also examines the consequences of CSD. Researchers have examined the relationship between CSD and economic performance (Al-Tuwaijri et al., 2004) and analyst's forecasts (Aerts et al., 2007). The findings of these studies generally suggest that CSD is desirable and valued by investors. Experimental CSD studies (Belkaoui, 1980; Chan and Milne, 1999; Hendricks, 1976) directly examine the impact of CSD on the investment behavior of individuals. These studies find that CSD impacts investment decisions and is affected by the investors' background and beliefs, although their findings on the direction of the impact are mixed. Chan and Milne (1999) and Belkaoui (1980) also find that the investment strategy, short or long-term, impacts the investment decision. Differences in time frames, samples, and research design may explain some of the mixed results reported in extant literature.³ Additionally, all the experimental CSD studies are confined to a single-country framework. In this paper, we leverage stakeholder theory and extend van der Laan Smith et al. (2005) to examine the impact of CSD on investment behavior across countries. To bridge the two literatures – determinants of CSD (e.g., van der Laan Smith et al., 2005) and impact of CSD on investor behavior (e.g., Chan and Milne, 1999; Belkaoui, 1980), we develop a unique stakeholder scale that measures the relative importance investors place on corporate social responsibility. Our stakeholder scale is distinct from other proxies, such as the Hofstede indices, used in the literature in that it measures the relative importance of corporate social responsibility from an individual investor perspective rather than a societal perspective. Use of the stakeholder scale also represents an improvement in the instrumentation used in the literature and helps to resolve the mixed findings of prior CSD experimental studies.

¹ Our four sample countries also belong to distinct legal families (La Porta et al., 1998).

² van der Laan Smith et al. (2005) identify Hofstede's masculinity/femininity dimension as particularly relevant in measuring the importance placed on corporate social responsibility. Because feminine societies emphasize nurturance issues (relationship, cooperation, and environment) reflecting concern for a broader set of social issues than the narrower focus on assertiveness issues (earnings and advancement) found in masculine societies, there should be a stronger stakeholder orientation in feminine societies than masculine societies. Our sample countries exhibit wide variance in terms of their scores on the masculinity/femininity dimension.

³ Hendricks (1976) and Belkaoui (1980) focus on very specific environmental disclosures namely human resource and pollution cost information that are quantifiable and reported in the financial statements or footnotes. Chan and Milne (1999) focus on broader constructs of environmental information but their study is conducted in New Zealand where they argue the emphasis on environmental reporting has been rather low which in part explains the weak results they obtain for some aspects of their study.

3. Hypotheses

We develop and test four hypotheses to validate the stakeholder scale that we introduce and to replicate and extend prior research on the determinants and impact of CSD on investment behavior.

Given that our experiment is structured such that the participants are from countries from different cultural clusters, we expect the impact of CSD will be different for the four countries. However, given the findings from the [Belkaoui \(1980\)](#), [Chan and Milne \(1999\)](#), and [Hendricks \(1976\)](#) studies we anticipate that CSD will be relevant to investors within each country. Thus, we hypothesize:

H1. Positive CSD will affect short and long-term stock investment decisions.

Our second hypothesis seeks to define the conceptual basis for CSD and to provide insight into the mixed findings of prior studies. We develop a stakeholder scale to measure the stakeholder orientation of the participants. We anticipate that there will be a relationship between this scale and the investment decision. We hypothesize:

H2. The impact of CSD on the investment decision of individuals will be positively related to their scores on the stakeholder scale.

Based on our discussion of stakeholder theory, we argue that institutional factors such as culture shape societal expectations regarding corporate responsibilities to engage in CSD. The observed differences in cross-national CSD practices identified in prior research ([van der Laan Smith et al., 2005](#); [Newson and Deegan, 2002](#); [Gamble et al., 1996](#); [Fekrat et al., 1996](#); [Meek et al., 1995](#); [Freedman and Stagliano, 1992](#)) are the result of differences in societal expectations. These differences will be reflected in the stakeholder orientation of the investors and will manifest themselves in investors' decisions regarding CSD. This gives rise to our third and fourth hypotheses:

H3. Countries with different institutional frameworks will have different Stakeholder Scores.

H4. The country of the investor will significantly affect the impact of CSD on the investment decision.

Hypotheses 1 and 4 replicate and extend prior research on determinants and impact of CSD on investor behavior, while hypotheses 2 and 3 also validate our stakeholder scale.⁴

4. Methodology

4.1. Experimental design

This experiment uses a within-subject (repeated-measures design) conducted with one group from each of the countries in the study. The within-subject design removes the variability caused by individual differences among the participants. This makes the design more powerful while also requiring fewer subjects than completely randomized designs ([Stevens, 2002](#)). The cause/effect relationship between the conceptual variables and their operational definitions is presented in [Fig. 1](#) using [Libby's \(1981\)](#) "predictive validity framework."

As shown in [Fig. 1](#), culture, an independent variable, affects Stakeholder Beliefs, an intervening independent variable. Both of these concepts affect the investment decision, the dependent variable. Culture was operationalized by selecting participants for the experiment from countries with divergent cultures. Stakeholder Beliefs are measured using a stakeholder scale. The effect on the investment decision is operationalized as the change in investment that occurs after the introduction of CSD.

⁴ Given the exploratory nature of the study and the newness of the theoretical framework adopted, we do not provide specific predictions on the relative impact of culture on stakeholder scores or the relative magnitude of the impact of CSD on investors' behavior across our sample countries in our hypotheses.

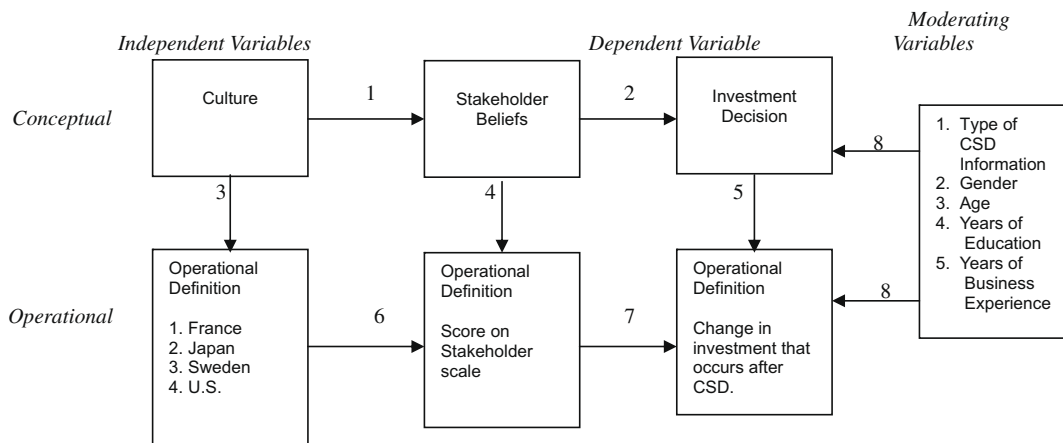


Fig. 1. Conceptual network. Source: Adapted from Libby (1981).

Table 1

Participant demographics. This table presents frequencies on the gender, age and work experience of the participants. (Sample sizes presented here and in the following tables vary based on the number of responding participants).

	US (n = 54)	Japan (n = 68)	Sweden (n = 33)	France (n = 36)
<i>Gender</i>				
Male	65%	78%	79%	53%
Female	35%	22%	21%	47%
<i>Age group</i>				
20–29	61%	66%	55%	94%
30–39	32%	16%	42%	0
40–49	7%	9%	3%	6%
50 or older	0	9%	0	0
<i>Work experience</i>				
Less than 1 year	8%	44%	12%	81%
1–3 years	22%	13%	21%	13%
4–5 years	22%	12%	24%	0
6–10 years	22%	12%	31%	6%
More than 10 years	26%	19%	12%	0

Other factors (type of CSD, gender, age, education, and years of experience) identified in prior research as having an effect on investment decisions serve as moderating variables. The design of this experiment allows for the control of the effect of these extraneous variables.

4.2. Participants

The study participants are graduate business students from the US, France, Sweden, and Japan. Graduate students are recognized as appropriate surrogates for general investors in experimental research in financial accounting.⁵ Using students in the same area of study from the four countries also mitigates sample equivalence concerns inherent in cross-national research. Professors from the four countries administered the experiment to graduate business students at their universities.⁶ The final sample for this study is composed of 54 participants from the US, 68 from Japan, 33 from Sweden, and 36 from France. We present the demographic data in Table 1.

4.3. The experiment

This experiment is divided into three sections. The first section consists of background and financial accounting information (Net Sales, Net Income, Total Assets, Earnings per Share on

⁵ See Libby et al. (2002) for a comprehensive list of experimental financial accounting studies that employed student subjects.

⁶ Institutional approval for the use of human participants was received as required.

Common Stock, and Cash Dividends Paid) on two firms, Company A and Company B. The financial information is provided for a five-year period for the firms and is similar except that Company A's Net Income and Earnings per Share on Common Stock is less than Company B's by 6–8% per year.

After reviewing the financial information, the participants are asked to allocate a total of \$100,000 between the two firms under a short-term strategy, defined as investing for speculative profit, and a long-term investment strategy, defined as investing for long-term share ownership. After completing the initial investment decision the participants are instructed to proceed to the second part of the experiment.

The second part consists of additional footnote disclosure (CSD) describing the proactive environmental and labor practices and policies of Company A which require it to adhere to internationally recognized labor and environmental standards regardless of whether they are required in the countries in which it operates. These two forms of CSD were chosen since they relate to two identifiable categories of stakeholders, employees which are considered primary or normative stakeholders and the environment a secondary or derivative stakeholder group (Clarkson, 1995; Phillips, 2003). The information also explicitly states that Company A's higher operating costs are a result of these policies. After reviewing the additional disclosure the participants are asked to again allocate the \$100,000 in equity investment between the two firms under a short and long-term investment strategy.

The last section of the experiment consists of demographic questions (gender, age, nationality, and work experience), a manipulation check question, and six perceptual questions the results of which form the stakeholder scale. Additionally, three English language comprehension questions are included in the non-US versions of the experiment.

As an internal validity check, we pre-tested the experiment with 21 graduate students from the US. The experiment was administered to the participants and then repeated approximately 1 month later with the same participants. The students who participated in this preliminary testing were not included in the final sample of US students. Results of the paired samples *t*-test indicate that there was no statistically significant difference in the means between the two administrations of the experiment. These findings allow us to attribute the change in investment in this experiment to the introduction of the CSD.

The experiment was translated into Japanese and French using translators in the US and back translated by professors from Japan and France. The participants in France and Japan were offered the choice of reading the materials in English; however, all of the participants chose to complete the French and Japanese versions, respectively. The professor from Sweden indicated that the Swedish graduate business students were fluent in English and translation was unnecessary. The results of the English language check questions completed by the Swedish participants are consistent with this observation.

4.4. Stakeholder scale

There are no existing instruments available to measure the stakeholder construct at the investor level (Kwok and Sharp, 1998), therefore we constructed a stakeholder scale. Based on a review of the literature, we developed 14 questions each representing either a stakeholder orientation or a shareholder orientation. The questions were pre-tested with students from the US with the participants' responses measured on a 5-point Likert scale. The 14 questions were reduced to a five-item scale using factor analysis. Reliability analysis conducted on this five-item scale resulted in an alpha of .70.

To assess if investors would be willing to accept a lower financial return if a company maintained a proactive social responsibility policy, an additional question was added to the five items representing the stakeholder construct. The resulting stakeholder scale (Appendix A) consists of six Likert scaled items designed to measure the respondents' stakeholder orientation.

We used the optimal scaling technique to test for construct equivalence of our scale across countries. Optimal scaling is a form of factor analysis recommended for use in assessing measurement equivalence in cross-national research (Batista-Foguet et al., 2004; Mullen, 1995; Shen and

Table 2

Stakeholder Score – descriptive statistics. This table presents the mean, standard deviation, minimum, maximum statistics, and Cronbach's alpha on the Stakeholder Score by country.

	US (<i>n</i> = 53)	Japan (<i>n</i> = 62)	Sweden (<i>n</i> = 33)	France (<i>n</i> = 35)
Mean	20.2	22.1	21.3	21.2
Standard deviation	3.9	3.2	4.1	3.3
Maximum score (30)	28.0	28.0	29.0	29.0
Minimum score (6)	9.0	14.0	13.0	16.0
Cronbach's alpha	.734	.617	.738	.641

Table 3

Investment behavior – descriptive statistics. This table presents the mean (standard deviation in parentheses) of the amount invested in company, the CSD Company, and the investment change^a by country (000's omitted).

	US (<i>n</i> = 53)	Japan (<i>n</i> = 60)	Sweden (<i>n</i> = 33)	France (<i>n</i> = 36)
<i>Short-term</i>				
Part A	29 (19)	29 (24)	18 (17)	28 (17)
Part B	37 (26)	34 (22)	42 (35)	36 (23)
<i>Long-term</i>				
Part A	37 (20)	47 (21)	35 (21)	45 (13)
Part B	55 (26)	65 (23)	62 (32)	57 (20)
Investment change – The mean and (standard deviation) for the short-term and long-term investment change				
Short-term	8.9 (23.0)	5.0 (20.1)	23.2 (33.3)	7.5 (16.0)
Long-term	19.2 (27.5)	17.2 (22.8)	26.7 (26.9)	12.2 (19.2)

^a The investment change is calculated as the amount invested in Company A in Part B of the experiment less the amount invested in Company A in Part A of the experiment.

Lai, 1998). The results (unreported) suggest an adequate measurement model and construct equivalence.⁷

The stakeholder scale score (Stakeholder Score) is the summation of the responses to the six, 5-point Likert scaled questions in Part C of the experiment (see Appendix). A cross-national analysis of the factor loadings on the stakeholder construct for each of the six questions did not reveal a consistent pattern in the strength of the loadings across countries. Based on this observation, a non-weighted summation of the Likert scale responses for the composite score was used. The scale was anchored with *strongly disagree* as 1 and *strongly agree* as 5.⁸

Descriptive statistics on the Stakeholder Scores for each country are reported in Table 2. The mean values of the Stakeholder Scores are consistent across countries. The reliability estimates are above .70 for the US and Sweden and above .60 for Japan and France. These reliability estimates are acceptable given the purpose of this experiment and that this is the first testing of the Stakeholder Scale outside of the US (Pedhazur and Schmelkin, 1991).

5. Results

Descriptive statistics on the investment change variable are presented in Table 3 for each country. A positive (negative) investment change indicates that there was an increase (decrease) in investment in the CSD Company. As shown in Table 3, the participants' mean investment, across all countries, for both the short and long-term horizons is positive indicating an increase in investment after introduction of the CSD. Sweden has the largest mean change in investment on a short-term investment horizon followed by the US, France, and Japan. Sweden also had the largest mean change in investment on a long-term horizon followed by the US, Japan, and France.

⁷ As an additional test of measurement equivalence, the optimally scaled values were compared across countries for response pattern similarity as recommended by Mullen (1995). Taken as a whole, the response patterns in each of the countries are similar providing further indication of measurement equivalence in the stakeholder scale.

⁸ One question was worded such that a strongly agree response expressed a shareholder orientation, so it was reverse coded for determining the Stakeholder Score.

Table 4

MANOVA within-country investment changes. Test of H1.

	US (n = 52)	Japan (n = 51)	Sweden (n = 33)	France (n = 34)
<i>Panel A: Results of the MANOVA model^a</i>				
	.000*** (12.506)	.000*** (14.852)	.000*** (16.092)	.000*** (9.864)
<i>Panel B: Results of the short-term and long-term ANOVA models</i>				
Short-term	0.007*** (7.820)	.122 (2.479)	.000*** (15.990)	.006*** (8.773)
Long-term	.000*** (25.396)	.000*** (27.526)	.000*** (32.461)	.001*** (13.747)

Panel A presents the p values (F-statistics) for the intercept from the MANOVA performed jointly on the short-term and long-term investment changes for each country independently.

Panel B presents the p values (F-statistics) for the intercepts from the ANOVAs performed separately on the short-term and long-term investment changes for each country independently.

^a The sample size may vary since some participants did not complete both the short-term and long-term investment decisions for both Part A and Part B of the experiment.

*** Denotes significant at $p < .01$ based on Pillai's trace multivariate test.

5.1. Manipulation checks

The manipulation check question asked the participants to identify the CSD Company. The percentage of participants correctly identifying the Company by country is as follows: US 98%; Japan 92.5%; Sweden 100%; and France 100%.⁹ These results indicate an understanding of the treatment. As an additional manipulation check the participants' responses to the survey question, "I would be willing to accept a lower return on my investment in a company if that company maintained a proactive social responsibility policy" were compared to the amount of the participant's long-term investment change. Results of the correlation analysis confirm a positive relationship between the response to this question and the investment change in all of the countries providing further evidence that the participants understood the experiment.

5.2. Hypotheses testing

5.2.1. Tests of Hypothesis 1

To test if the positive CSD affected the investment decision (H1), a MANOVA model was performed for each country independently, using both short and long-term investment changes as dependent variables. The moderating variables were not included in this model since the within-subjects design of the experiment holds these variables constant. The changes were calculated by subtracting the amount invested in the CSD Company, in Part A of the experiment from the amount invested in the CSD Company in Part B. Within the MANOVA model the intercept estimates the overall mean change for a country. H1 is supported by the data if the overall mean change, as represented by the intercept, is significantly different from zero indicating that a significant change in investment occurred as a result of the introduction of CSD. As shown in Table 4, Panel A, the intercept is significant ($p < .01$) for all countries. These results support H1 and suggest that the impact of CSD on the investment decision is quite strong given that we find significant results in each of the four countries. Prior research conducted on a single country level (Belkaoui, 1980; Chan and Milne, 1999; Hendricks, 1976) found that CSD influenced investment behavior. However, while the prior findings on the direction of the change in investment behavior were mixed (Chan and Milne, 1999) our results show that positive CSD influenced the investor to increase their investment in the disclosing company.

Given the findings of significance in the MANOVA models, ANOVA was performed for each country independently on the mean short and long-term investment changes to determine if one or both Investment Behavior variables are significant. The results of the ANOVA tests are presented in Table 4, Panel B. The intercept is significant ($p < .01$) in the short-term model for Sweden, France, and the US and is significant ($p < .01$) in the long-term model for each of the four countries.

⁹ Participants who failed the manipulation check question were excluded from the reported findings. The inferences from our analysis do not change when those participants are included or excluded in the analysis.

The short-term results are informative since they may be more reflective of the stakeholder orientation than the long-term results. The experiment was structured such that there was a financial cost (the lower return) associated with the CSD company's socially responsible practices that in the short-term the participant would not recoup, whereas in the long-term alternative explanations for the investment behavior could conceivably be used to explain the results (e.g., investment for takeover possibilities). Focusing on the short-term results we find that they mirror the countries' rankings on Hofstede's masculinity–femininity dimension. Sweden, ranked the most feminine country, demonstrated the greatest impact followed by France, the US, and lastly by Japan, which is ranked the most masculine country.

5.2.2. Test of Hypothesis 2

H2 states that the impact of CSD on the investment decisions of individuals is related to their Stakeholder Score. H2 was tested using a MANCOVA model, for each country independently, with the short and long-term investment changes as dependent variables. Stakeholder Score was included as the covariate in the model. The MANCOVA model did not include the age, gender, and work experience moderating variables as these variables did not have a significant main effect or two-way interaction effect and decreased the power of the analysis when included in the model. These and follow up analyses using ANCOVA are presented in Table 5.

As shown in Table 5, Panel A, Stakeholder Score is significant for the US and Sweden at the $p < .01$ level in the MANCOVA model and in the short and long-term ANCOVA models. Stakeholder Score is significant at the $p < .10$ level for France in the long-term ANCOVA model. As an additional test of the relationship between the Stakeholder Score and Investment Behavior variables a correlation analysis was conducted between Stakeholder Score and the short and long-term investment changes. These results, presented in Table 5, Panel B, reveal a significant ($p < .01$, 1-tailed) relationship between short and long-term investment change and Stakeholder Score in the US and Sweden and a significant ($p < .05$, 1-tailed) relationship between long-term investment change and Stakeholder Score in France.

We conducted OLS regression analyses to verify that the observed significant effect for the Stakeholder Score was in the direction hypothesized (positive) i.e., an increase in investment is associated with a higher Stakeholder Score implying a stakeholder orientation. The Stakeholder Score was regressed on the investment change variables for each country independently with gender, age, and

Table 5
Relationship between Stakeholder Score and investment changes. Test of H2.

	US (n = 52)	Japan (n = 51)	Sweden (n = 33)	France (n = 33)
<i>Panel A: Results of the MANCOVA model and short-term and long-term ANCOVA models</i>				
<i>MANCOVA</i>				
Intercept	.011** (4.950)	.607 (.505)	.009*** (5.463)	.469 (.775)
Stakeholder Score	.001*** (8.321)	.217 (1.575)	.001*** (9.701)	.193 (1.741)
<i>Short-term ANCOVA</i>				
Intercept	.004*** (9.115)	.582 (.308)	.002*** (11.269)	.857 (.033)
Stakeholder Score	.001*** (13.423)	.439 (.608)	.000*** (19.031)	.551 (.364)
<i>Long-term ANCOVA</i>				
Intercept	.044** (4.281)	.413 (.682)	.128 (2.448)	.216 (1.595)
Stakeholder Score	.003*** (9.863)	.121 (2.494)	.009*** (7.718)	.076* (3.376)
	US	Japan	Sweden	France
<i>Panel B: Results of the correlation analysis of Stakeholder Score and Investment Change</i>				
Short-term change and Stakeholder Score	.000*** (.460)	.113 (.203)	.000*** (.617)	.202 (.146)
Long-term change and Stakeholder Score	.001*** (.406)	.202 (.074)	.005*** (.446)	.038** (.313)

Panel A presents the p values (F-statistics) from the MANCOVA performed jointly on the short-term and long-term investment changes and the ANCOVA performed separately on the short-term change and long-term investment change for each country. Adjustment was made for the Stakeholder Score.

Panel B presents the 1-tailed p values (Pearson correlation coefficients) obtained from the correlation analysis of Stakeholder Score and short-term change and Stakeholder Score and long-term change.

* Denotes significant at $p < .10$, based on Pillai's trace for the multivariate test.
 ** Denotes significant at $p < .05$, based on Pillai's trace for the multivariate test.
 *** Denotes significant at $p < .01$ based on Pillai's trace for the multivariate test.

work experience included as moderating variables. No directional relationship has been hypothesized for the moderating variables. Table 6, Panel A presents the results of the short-term regression model and Panel B presents the results of the long-term regression model. As shown, the Stakeholder Score coefficient estimates are positive, as predicted, for each of the countries in both the short-term and long-term regression models indicating that an increase in investment in the CSD company is associated with a higher Stakeholder Score. The results are significant at the $p < .01$ level for the US and Sweden in both regression models and at the $p < .10$ level for France in the long-term model.

We find consistent results when we compare the regression models with the MANCOVA/ANCOVA models. In both models, the relationship between Stakeholder Score and the investment variables is

Table 6
Regression analysis results – additional test of H2.

Variable	Predicted sign	Coefficient estimate		t-statistic
		Unstandardized	Standardized	
<i>Panel A – Short-term investment change</i>				
Co A Short-term change = $\beta + \beta$ score + β gender + β age + β work experience				
<i>US</i>				
Score	+	2.725	.461	3.565***
Gender	?	-6.038	-.125	-.971
Age	?	-7.827	-.219	-1.276
Work experience	?	5.181	.294	1.754*
<i>Japan</i>				
Score	+	.760	.116	.842
Gender	?	-7.271	-.158	-1.104
Age	?	6.164	.300	1.237
Work experience	?	-4.119	-.345	-1.390
<i>Sweden</i>				
Score	+	6.120	.751	4.645***
Gender	?	-16.175	-.202	-1.235
Age	?	-20.111	-.342	-1.508
Work experience	?	14.073	.521	2.385**
<i>France</i>				
Score	+	1.381	.288	1.337
Gender	?	.278	.008	.043
Age	?	.666	.020	.044
Work experience	?	-6.168	-.293	-.643
<i>Panel B – Long-term investment change</i>				
Co A Long-term change = $\beta + \beta$ score + β gender + β age + β work experience				
<i>US</i>				
Score	+	2.923	.412	3.065***
Gender	?	-11.502	-.198	-1.483
Age	?	-7.858	-.183	-1.027
Work experience	?	2.748	.130	.746
<i>Japan</i>				
Score	+	1.561	.223	1.618
Gender	?	-6.349	-.118	-.838
Age	?	-.852	-.033	-.136
Work experience	?	-3.391	-.243	-.986
<i>Sweden</i>				
Score	+	3.871	.588	3.159***
Gender	?	-18.103	-.280	-1.486
Age	?	1.250	.026	.101
Work experience	?	5.392	.247	.982
<i>France</i>				
Score	+	2.037	.409	2.064*
Gender	?	2.431	.071	.388
Age	?	16.680	.494	1.176
Work experience	?	-6.601	-.309	-.736

* Significant at $p < .10$.
 ** Significant at $p < .05$.
 *** Significant at $p < .01$.

only significant ($p < .05$) in the US and Sweden. The absence of findings for Japan and the mixed findings for France in both sets of models may be due to measurement error, note that Japan and France had lower reliability estimates than the US and Sweden on the stakeholder scale (see Table 2). While the results of our tests provide only partial support for H2, we believe that overall they do suggest that stakeholder beliefs are related to investment behavior. Additionally, the results also provide support for our stakeholder scale as a valid measure of the importance of social responsibility to a culture at the individual level.

5.2.3. Tests of Hypothesis 3

Conceptually, the institutional environment is hypothesized to affect stakeholder beliefs. H3 follows this premise and purports that there will be cross-national differences in the Stakeholder Scores reflective of the differences in institutional environments. As shown in Table 2, the mean Stakeholder Score for the US is 20.2, Japan is 22.1, Sweden is 21.3, and France is 21.2.

To determine if there are statistically significant differences in these scores an ANOVA model with the Stakeholder Score as the dependent variable, including country as a factor was used to test this hypothesis. Age, gender, and work experience were included as moderating variables. The model was constructed to include two-way interactions. Due to the composition of the sample data and the lack of variability, three way interactions could not be calculated. The results, presented in Table 7, reveal that country had a significant ($p < .01$) effect on the Stakeholder Score indicating significant cross-national differences in stakeholder beliefs. This finding supports H3 providing evidence suggesting that the stakeholder concept is a valid theoretical framework for evaluating CSD implications consistent with the findings from van der Laan Smith et al. (2005). Additionally, support for H3 also suggests that our stakeholder scale is consistent with cultural expectations reported in prior research.

Gender also had a significant ($p = .05$) main effect and a significant ($p < .05$) interaction effect with country indicating that there is a significant difference in the Stakeholder Scores in these countries between males and females. Further examination of the gender variable (not shown in Table 7) revealed that the mean Stakeholder Score for females is statistically higher ($p < .01$) than for males in Sweden implying that there may be cultural differences associated with gender.

5.2.4. Test of Hypothesis 4

If stakeholder beliefs influence investment behavior and these beliefs are influenced by culture as hypothesized, we should find significant, cross-national differences in the impact of CSD on investment behavior (H4). A MANCOVA model was constructed to test this hypothesis. It included the short and long-term investment changes as the dependent variables, the intercept, Country as a factor, and Stakeholder Score as a covariate. Age, gender, and work experience were included as moderating variables.

Table 7

Test of Stakeholder Scores – cross-national. Test of H3.

<i>Results of the ANOVA model</i>	
Intercept	.000*** (735.38)
Country	.007*** (4.229)
Gender	.050** (3.909)
Age	.482 (.826)
Exp.	.694 (.608)
Country*gender	.017** (3.490)
Country*age	.052* (2.413)
Country*Exp.	.668 (.744)
Gender*age	.527 (.643)
Gender*Exp.	.360 (1.106)
Age*Exp.	.103 (2.100)

This panel presents the p values (F-statistic for the intercept and the country factor) from the ANOVA performed on the Stakeholder Scores. Country (the US, Japan, Sweden, and France) is the factor of interest. Age, gender, and work experience (Exp.) were treated as fixed factors.

* Denotes significance at $p < .10$.

** Denotes significant at $p < .05$.

*** Denotes significant at $p < .01$.

Table 8

Cross-national test of investment changes. Test of H4.

Independent Variables ^a	MANCOVA ($n = 165$) ^b	Short-term ANCOVA	Long-term ANCOVA
Intercept	.009*** (4.976)	.024** (5.231)	.009*** (6.983)
Country	.046** (2.174)	.049** (2.696)	.046** (2.376)
Stakeholder Score	.000*** (12.555)	.001*** (11.312)	.000*** (19.295)
Gender	.769 (.263)	.489 (.482)	.714 (.135)
Age	.677 (.666)	.457 (.874)	.713 (.456)
Work Experience	.243 (1.280)	.274 (1.287)	.204 (1.474)
Gender*age	.077* (2.142)	.276 (1.303)	.053* (3.007)
Gender*work experience	.703 (.723)	.976 (.161)	.343 (1.141)
Gender*country	.993 (.124)	.944 (.127)	.916 (.171)
Age*work experience	.433 (.990)	.330 (1.156)	.536 (.730)
Age*country	.958 (.230)	.938 (.200)	.855 (.334)
Work experience*country	.192 (1.295)	.394 (1.065)	.138 (1.555)

This table presents the p values (F-statistic) from the MANCOVA with short-term and long-term investment changes as the dependent variables (DVs). Country is the independent variable. Age, gender, and work experience (Exp.) were treated as fixed factors in the MANCOVA. Adjustment was made for the Stakeholder Score. The short-term and long-term ANCOVAs are also presented.

^a Three-way interactions are not presented because of the difficulty with interpretability due to sample size and composition.

^b The sample size may vary since some participants did not complete both the short-term and long-term investment decisions for both Part A and Part B of the experiment.

* Denotes significant at $p < .10$, based on Pillai's trace for the multivariate test.

** Denotes significant at $p < .05$, based on Pillai's trace for the multivariate test.

*** Denotes significant at $p < .01$, based on Pillai's trace for the multivariate test.

The results of the test of H4 are presented in Table 8. As shown, the Country variable is significant ($p < .05$) indicating a cross-national difference in investors' reactions to positive CSD. This result supports H4.

The Stakeholder Score is also significant ($p < .01$) indicating a relationship between the Stakeholder Score and Investment Changes consistent with the results of H2. The moderating variables did not reveal a significant main effect. There was an interaction effect ($p < .10$) between gender and age in the MANCOVA and further analysis revealed that that younger, male participants had a larger mean change in investment than older, male participants and the opposite was found for the female participants. However, the limited sample size and lack of variability in the gender and age variables within our sample make it difficult to make reliable inferences from the interaction effects.

We conducted follow up analysis of the Investment Behavior variables using ANCOVA with the intercept, Country factor, and Stakeholder Score as a covariate. Age, gender, and work experience were included as moderating variables. As shown in Table 8, the results revealed that the country factor did have a significant effect in the short-term and long-term models ($p < .05$). These results indicate that the cross-national difference in investors' reactions to positive CSD is discernable on both the short-term and long-term investment horizon. These results are consistent with our findings for H1. Stakeholder Score is also significant ($p < .01$) in both the short and long-term ANCOVA models. These findings support H3; the country of the investor affects the impact of CSD on the investment decision. The moderating variables did not reveal a significant main effect. There was an interaction effect ($p < .10$) between gender and age in the long-term ANCOVA, see the previous discussion of the MANCOVA model for the analysis of this effect.

5.2.5. Robustness test

The within-subject design of our experiment may have influenced the participants to react positively to the CSD and increase their investment in the disclosing company for reasons other than their stakeholder orientation. For example, the participants may have guessed the purpose of the study when they read the CSD and reacted to experimental pressures or may have reacted to cultural pressures. Therefore, as a robustness test, we removed the participants who did not invest in the CSD Company in the first part of the experiment i.e., invested nothing in Company A, and then invested in it after reading the CSD. In the short-term investment scenario there were 15 participants who met these criteria, 3 from the US, 7 from Japan, 5 from Sweden, and none from France. In the long-term investment scenario there were 12 participants who met these criteria, 4 from the US, 4 from Japan, 3 from Sweden, and 1

from France. When we removed these participants and reran our models we found no significant differences with our original models and our conclusions as previously discussed did not change. These results help to mitigate the concern with the within-subject experimental design.

6. Conclusions

In this study we use stakeholder theory and argue that the role of a corporation in society and the perception of the relative importance of its stakeholders are influenced by a country's unique cultural heritage. Further, a country's stakeholder orientation affects the way in which investors react to CSD. We examine this argument by conducting an experiment to observe the impact of the introduction of CSD on the investment behavior of participants from four countries (US, Japan, Sweden, and France) that we expect will exhibit significant differences in their underlying stakeholder views.

We find that CSD does impact investment behavior within each of the countries in our sample and that the extent of this impact is influenced by their stakeholder orientation. Taken as a whole, the results of our experiment suggest that there are systematic, cross-national differences in the investment response to CSD and that the stakeholder concept is useful in explaining this variation. Thus, as hypothesized, our results suggest that a country's culture contributes to shaping expectations regarding stakeholders which in turn influence investment behavior. Our findings highlight the promise of stakeholder theory in providing a unifying theoretical framework to study cross-national differences in CSD. In addition, by substantiating the link between CSD and the stakeholder concept this study adds to both the stakeholder and the CSD literature.

An important contribution of this study is the development of a unique stakeholder scale that measures the relative importance of corporate social responsibility which has not been used in the prior literature. Our stakeholder scale provides an alternative valid instrument that captures the relative importance placed on corporate social responsibility measured from an investor rather than a societal perspective. The measures obtained from our stakeholder scale are consistent with cultural expectations documented in prior research.

The findings from this study should be interpreted with consideration for the following limitations. First, the experiment in this study was developed and pre-tested in the US. The cultural norms and values from the US may have affected the design of the experiment and may be reflected in the phrasing of the questions developed to measure the stakeholder construct. Second, the experiment and survey were translated into Japanese and French. Although precautions were taken to ensure the accuracy of the translation, there exists the possibility of misinterpretation of the stakeholder construct questions. Third, we used graduate business students as the participants in our study. While we believe that their perceptions represent the values of a given society, an interesting extension of this research would be to use practicing professionals as participants in a study of this nature. Fourth, the results may be influenced by the particular configuration of our sample participants, e.g., the French sample contained the youngest and least experienced participants. While we attempted to identify and control for these variables and to make inferences only with clear support, the possibility that our results are an artifact of our sample is a limitation of this study. Finally, as is not uncommon in quasi-experimental research the results of this study may not be generalizable to non experimental situations.

Notwithstanding these limitations our study provides several promising avenues of research. Our exploratory study provides initial evidence of the link between stakeholder expectations and investment behavior. Future research could use stronger methodological designs including using investment professionals as the target sample in examining the impact of stakeholder expectations on investment decisions. Additionally, our stakeholder scale provides an alternative valid instrument that can be used in future research to explore the relationship between corporate social responsibility and investment behavior. Lastly, in our study we noted that there was an interaction effect between Stakeholder Score and the moderating variables, age, gender, and work experience. However, given the configuration of our sample it was difficult to reliably interpret the effects. Future studies could specifically explore the relationship between stakeholder orientation and the impact on financial reporting with attention to the effect of gender, age, and work experience.

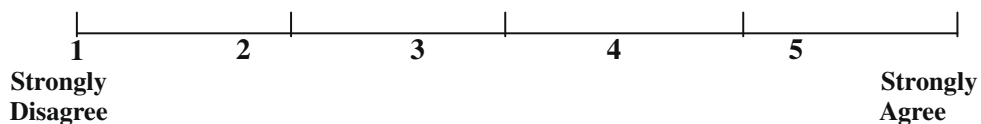
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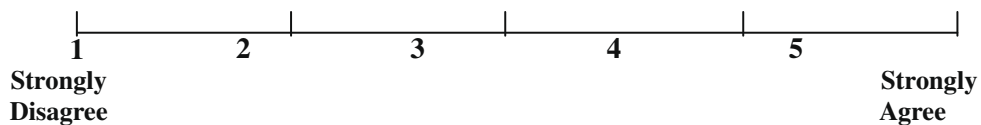
Appendix. Stakeholder scale*

For the following questions rate the extent to which you agree or disagree with the statement, as it refers to you, by circling a number on the scale presented below each question.

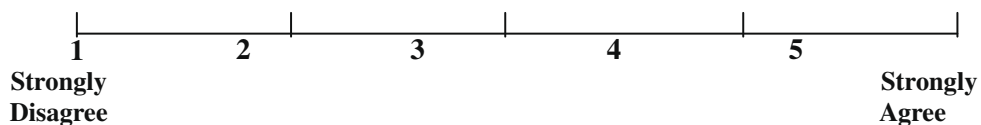
1. A corporation's proactive policy on social responsibility, such as labor practices and environmental practices, would have a positive influence on my decision to invest in that corporation?



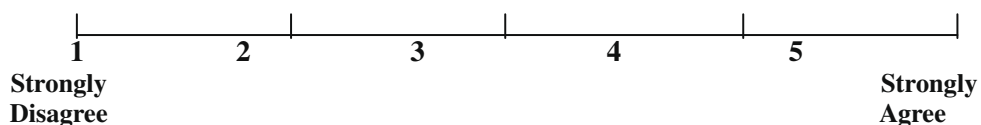
2. It is the responsibility of the corporation to distribute the benefits and risks arising from corporate activities among all people or groups of people that are impacted by its operations.



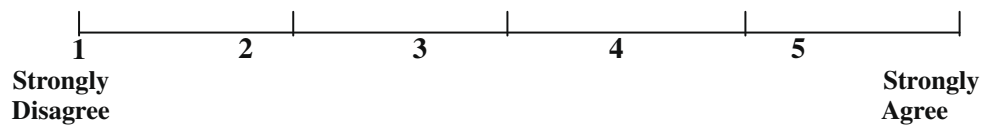
3. A corporation's primary purpose is to maximize shareholder wealth.



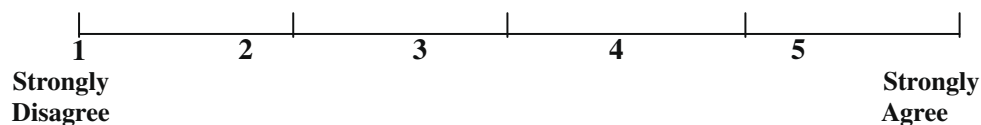
4. Corporations have a responsibility to actively monitor and take into account in their operations, the concerns of all people or groups of people that are impacted by their operations.



5. A mutual fund's policy to invest in corporations that have an established proactive social responsibility policy would have a positive influence on my decision to invest in that mutual fund.



6. I would be willing to accept a lower return on my investment in a company if that company maintained a proactive social responsibility policy.



*The summation of the scores to these six questions (question 3. was reverse coded) form the Stakeholder Score.

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