The Impact of Corporate Social Disclosure on Investment Behavior –
A Cross-National Study

Introduction

Gernon and Wallace (1995) state “a purpose of international accounting research is to make apparent in different countries the connection between accounting institutions and practices and their environment” (p. 54). Since environmental factors (economic, legal, social, cultural, etc.) vary across countries, the accounting standards and practices differ across countries accordingly.

One area of accounting practice that has been found to differ across countries is corporate social disclosure (Freedman and Stagliano, 1992; Meek et al., 1995; Fekrat et al., 1996; Gamble et al., 1996; Gray et al., 2001; Newson and Deegan, 2002). Corporate social disclosure (CSD) is generally used to refer to the information companies provide about their environmental, community, employee, and consumer activities and relationships.

This paper, through a cross-national study, examines the impact of CSD on investment behavior employing the stakeholder concept as the theoretical framework for the analysis. Single country studies of CSD dominate the literature. The few cross-national studies of CSD that have been conducted, have found that country of origin is an important factor in explaining variations in the level and quality of CSD (Freedman and Stagliano, 1992; Meek et al., 1995;
Fekrat et al., 1996; Gamble et al., 1996). However, these studies did not identify the underlying reasons for this variation.

The most promising theories, legitimacy theory and stakeholder theory, which have been identified as an explanation for CSD, have been utilized in studies that focused on CSD within a single country (Patten, 1991 and 1995; Brown and Deegan, 1998; Gray et al., 1995). The results of these studies have been inconsistent and have not resulted in a generally accepted theory for CSD. As Gray et al. stated, “whilst the concerns of Preston (1983) and Ullman (1985) that investigations into social disclosure lacked a theoretical basis have largely been overcome…it is probable that the theories are still insufficiently specified” (Gray et al., 2001, p. 332).

In this study we utilize the stakeholder concept as the theoretical framework for the analysis of CSD. The stakeholder concept is the basis for a strategic management model that purports that the effective company will identify and manage important relationships (Freeman, 1999). Within the stakeholder model CSD is viewed as part of the communication between management and its stakeholders. Given, that the primary purpose of financial accounting is to provide information that is relevant to the users of that information (SFAC No. 2, “Qualitative Characteristics of Accounting Information”) the observed cross-national differences in CSD may be reflective of differences in management’s view of the importance and role of stakeholders. Thus, in an international context the usefulness of accounting information may systematically differ for users based upon their nationality.
Understanding these differences will provide information on the relevance of accounting disclosures, specifically CSD, to users from different countries. By using a conceptual framework to examine an accounting disclosure area that has been found to differ across countries, this study also adds to our understanding of the determinants of accounting disclosure and increases our understanding of the impact of environmental factors specifically, culture on accounting.

Radebaugh (1975) recognized cultural attitudes as a factor influencing a country’s development of accounting objectives, standards, and practices. Gray (1988), building on the Hofstede cultural dimensions, hypothesized that cultural values influence a country’s accounting systems. Perera (1989) in discussing the environmental factors that influence a country’s accounting practices stated, “culture is often considered to be one of the powerful environmental factors affecting the accounting system of a country” (1989, p. 4). In their single country CSD study, Neu et al. (1998) found that the level of general social attention and concern was associated with the level of corporate environmental disclosure. While these studies have recognized cultural factors as influencing the development and practice of accounting, no study has explored the influence of culture on CSD through a cross-national analysis.

This study is designed to fill this research gap by analyzing the impact of CSD on the investment decision of individuals from four different countries. The premise underlying this study is that individuals hold certain beliefs about the role of the corporation in society and these beliefs determine their definition of the
stakeholders of the corporation. These stakeholder beliefs influence the behavior of the individuals and the accounting practices of the organizations within their society. It follows from this premise that the observed cross-country variations in CSD are related to a culturally derived view of the stakeholders of the corporation.

A society may generally believe that the purpose and responsibility of a corporation is to maximize shareholder wealth, “shareholder capitalism”, or in contrast it may hold the general view that a corporation is responsible for balancing the claims of a broader group of stakeholders, “stakeholder capitalism.” A corporation that operates in a stakeholder capitalistic society will define its stakeholders differently than a corporation that operates in a shareholder capitalistic society. In this study we examine whether individuals in a “stakeholder” society will place more importance on CSD in their investment decisions than do individuals in a “shareholder” society.

To analyze the behavior of investors we designed an experiment to examine the impact of the introduction of information on international labor practices and environmental practices (CSD) on the short-term and long-term investment behavior of participants from four countries; the U.S., Japan, Sweden, and France. These countries were selected, based on the cross-cultural work of Hofstede (1991, 1998, 2001) and Gannon (2001), as countries whose investors would be expected to have divergent views on the relevant stakeholders of a corporation, thus providing an optimal sample for the testing of the stakeholder concept as the theoretical framework for CSD.
We find that CSD significantly (p<.01) impacted the participant’s investment behavior within each country in both a short-term and long-term investment horizon. We also found that there was a significant (p<.01), systematic difference in investors’ reactions to positive CSD across countries.

To determine if the cross-country differences in investors’ reactions to CSD can be predicted using the stakeholder concept we developed a stakeholder scale that exhibited cross-country construct equivalence. The results revealed that the stakeholder scale score was significantly (p<.01) related to the U.S. and Swedish participant’s reactions to CSD.

Using the stakeholder concept to posit a direction for the differences in investors’ reactions to CSD we compared the investment behavior between countries with opposing views on the stakeholders of a corporation (Sweden and Japan). These tests revealed that the impact of CSD on the investment decisions of individuals from the country expected to have the strongest stakeholder orientation (Sweden) was positive and significantly (p<.01) greater than the impact of CSD on the investment decisions of participants from the country expected to have the strongest shareholder orientation (Japan). This provides strong evidence for the use of the stakeholder concept as the theoretical framework for analyzing CSD.

The remainder of this paper is organized into the following consecutive sections: Background and Hypotheses Development; Methodology; Results; and, Conclusions and Limitations.
Background and Hypothesis Development

CSD accounting research encompasses both voluntary and mandatory disclosure research as well as, research relating to specific areas such as environmental reporting. Cross-national studies conducted by Gamble et al. (1996), Fekrat et al. (1996), Meek et al. (1995) and Freedman and Stagliano (1992) all found that the country in which a company is domiciled was an important factor in determining the level of CSD.

More recently, Newson and Deegan (2002) conducted a cross-national CSD study by examining the voluntary CSD contained in the annual reports of multinational corporations headquartered in Australia, Singapore, and South Korea. Using legitimacy theory Newson and Deegan argued that large multinational corporations use CSD in response to global expectations rather than in response to their “home” country’s expectations. However, their results indicated little association between global expectations and CSD implying that the societal expectations of the corporation’s country of origin have a more significant impact than global expectations. This supports the proposition that culture influences investors’ information needs and thus, a corporation’s CSD practices.

Several studies examine the CSD contained in corporate annual reports from a single country. Examples include Guthrie and Parker (1989), Patten (1991, 1995), Gray, et al. (1995), Neu et al. (1998), and Brown and Deegan (1998). While early CSD studies conducted in the 1970s based their analysis on
the concept of a social contract\textsuperscript{1}, the more recent work has used a legitimacy theory framework (Patten, 1991, 1995; Brown and Deegan, 1998; Neu et al., 1998; Guthrie and Parker, 1989). However, the inconsistent results on the applicability of legitimacy theory reported in the above studies imply the need for further development of a theoretical framework for CSD.

Gray et al. (1995) provide an in depth analysis of 20 years of CSD literature summarizing the empirical findings and categorizing the studies into the following three theoretical contexts: 1) decision-usefulness studies, 2) economic theory studies, and 3) social and political theory studies. They conclude that the social and political theory studies, which include stakeholder theory and legitimacy theory, are “the more interesting and insightful theoretical perspectives…it is these approaches which have been informing much of the more penetrating analyses of CSR [CSD] in recent years” (Gray et al., 1995, p. 52).

The current study analyzes the observed cross-national differences in investors’ reactions to CSD within the framework of the stakeholder concept. The stakeholder concept presents a theory for viewing the corporation’s role in society. The central premise of the stakeholder theory is that “the economic and social purpose of the corporation is to create and distribute wealth and value to all its primary stakeholder groups, without favoring one group at the expense of others” (Clarkson, 1995, p. 112). This theory is in contrast to the shareholder or principal/agent model of the corporation that views the role of the corporation as primarily serving the needs of the shareholders.

\textsuperscript{1} See Gray et al., 1995, for a discussion on the development of CSD research.
Within the framework of the stakeholder concept, CSD is viewed as a method of communicating with stakeholders. Preston et al. (1999), underline the importance of this open communication between management and its stakeholders, “managers should listen to and openly communicate with stakeholders about their respective concerns and contributions, and about the risks that they assume because of their involvement with the corporation” (p. 4). From an accounting perspective, the primary method of communicating with stakeholders is through annual reports. This study focuses on CSD as a corporation’s method of communicating information on its relationship with non-shareholder groups and the impact that this information has on the investment decision.

Experimental CSD studies (Hendricks, 1976; Belkaoui, 1980; Chan and Milne, 1999) have examined the impact of CSD on the investment behavior of individuals within a single country. Belkaoui (1980), Chan and Milne (1999), and Hendricks (1976) all found that CSD did impact the investment decision and was affected by the background and beliefs of the investor, although their findings on the direction of the impact were mixed. Chan and Milne and Belkaoui also found that the investment strategy, short-term or long-term, impacted the investment decision. Given these research findings, in this experiment we anticipate that CSD will be relevant to investors and thus will impact the participant’s investment decisions within each country. Thus hypothesis one states:

\[ H_1: \text{Positive CSD will affect stock investment decisions.} \]
The second hypothesis seeks to define the conceptual basis for CSD. Although Belkaoui (1980), Chan and Milne (1999), and Hendricks (1976) all found that CSD had an impact on the investment decision, they observed both increases and decreases in investment behavior as a result of the introduction of CSD. This experiment seeks to provide insight into these mixed findings by analyzing the relationship between stakeholder beliefs and the investment decision. In this study, we developed a stakeholder scale, described in the Survey Instrument section below, to measure the degree to which the respondents embrace stakeholder capitalism. It is anticipated that there will be a relationship between this scale and the investment decision at the individual level within each country, specifically, the second hypothesis is:

\[ H_2: \text{The impact of CSD on the investment decision of individuals will be related to their score on the stakeholder scale.} \]

Although there are no prior cross-country CSD experiments, the significant cross-county differences in CSD found in content analysis studies (Freedman and Stagliano, 1992; Meek et al., 1995; Fekrat et al., 1996; Gamble et al., 1996; Gray et al., 2001; Newson and Deegan, 2002) imply that culture influences investors’ information needs and thus, a corporation’s CSD practices. Previous research has also found that culture impacts the identification of relevant stakeholders of a corporation (van der Laan Smith et al., 2005). Therefore, it is anticipated that there will be systematic differences in the impact of CSD on the investment decision of individuals at the country level. It is hypothesized that these differences are a result of the influence of culture on investors’ beliefs. Individuals from countries that emphasize quality of life issues
will place a greater value on stakeholder capitalism than individuals from countries that emphasize career and financial goals (shareholder capitalism). This value orientation will affect their perceptions on the relevant stakeholders of the corporation resulting in cross-country differences in the investment decision as a result of the impact of CSD. It will also affect the size and/or direction of the impact of CSD on the investment decision. Thus, the third and fourth hypotheses are:

**H3:** The country of the investor will affect the impact of CSD on the investment decision.

**H4:** The impact of CSD on the investment decisions of individuals in countries that emphasize stakeholder capitalism will be positive and greater than the impact on the investment decisions of individuals in countries that emphasize shareholder capitalism.

**Methodology**

**Experimental Design**

The conceptual design of the experiment in this study is presented in Figure 1 using Libby’s (1981) “predictive validity framework.”

*Insert Figure 1 about here.*

The predictive validity framework shows the cause/effect relationship between the variables, referred to as Concepts, and their operational definitions. Concept A, culture, affects Concept B, stakeholder beliefs. Both Concepts A and B are independent variables that affect Concept C, Investment Decision. The investment decision is the dependent variable. Selecting participants for the experiment from four countries with different cultural values, described in the
following section, will operationalize Concept A. Concept B will be measured using a stakeholder scale. The effect on the investment decision, Concept C, is operationalized as the change in investment that occurs after introduction of the treatment i.e., the CSD.

Other factors, which have been identified in prior research as having an effect on investment decisions, are shown as moderating variables in Figure 1. The design of this experiment allows for the control of the effect of these extraneous variables.

**Countries**

Individuals from the U.S. Japan, Sweden, and France were selected to participate in this experiment. These countries were selected using Hofstede’s (1991, 1998, 2001) masculinity/femininity (M/F) dimension as a proxy to represent the cultural view of the role of the corporation in society, stakeholder capitalism versus shareholder capitalism. The values measured by the M/F dimension relate to the importance placed by a society on nurturance interests (relationships, cooperation, and environment), labeled feminine, versus assertiveness interests (earnings, advancement), labeled masculine (Hofstede, 2001). Feminine societies emphasize quality of life issues while masculine societies emphasize career and financial goals. The dominant issues on the feminine side are related to those issues typically discussed by companies in CSD, e.g., “natural environment; employees; community; and customers” (Gray, et al., 1995, p. 81).
In this study, countries with a feminine orientation were used to represent stakeholder cultures and countries with a masculine orientation were used to represent shareholder cultures. Hofstede’s masculinity scale ranks Japan as 1, representing the most masculine society, Sweden is ranked 53, representing the most feminine society, the U.S. is ranked 15, and France is ranked 35/36 (Hofstede, 2001). Thus, Japan and the U.S. were chosen for this study as countries that emphasize shareholder capitalism and France and Sweden as countries that emphasize stakeholder capitalism.

Participants

This study uses graduate students, as a surrogate for naïve investors, as the participants in an experiment designed to examine the impact of CSD on the investment behavior of individuals. The use of graduate students in experimental research in financial accounting has been recognized as appropriate surrogates for general investors\(^2\). Given that the goals of this experiment are to measure the impact of culture on beliefs and the effect of those beliefs on naïve investors’ reactions to CSD, graduate business students are appropriate subjects. They have the level of knowledge necessary to understand the experiment and should be representative of their culture.

The Experiment

The experiment in this paper is modeled after those conducted by Hendricks (1976), Belkaoui (1980) and Chan and Milne (1999). Our experiment uses a within-subjects repeated measures (pretest-posttest) design.

\(^2\) See Libby et al. (2002) for a comprehensive list of recent experimental financial accounting studies that employed student subjects.
This experiment is divided into three parts, labeled Part A, Part B, and Part C. Each participant in the experiment received all three parts. Part A consisted of financial accounting information on two firms, Company A and Company B. The financial information on the two firms included the following selected financial data provided for a five-year period, Net Sales, Net Income, Total Assets, Earnings per Share on Common Stock, and Cash Dividends Paid. The financial information for the two firms was similar except that Company A is less profitable than Company B. That is, Company A’s Net Income and Earnings per Share on Common Stock is less than Company B’s by 6% - 8% per year during the five-year period.

After reviewing the financial information, the participants were asked to compare the companies and then allocate $100,000 in equity investment between the two firms under a short-term and long-term investment strategy. The short-term strategy was defined as investing for speculative profit and the long-term strategy was defined as investing for long-term share ownership. The information package also included general background information on the companies’ business, global operations, and manufacturing and importing practices. The participants were told that the past prices of the companies’ stock had been approximately equal. This statement was included so that the participants would focus on the income differences and the CSD and not differences in the stock prices. After completing the initial investment decision the participants were instructed to proceed to Part B of the experiment.
Part B consists of additional footnote disclosure describing the environmental and labor practices and policies of Company A in positive terms. This CSD is intended to be proactive going beyond the regulatory requirements of a specific country. It states that Company A has a corporate policy that requires it to adhere to internationally recognized labor and environmental standards regardless of whether or not they are required in the countries in which it operates. The information also explicitly states that Company A’s lower net income is a result of these policies. The environmental and labor practices areas of CSD were chosen since they represent a primary\(^3\) stakeholder group, employees, and a secondary stakeholder group, public stakeholders. In order to provide for a clear treatment effect and improve the internal validity of the experiment, no additional information was provided on Company B.

After reviewing the additional disclosure the participants were asked to compare the companies and again allocate $100,000 in equity investment between the two firms under a short-term and long-term investment strategy. The participants were instructed that they may refer back to the financial information and general information provided in the first part of the experiment but that they should not change their original investment decision.

Part C of the experiment contained the survey instrument that is described in detail in the following section.\(^4\)

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\(^3\) See (Clarkson, 1995) for a description of primary and secondary stakeholders.

\(^4\) A preliminary test of an earlier version of the experiment conducted in 2002 using 80 undergraduate accounting students indicated that the information in the package was understandable and that there was a change in investment behavior as a result of the introduction of CSD.
In order to increase the external validity of this experiment the accounting information provided on the two firms, Company A and Company B was developed based on a modification of the annual reports of a company that is an international manufacturer and marketer of entertainment products and services. The identity of the company was not disclosed.

**Survey Instrument**

To examine the relationship between the investment decision and investor beliefs on the stakeholders of the corporation, Part C of the experiment asks the participants to complete a survey which contains demographic questions (gender, age, nationality, and work experience), perceptual questions, and one question related to Company A’s footnote disclosure (manipulation check question). The manipulation check question serves to verify the participant’s comprehension of the experimental treatment. This survey contains thirteen questions in the U.S. version and 15 questions in the non-U.S. version (two additional English language comprehension questions are included in the non-U.S. version).

The perceptual portion of the survey is designed to assess the participants’ views on the stakeholders of the corporation (stakeholder construct). The unit of response is the individual. The level of the analysis for this construct is the individual respondent for hypothesis three and in the aggregate at the country level for hypotheses four and five. The questions on the survey are presented as statements with the participant’s response based on a 5-point Likert scale, anchored with “Strongly agree” (5) to “Strongly disagree” (1). Schwei...
and O’Connor (1989) examined the use of the Likert method for measuring attitudes in international accounting research and found it to be effective.

There are no existing instruments available to measure the stakeholder construct (Kwok and Sharp, 1998). Given the lack of an existing instrument to measure the stakeholder construct, a new scale was developed. Based on a review of the literature fourteen items were developed and pretested during the preliminary test of the experiment. Factor analysis using principal components analysis was used to refine the items. The final scale is composed of six items which are included in the survey portion of the experiment.

**Results**

**Participant Demographics**

Professors from the U.S., Japan, Sweden, and France were contacted and asked to administer the experiment to graduate business students at their universities. The professors who participated in this experiment and their affiliated universities are presented in Appendix I. The final sample for this study is composed of participants from the U.S. 54, Japan 68, Sweden 33, and France 36. Demographic information (gender, age, work experience etc.) on the participants was collected and is presented in Table 1.

*Insert Table 1 about here.*

**Experiment**

**Tests of Internal Validity**

In order to improve the internal validity of this experiment and thus the interpretability of the outcome, this experiment was administered to U.S.
participants using a repeated-treatment methodology. The students who participated in this test of the treatment effect were not included in the sample of students who participated in the cross-country portion of the experiment.

The results of the paired samples t-test indicate that there was no statistically significant difference in the means (n=21, p>.10, 2-tailed) between the first and second administration of the experiment. These findings allow us to interpret the change in investment in this experiment as a result of the introduction of the CSD.

To determine if the participants in the experiment understood the treatment that was being manipulated, i.e., the introduction of CSD, a manipulation check question was included in the survey (Part C of the experiment). The percentage of participants correctly identifying the CSD Company by country is as follows: U.S. 98%; Japan 92.5%; Sweden 100%; and, France 100%. These results indicate an understanding of the treatment.

**Instrument Equivalence**

Prior to collecting the cross-national data, the instrument equivalence was assessed considering both translation and calibration equivalence. In order to improve the translation equivalence the experimental package was translated into Japanese and French using translators in the U.S. and back translated by professors from Japan and France. The participants in France and Japan were offered the choice of taking the experiment in English; however all of these participants chose to complete the French and Japanese versions, respectively. The Professor from Sweden indicated that the graduate business students in
Sweden were fluent in English and it was not necessary to have the experiment
translated. The results of the three English language check questions included
in the post-experimental questionnaire completed by the Swedish participants
are consistent with this observation.

Calibration refers to the measurements used in the experiment. All
measurements were held constant across countries. A 5-point Likert scale was
used to measure the perceptual questions and U.S. dollars were used to present
the financial information in the experiment.

**Stakeholder Scale**

**Construct Equivalence Assessment**

The survey contained in Part C of the experiment contains six questions
that comprise the stakeholder scale that were designed to measure the
participants’ beliefs on the relevant stakeholders of a corporation, the stakeholder
construct. In cross-national experimental research construct equivalence should
be assessed to determine if the model being tested is measuring the same
constructs across countries. In order to assess measurement equivalence in
this experiment optimal scaling, a form of factor analysis, was conducted to find
the nonlinear scale values of the response categories (strongly disagree to
strongly agree) for the six stakeholder items that improved the multiple-
correlation coefficient for predicting stakeholder beliefs. This methodology is
recommended by Mullen (1995), Shen and Lai (1998), and Batista-Foguet et al.
(2004) for use in assessing measurement equivalence in cross-national
research.
The component loadings on the stakeholder beliefs construct for each of the six items in the stakeholder scale are presented for each country in Table 2. These component loadings represent the correlation between the stakeholder construct and stakeholder scale item. As shown in Table 2 the component loadings are not identical across countries for each scale item as suggested by Singh (1995) for establishing measurement equivalence. However, the component loadings range between .426 and .877 with 79% of the loadings above .55. The strength of the loadings across all countries in the presence of the small sample sizes indicates an adequate measurement model and construct equivalence.

*Insert Table 2 about here.*

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

**Stakeholder Scale Score**

The stakeholder scale score (stakeholder score) is the summation of the responses to the six, 5-point Likert scaled questions on the survey. Descriptive statistics (mean, standard deviation, maximum, and minimum) and Cronbach’s alpha were calculated for the stakeholder scores for each country. As shown in Table 3 the mean values of the stakeholder scores appear to be consistent
across countries. The reliability estimates are above .70 for the U.S. 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 U.S. (Pedhazur and Schmelkin, p. 109). Further analysis of the stakeholder score is provided below in the testing of H2.

*Insert Table 3 about here.*

**Hypotheses Testing**

Descriptive statistics (mean and standard deviation) on the amount invested in Company A before and after introduction of the CSD and the investment change are presented in Table 4 for each country. Company A is the company for which the participants were provided with additional disclosure in the form of CSD. A positive investment change indicates that there was an increase in investment in Company A after introduction of the CSD and a negative investment change means that there was a decrease in investment after introduction of CSD. As shown in Table 4, the participants’ mean investment in Company A, across all countries, increased as a result of the introduction of CSD for both the short-term and long-term horizons. Sweden has the largest mean change in investment on a short-term investment horizon followed by, in descending order, the U.S., France, and Japan. Sweden also had the largest mean change in investment on a long-term horizon followed by, in descending order, the U.S., Japan, and France. The short-term and the long-term changes in investment in Company A were used to measure the impact of positive CSD on the investment decision.
Tests of Hypothesis 1

To test hypothesis 1, a multivariate analysis of variance (MANOVA) model was performed for each country independently, hence country is not a factor in the model, using both short-term and long-term investment changes as dependent variables. The testing focused on the intercept to determine if it was significantly different from zero. As shown in Table 5, the intercept was significant ($p<.000$) for all countries. These results support $H_1$. Results of this analysis are presented in Table 5, Panel A.

Given the finding of significant intercepts in the MANOVA model analysis of variance (ANOVA) was performed for each country independently on the mean short-term and long-term investment changes to determine if one or both investment behavior variables are significant. The results of the ANOVA analyses are presented in Table 5, Panel B. As shown, the intercept is significant in the short-term model ($p<.05$) for, in order of significance, Sweden, France and the U.S., indicating that the short-term investment decision of the participants in these countries was affected by the CSD. The intercept was significant ($p> .000$) in the long-term model for each country in the following order of significance, Japan, Sweden, France, and the U.S.

Overall, the results of the tests of hypothesis 1 show that the participants in each country were significantly ($p<.000$) affected by the CSD, investing more in Company A after being provided the CSD. This finding held across all

Insert Table 4 about here.

Insert Table 5 about here.
countries for the long-term investment decision indicating that positive CSD did impact the investors in this experiment, regardless of the country of origin, when they were investing for a long-term horizon. Under a short-term investment horizon, the participants from Sweden, France, and the U.S. were willing to accept a lower return from the company that disclosed their ethical practices. These results imply that the stakeholder orientation has a greater impact when investors are using a short-term investment horizon.

**Test of Hypothesis 2**

Hypothesis 2 states that the impact of CSD on the investment decisions of individuals will be related to their score on the stakeholder scale. H2 was tested using a MANCOVA model, for each country independently, with the short-term and long-term investment changes as the dependent variables. Stakeholder score was included as the covariate in the model. Age, gender, and work experience were included as moderating variables. The results of this analyses, presented in Table 6, Panel A, reveal that the stakeholder score had a significant effect on the investment decisions of the participants from the U.S. (p<.10), Japan (p<.10), and Sweden (p<.05) indicating that the stakeholder score is related to the investment decision. In order to focus on the stakeholder score, the factor of interest in these analyses, a simplified MANCOVA model was constructed including only those variables that revealed a significant main effect in the primary model. The simplified model includes the short-term and long-term investment change as the dependent variables, the intercept, and the stakeholder score as a covariate. The results of the simplified model are
presented in Table 6, Panel B.

As shown in Panel B, stakeholder score is significant (p<.01) for the U.S. and Sweden in the simplified MANCOVA model. Given the finding of significance, follow up analyses using ANCOVA was performed on the mean short-term and long-term investment changes to determine if one or both investment variables are significant. The ANCOVAs were performed including only the stakeholder score as the covariate. The results of the ANCOVA analyses for each country are presented in Table 6, Panel B. As shown, stakeholder score was significant in the short-term model for the U.S. and Sweden at the p<.01 level and for Japan at the p<.10 level. In the long-term model, stakeholder score was significant for the U.S. and Sweden at the p<.01 level and for France at the p<.10 level. These results indicate that stakeholder beliefs had a significant effect on the investment behavior providing support for H2.

As a further test of the relationship between the participants’ investment behavior and their stakeholder score, a model was estimated for each country independently using ordinary least squares (OLS) regression. Specifically, individual OLS models were constructed for the dependent variables, short-term and long-term investment changes. In these models the dependent variables were regressed against the independent variables; stakeholder score, age, gender (dummy variable for female), and work experience. Age and work experience are categorical variables measured using ordered categories.
Collinearity was tested by examining the conditioning indices for the data matrix along with the variance inflation factor (VIF) for the models. These tests reveal moderate collinearity (conditioning indices were between 15 and 17). After considering collinearity and significance measures, the regressions were estimated with the gender variable only since this variable produced the best fit for the models.

Table 7 reports the regression results. The results for the U.S. and Sweden reveal that stakeholder score had a significant, positive coefficient (p<.01) for both the short-term and long-term models indicating that the higher the stakeholder score the larger, positive increase in investment in Company A as the result of CSD. The relationship was less significant for Japan and France. The stakeholder score coefficient for Japan was small but positive and significant at the p<.10 level in the short-term model only. The stakeholder score coefficient for France was small but positive and significant at the p<.10 level in the long-term model only. These results indicate that stakeholder beliefs, as measured by the stakeholder score, are related to investors’ reactions to positive CSD providing further support for H2.

Insert Table 7 about here.

These findings are consistent with the conceptual framework for this experiment. That is, a high score on the stakeholder scale, being interpreted as a strong stakeholder orientation, should be associated with a larger, positive mean change in investment in Company A, the company for which the positive CSD was provided.
**Test of Hypothesis 3**

The third hypothesis (H₃) posits that the country of the investor will affect the impact of CSD on the investment decision. Conceptually, if culture affects stakeholder beliefs then there should be a cross-country difference in the impact of CSD on the investment decision between countries that have significantly different cultures. A MANCOVA model with the short-term and long-term investment changes as the dependent variables, including country as a factor, was used to test this hypothesis. Age, gender, and work experience were included as moderating variables. Adjustment was made for the stakeholder score. Country is the factor of interest in this analysis. If the country variable has a significant effect in these models, H₃ will be supported.

The results of the test of H₃ are presented in Table 8. In the primary MANCOVA model, country was significant at the p<.05 level indicating that there was a significant change in investment behavior that was affected by the country of the participants. This result supports H₃.

*Insert Table 8 about here.*

Given the finding of a significant country effect in the MANCOVA model, a simplified MANCOVA model was constructed including only those variables that revealed a significant main effect in the primary model. The results of the simplified MANCOVA are presented in Table 8. As shown in this table, country is significant at the p<.01 level indicating a cross-country difference in investors’ reactions to positive CSD. The results presented in Table 8 also reveal that the stakeholder score was significant (p<.01) for both the primary and simplified
models indicating a relationship between the stakeholder score and investment changes consistent with the results of H2.

Follow up analysis of the investment behavior variables was conducted using ANCOVA. As shown in Table 8, the results reveal that the country factor did have a significant effect in the short-term model (p<.01) and long-term model (p<.10). These results indicate that the cross-country difference in investors’ reactions to positive CSD is most pronounced on a short-term investment horizon. Stakeholder score was also significant (p<.01) in both the short-term and long-term ANCOVA models. These findings support H3, as hypothesized the country of the investor does affect the impact of CSD on the investment decision.

**Test of Hypothesis 4**

Hypothesis 4 uses the stakeholder concept to posit a direction for the relationship between culture and the investment decision stating that the impact of CSD on the investment decisions of individuals from countries that emphasize stakeholder capitalism (low M/F index values) will be positive and greater than the impact on the investment decisions of participants from countries that emphasize shareholder capitalism (high M/F index values). To test this hypothesis the investment behavior of the participants from Japan and Sweden, representing the extreme ends of the M/F index scale, was examined. Japan represents the country with the strongest shareholder orientation and Sweden represents the country with the strongest stakeholder orientation. The mean short-term investment changes for Sweden and for Japan were 23.2 and 3.3,
respectively, and the mean long-term investment changes for Sweden and Japan were 26.7 and 18.6, respectively (Table 4).

The results from the within-country analysis of investment behavior in the tests of $H_1$ presented in Table 5, Panel A, reveal that the participants in Sweden were significantly affected by the CSD, investing more in Company A after being provided the CSD, and that CSD had no significant effect on the investment behavior of the participants from Japan. These findings held for the simplified MANCOVA model and the short-term and long-term ANCOVA models (Table 5, Panel B). These results indicate that there is a significant difference between Sweden and Japan in the impact of CSD on the investment behavior supporting $H_4$. As an additional robustness test, the simplified MANCOVA model described earlier in the test of hypothesis 3, was calculated including the data for Sweden and Japan only in the country factor.

As anticipated, in the simplified MANCOVA model, country had a significant ($p<.01$) effect on investment behavior signifying a significant difference in the impact of CSD on the investment decisions of participants from Sweden and Japan. Stakeholder score was also significant ($p<.01$) consistent with the findings from the previous models. These results are presented in Table 9.

*Insert Table 9 about here.*

Given the finding of significance in the MANCOVA model, separate ANCOVAs were performed on the short-term and long-term investment change variables following the simplified model design. As shown in Table 9, the significant ($p<.01$) difference between Sweden and Japan occurred in the short-
term investment change implying that stakeholder beliefs affect short-term investment behavior.

Conclusions and Limitations

Previous cross-national research on corporate social disclosure (CSD) has found significant variations in CSD across countries. The theoretical reasons for these observed differences have not been fully developed. This study examined this phenomenon from the perspective of the investors’ information needs to determine if the perceived relevance of CSD differs systematically across countries. This study used a cross-national experimental design to explore the relationship between CSD and culture and to seek a theoretical basis for understanding this relationship.

Overall, the results of this experiment found that there are systematic cross-country differences in the investment response to CSD and this response can be predicted using the stakeholder concept. Thus, as hypothesized culture influences investors’ beliefs on the relevant stakeholders of a corporation, these beliefs, in turn, influence investment behavior. These results support previous research (Gray, 1988; Perera, 1989) that has identified culture as having an influence on accounting practices. As Perera (1989) succinctly stated, “although the technical aspect of accounting is less culture dependent than the human aspect because the two interact, accounting cannot be culture free” (p.43).

From a theoretical perspective, the results of this study find support for the application of Hofstede’s masculinity dimension within international accounting research specifically as applied to voluntary disclosures. These findings extend
Gray’s (1988) work on the relevance of Hofstede’s cultural dimensions in an accounting context. These results may be useful to researchers examining the influence of culture on financial reporting.

By examining the effect of CSD in a cross-national study, this research also furthered our understanding of the influence of culture on investor information needs which should be useful to standard setters and multi-national firms in establishing disclosure practices. Finally, this study provided evidence linking the differences in investors’ information needs to the stakeholder concept furthering our understanding of the stakeholder theory by extending the concept within an accounting context in a cross-national setting.

The findings from this study should be interpreted with consideration for the following limitations. First, the experiment in this study was based on the annual report of a U.S. domiciled multinational company. Although the company was not identified, U.S. dollars were used to present the financial information. Given current international conflicts, the non-U.S. participants in the experiment may have had pre-existing beliefs about the U.S. which may have influenced their view of U.S. corporations and affected their investment response.

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 possibilities of misinterpretation of the post-experimental questionnaire particularly the stakeholder construct questions. This may have contributed to the lack of significant differences in the stakeholder scores across countries.
Third, the experiment was developed and pre-tested in the U.S. The cultural norms and values from the U.S. may have affected the design of the experiment and may be reflected in the phrasing of the questions developed to measure the stakeholder construct. Additional cross-country testing would have been desirable to ameliorate this concern. This concern is mitigated by the results of the manipulation check question which showed that across all countries over 90% of the participants appeared to understand the experimental treatment.

Fourth, the country of birth of the participants in the sample may have been different than the country in which they were living and attending graduate school. The results may have been stronger if the participants had been limited to those born and residing in the countries selected for the sample.

Fifth, there are sample specific concerns. The French sample was composed of younger students with 94% of the participants in the 20 to 29 year age range as compared to 55%, 66%, and 61% of the Swedish, Japanese, and U.S. students, respectively, in this age category. Although age was included as a moderating variable in the analysis the impact cannot be completely controlled for statistically. In addition, the participants in this experiment were business students. Individuals choosing to pursue a business degree may tend to have more of a shareholder orientation than others in their country. These sample specific issues may have contributed to the lack of expected results for the stakeholder scale in France.

Notwithstanding these limitations, the findings of this study provide significant insight into the cross-country differences in the perceived relevance of
CSD to investors. In addition, by substantiating the link between CSD and the stakeholder concept this study adds to both the stakeholder literature and the CSD literature from an international perspective.
Figure 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.

<table>
<thead>
<tr>
<th></th>
<th>U.S. n=54</th>
<th>Japan n=68</th>
<th>Sweden n=33</th>
<th>France n=36</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>65%</td>
<td>78%</td>
<td>79%</td>
<td>53%</td>
</tr>
<tr>
<td>Female</td>
<td>35%</td>
<td>22%</td>
<td>21%</td>
<td>47%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 – 29</td>
<td>61%</td>
<td>66%</td>
<td>55%</td>
<td>94%</td>
</tr>
<tr>
<td>30 – 39</td>
<td>32%</td>
<td>16%</td>
<td>42%</td>
<td>0</td>
</tr>
<tr>
<td>40 – 49</td>
<td>7%</td>
<td>9%</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td>50 or older</td>
<td>0</td>
<td>9%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Work experience</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>8%</td>
<td>44%</td>
<td>12%</td>
<td>81%</td>
</tr>
<tr>
<td>1 to 3 years</td>
<td>22%</td>
<td>13%</td>
<td>21%</td>
<td>13%</td>
</tr>
<tr>
<td>4 to 5 years</td>
<td>22%</td>
<td>12%</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>6 to 10 years</td>
<td>22%</td>
<td>12%</td>
<td>31%</td>
<td>6%</td>
</tr>
<tr>
<td>More than 10 years</td>
<td>26%</td>
<td>19%</td>
<td>12%</td>
<td>0</td>
</tr>
</tbody>
</table>
TABLE 2
STAKEHOLDER BELIEFS CONSTRUCT COMPONENT LOADINGS

This table presents the component loadings calculated using categorical principal components analysis for the six items measuring the stakeholder beliefs construct for each country.

<table>
<thead>
<tr>
<th></th>
<th>U.S. (n=54)</th>
<th>Japan (n=68)</th>
<th>Sweden (n=33)</th>
<th>France (n=35)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q8: SR policy influence</td>
<td>.762</td>
<td>.760</td>
<td>.743</td>
<td>.707</td>
</tr>
<tr>
<td>Q9: Share with Stake</td>
<td>.561</td>
<td>.550</td>
<td>.509</td>
<td>.645</td>
</tr>
<tr>
<td>Q10: Max share wealth (recoded)</td>
<td>.563</td>
<td>.568</td>
<td>.437</td>
<td>.804</td>
</tr>
<tr>
<td>Q11: Respond to Stake</td>
<td>.549</td>
<td>.426</td>
<td>.802</td>
<td>.426</td>
</tr>
<tr>
<td>Q12: Mutual fund policy</td>
<td>.816</td>
<td>.599</td>
<td>.769</td>
<td>.775</td>
</tr>
<tr>
<td>Q13: Accept lower return</td>
<td>.823</td>
<td>.746</td>
<td>.877</td>
<td>.864</td>
</tr>
<tr>
<td>Variance accounted for by the construct</td>
<td>47.65%</td>
<td>38.31%</td>
<td>50.08%</td>
<td>51.53%</td>
</tr>
</tbody>
</table>

The scale is anchored with 1 = strongly disagree and 5 = strongly agree. The questions are as follows:
Q8 SR policy influence: A corporation’s proactive policy on social responsibility, such as labor and environmental practices, would have a positive influence on my decision to invest in that corporation.
Q9 Share with Stake: It is the responsibility of a corporation to share the benefits it earns and the risks it creates from corporate activities among all people that are affected by its operations.
Q10 Max share wealth (recoded): A corporation’s primary purpose is to maximize shareholder wealth.
Q11 Respond to Stake: Corporations have a responsibility to consider and respond to the concerns of individuals or groups that are affected by their operations.
Q12 Mutual fund policy: 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.
Q13 Accept lower return: I would be willing to accept a lower return on my investment in a company if that company maintained a proactive social responsibility policy.

TABLE 3
STAKEHOLDER SCORE - DESCRIPTIVE STATISTICS

This table presents the mean, standard deviation, minimum, maximum statistics and Cronbach’s alpha on the stakeholder score by country.

<table>
<thead>
<tr>
<th></th>
<th>U.S. (n=54)</th>
<th>Japan (n=68)</th>
<th>Sweden (n=33)</th>
<th>France (n=36)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>20.2</td>
<td>21.9</td>
<td>21.3</td>
<td>21.2</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>3.9</td>
<td>3.2</td>
<td>4.1</td>
<td>3.3</td>
</tr>
<tr>
<td>Maximum score</td>
<td>28.0</td>
<td>28.0</td>
<td>29.0</td>
<td>29.0</td>
</tr>
<tr>
<td>Minimum score</td>
<td>9.0</td>
<td>14.0</td>
<td>13.0</td>
<td>16.0</td>
</tr>
<tr>
<td>Cronbach’s Alpha</td>
<td>.734</td>
<td>.603</td>
<td>.738</td>
<td>.641</td>
</tr>
</tbody>
</table>
### TABLE 4
INVESTMENT BEHAVIOR-DESCRIPTIVE STATISTICS

This table presents the mean and standard deviation, in parenthesis, of the amount invested in Company A (CSD company) and the investment change \(^1\) by country (000’s omitted).

<table>
<thead>
<tr>
<th></th>
<th>U.S. (n=54)</th>
<th>Japan (n=68)</th>
<th>Sweden (n=33)</th>
<th>France (n= 36)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short-term</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part A</td>
<td>30 (20)</td>
<td>30 (26)</td>
<td>18 (17)</td>
<td>28 (17)</td>
</tr>
<tr>
<td>Part B</td>
<td>38 (26)</td>
<td>34 (22)</td>
<td>42 (35)</td>
<td>36 (23)</td>
</tr>
<tr>
<td><strong>Long-term</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part A</td>
<td>37 (20)</td>
<td>44 (22)</td>
<td>35 (21)</td>
<td>45 (13)</td>
</tr>
<tr>
<td>Part B</td>
<td>55 (26)</td>
<td>64 (24)</td>
<td>62 (32)</td>
<td>57 (20)</td>
</tr>
</tbody>
</table>

**Investment change** - The mean and standard deviation, in parenthesis, for the short-term and long-term investment change.

<table>
<thead>
<tr>
<th></th>
<th>Short-term</th>
<th>Long-term</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8.3 (23.2)</td>
<td>19.3 (27.3)</td>
</tr>
</tbody>
</table>

\(^1\) 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.
### TABLE 5
MANOVA TEST OF WITHIN-COUNTRY INVESTMENT CHANGES

**Panel A: Results of the MANOVA model.**
This panel presents the p values and the values for the intercept from the MANOVA performed jointly on the short-term and long-term investment changes for each country independently.

<table>
<thead>
<tr>
<th>Country</th>
<th>Intercept</th>
<th>Intercept</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. (n=53)</td>
<td>.000</td>
<td>(.339)</td>
</tr>
<tr>
<td>Japan (n=68)</td>
<td>.000</td>
<td>(.397)</td>
</tr>
<tr>
<td>Sweden (n=33)</td>
<td>.000</td>
<td>(.509)</td>
</tr>
<tr>
<td>France (n=32)</td>
<td>.000</td>
<td>(.381)</td>
</tr>
</tbody>
</table>

**Panel B: Results of the short-term and long-term ANOVA models.**
This panel presents the p values for the intercepts from the ANOVAs performed separately on the short-term and long-term investment changes for each country independently.

<table>
<thead>
<tr>
<th>Country</th>
<th>Short-term</th>
<th>Long-term</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>0.012356</td>
<td>3.87E-06</td>
</tr>
<tr>
<td>Japan</td>
<td>.400794</td>
<td>1.2E-06</td>
</tr>
<tr>
<td>Sweden</td>
<td>.000351</td>
<td>2.61E-06</td>
</tr>
<tr>
<td>France</td>
<td>.00563</td>
<td>.000765</td>
</tr>
</tbody>
</table>

**,** *** denotes significant at p<.05, and p<.01, respectively.
### TABLE 6  
TEST OF THE RELATIONSHIP BETWEEN STAKEHOLDER SCORE 
AND INVESTMENT CHANGES

#### Panel A: Results of the MANCOVA model.
This panel presents the p values (the value for the intercept and the coefficient for the stakeholder score variables are presented in parenthesis) from the MANCOVA performed jointly on the short-term and long-term investment changes for each country independently. Age, gender, and work experience (Exp.) were treated as fixed factors. Adjustment was made for the stakeholder score.

<table>
<thead>
<tr>
<th>Country</th>
<th>Intercept</th>
<th>Stakeholder score</th>
<th>Gender (Female)</th>
<th>Age</th>
<th>Exp.</th>
<th>Age*Female</th>
<th>Exp.*Female</th>
<th>Age*Exp</th>
<th>Age<em>Exp</em>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. (n=53)</td>
<td>.297 (.071)</td>
<td>.057* (.159)</td>
<td>.953</td>
<td>.586</td>
<td>.588</td>
<td>.096* (.759)</td>
<td>.422</td>
<td>.037**</td>
<td></td>
</tr>
<tr>
<td>Japan (n=68)</td>
<td>.260 (.070)</td>
<td>.092* (.121)</td>
<td>.465</td>
<td>.463</td>
<td>.192</td>
<td>N/C</td>
<td>N/C</td>
<td>N/C</td>
<td></td>
</tr>
<tr>
<td>Sweden (n=33)</td>
<td>.065* (.262)</td>
<td>.013** (.385)</td>
<td>.474</td>
<td>.851</td>
<td>.575</td>
<td>N/C</td>
<td>N/C</td>
<td>N/C</td>
<td></td>
</tr>
<tr>
<td>France (n=32)</td>
<td>.367 (.087)</td>
<td>.103 (.187)</td>
<td>.600</td>
<td>N/C</td>
<td>N/C</td>
<td>N/C</td>
<td>N/C</td>
<td>N/C</td>
<td></td>
</tr>
</tbody>
</table>

#### Panel B: Results of the simplified MANCOVA model and short-term and long-term ANCOVA models.
This panel presents the p values 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. The value for the intercept and the coefficient for the stakeholder score variables are presented in parenthesis for the MANCOVA models. The adjusted R squared is also presented for the ANCOVA models.

<table>
<thead>
<tr>
<th>Country</th>
<th>MANCOVA</th>
<th>Short-term ANCOVA</th>
<th>Long-term ANCOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>.009 (.172)</td>
<td>.003</td>
<td>.444</td>
</tr>
<tr>
<td>Stakeholder score</td>
<td>.299 (.045)</td>
<td>.029</td>
<td>.835</td>
</tr>
<tr>
<td>Adjusted R squared</td>
<td>(.255)</td>
<td>.196</td>
<td>.147</td>
</tr>
</tbody>
</table>

---

* ** *** denotes significant at p<.10, p<.05 and p<.01, respectively.
N/C= Not computed.
This table reports the results of the following regression model:
\[ \text{Inv} \Delta = \beta_1 + \beta_2 \text{Stake} + \beta_3 \text{Female} \]

Where: \( \text{Inv} \Delta \) is the short-term investment change in the short-term model and the long-term investment change in the long-term model,
- \( \beta_1 \) is the intercept,
- \( \beta_2 \) is the coefficient for stakeholder score, and
- \( \beta_3 \) is the coefficient if the participant is female.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>U.S. Coefficients</th>
<th>Japan Coefficients</th>
<th>Sweden Coefficients</th>
<th>France Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short-term model (DV: Short-term investment change)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-56.72 (.001)***</td>
<td>-36.18 (.108)</td>
<td>-108.94 (.005)***</td>
<td>-7.50 (.689)</td>
</tr>
<tr>
<td>Stakeholder Score</td>
<td>2.94 (.000)***</td>
<td>1.70 (.094)*</td>
<td>5.72 (.000)***</td>
<td>.71 (.412)</td>
</tr>
<tr>
<td>Female</td>
<td>8.12 (.188)</td>
<td>2.99 (.681)</td>
<td>13.23 (.325)</td>
<td>-.91 (.871)</td>
</tr>
<tr>
<td>Adjusted R squared</td>
<td></td>
<td>.21</td>
<td>.36</td>
<td>-.04</td>
</tr>
<tr>
<td><strong>Long-term model (DV: Long-term investment change)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-49.44 (.018)**</td>
<td>3.42 (.884)</td>
<td>-75.53 (.023)**</td>
<td>-30.06 (.174)</td>
</tr>
<tr>
<td>Stakeholder Score</td>
<td>3.07 (.001)***</td>
<td>.52 (.618)</td>
<td>4.03 (.002)***</td>
<td>1.79 (.082)*</td>
</tr>
<tr>
<td>Female</td>
<td>9.92 (.183)</td>
<td>4.98 (.542)</td>
<td>20.84 (.087)*</td>
<td>7.83 (.237)</td>
</tr>
<tr>
<td>Adjusted R squared</td>
<td>.16</td>
<td>.01</td>
<td>.23</td>
<td>.08</td>
</tr>
</tbody>
</table>

*, **, *** denotes significant at \( p < .10 \), \( p < .05 \), and \( p < .01 \), respectively.
**TABLE 8**

CROSS-COUNTRY TEST OF INVESTMENT CHANGES

This table presents the p values (the value for the intercept and the coefficient for the stakeholder score variables are presented in parenthesis) and adjusted R squared from the MANCOVA and simplified 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 and excluded in the simplified MANCOVA. Adjustment was made for the stakeholder score. The simplified short-term and long-term ANCOVAs are also presented.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>MANCOVA (DVs: Long-term and short-term inv. change) (n=170)</th>
<th>Simplified MANCOVA (n=174)</th>
<th>Short-term ANCOVA (n=174)</th>
<th>Long-term ANCOVA (n=174)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>.007*** (.083)</td>
<td>1.61241E-05*** (.123)</td>
<td>1.32768E-05***</td>
<td>.019**</td>
</tr>
<tr>
<td>Country</td>
<td>.044**</td>
<td>8.26E-04***</td>
<td>3.87852E-04***</td>
<td>.071*</td>
</tr>
<tr>
<td>Stakeholder score</td>
<td>.000*** (.179)</td>
<td>4.10184E-09*** (.205)</td>
<td>1.00077E-07***</td>
<td>3.92376E-05***</td>
</tr>
<tr>
<td>Age</td>
<td>.758</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.708</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exp.</td>
<td>.337</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender*Age</td>
<td>.114</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender*Exp</td>
<td>.864</td>
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<tr>
<td>Age*Exp</td>
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<tr>
<td>Gender*Country</td>
<td>.964</td>
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<td>Exp.*Country</td>
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<tr>
<td>Age*Country</td>
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<tr>
<td>Gender*Exp.*Country</td>
<td>.989</td>
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<tr>
<td>Gender<em>Age</em>Country</td>
<td>N/C</td>
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<tr>
<td>Age<em>Exp</em>Country</td>
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<tr>
<td>Age*Exp.*Gender</td>
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<td>Gender<em>Age</em>Exp.*Country</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Adjusted R squared</td>
<td>.202</td>
<td></td>
<td>.104</td>
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</tbody>
</table>

* *, **, *** denotes significant at p<.10, p<.05, and p<.01, respectively.

"n" represents the number of participants who completed both Part A and Part B of the experiment.
This table presents the p values from the MANCOVA performed on the short-term and long-term investment changes and the ANCOVAs performed on the short-term investment change and long-term investment change separately. Country (Sweden and Japan) is the dependent variable (DV). Adjustment was made for the stakeholder score.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Simplified MANCOVA (n=87)</th>
<th>Short-term ANCOVA (n=87)</th>
<th>Long-term ANCOVA (n=87)</th>
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<tbody>
<tr>
<td>Intercept</td>
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<td>.001***</td>
<td>.349</td>
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<td>Country</td>
<td>.000***</td>
<td>.000***</td>
<td>.105</td>
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<tr>
<td>Stakeholder score</td>
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<td>.023**</td>
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<tr>
<td>Adjusted R squared</td>
<td>.256</td>
<td>.059</td>
<td></td>
</tr>
</tbody>
</table>

** *** denotes significant at p<.05 and p<.01, respectively.
REFERENCES


of Stakeholder Management.” *Principles of Stakeholder Management.*
Toronto, Canada: The Clarkson Centre for Business Ethics.


Appendix I
Participating Professors and their affiliated Universities

United States
Professor Rasoul H. Tondkar  Virginia Commonwealth University
Professor Jayaraman Vijayakumar  Virginia Commonwealth University
Professor Robert L. Andrews  Virginia Commonwealth University

Japan
Professor Takemi Ono  Tokyo Keizai University
Professor D. Fujimura  Hiroshima Shudo University
Professor Masayoshi Noguchi  Hokusei Gakuen University
Professor Yoshinao Matsumoto  Kansai University
Professor Fumio Naito  Kobe University
Professor Kazuo Hiramatsu  Kwansei Gakuin University
Professor Takatoshi Hayashi  Kwansei Gakuin University

Sweden
Professor Magnus Mahring  Stockholm School of Economics

France
Professor Stéphane Trébucq  University of Bordeaux