VOLUNTARY DISCLOSURE OF NEGATIVE INFORMATION IN CORPORATE COMMUNICATION

CAN COMPANIES BENEFIT FROM DISCLOSING THEIR ETHICAL INFRACTIONS?

IPEK AKTAR

TESI DOCTORAL UPF / 2011

DIRECTOR DE LA TESI

Dr. Marc Le Menestrel (Universitat Pompeu Fabra)

UNIVERSITAT POMPEU FABRA

Dipòsit Legal:

ISBN:

To my mothers

Kıvanç and Gülenç

Acknowledgements

To begin with, I would like to thank my advisor, Marc Le Menestrel for his continuous support and contribution to my thesis during the 5 years of my PhD program. Working with him has been a memorable experience that will stay with me throughout my life. In particular, it has been a great pleasure to teach with him the course International Business Policy - A Business Ethics Perspective. At the end of each academic year, I felt the course gave students the essential capabilities to evaluate continuously the consequences of their decisions and actions in both their business and personal lives. I feel very privileged and proud to be a part of this teaching.

I owe my special thanks to Michael Bashshur and Gert Cornelissen who enthusiastically have always helped me through any problem or academic bottleneck that I had. I can't emphasize enough how much their guidance strengthened me in my studies and personal life. I'm additionally grateful for all the teachings Michael Bashshur shared with me while I assisted with his Organizational Behavior course. It has been a great pleasure to work with him.

I also thank Vicente Ortun, Nicolas Andre, and Umut Kerimoğlu for kindly sharing their knowledge about pharmaceutical companies and medicine with me. I wouldn't have been able to write my first study without their guidance and industry insight. In addition, I would like to express my gratitude to Joaquim Barbera for his time and sincerity, whose conversations have deeply influenced my studies and me personally. It's been a great pleasure to know him as well. Also, I thank Rosemarie Nagel for kindly providing a research funds allotment for my studies.

In addition, I owe my thanks to a group of very special people, all of whom I feel privileged to know. I thank Sinan Yaman for always believing in me. His

encouragement and support are invaluable. For their unconditional support and love during my PhD program, I can't thank enough Hale Soyer, Mehmet Uğur Soyer, Hülya Çetinor and Levent Çetinor. They always made me feel a part of their families. To express my gratitude, I can only say that I love you all very much.

Also, I would like to thank my friends. I wouldn't have been able to write this dissertation without their support. My former PhD colleagues, now Doctors, Julian Rode, Ozan Ekşi, Arturo Ormeno, Zeynep Gürgüç and, especially, Başak Güneş have always helped me whenever I needed it. My colleague and friend Xavier Palacios and Elda N De Gracia have always been there for me and made me feel at home in Barcelona. My friends Alara Tüfekçioğlu, Pınar Tor, Beray Akovalıgil, Esra Kayserili, Engin Evrenos, Cemal Erksun, İhsan Günev, Umut Kerimoğlu, Ebru Kerimoğlu, Neelum Khalsa, Pelin Gündoğan, Nihan Sualp, and Sare Bayat have always managed to support me through any ups and downs of my PhD even though they were far away.

My love, Emre Soyer, has always been there for me. I can't thank enough for his love, music, support and understanding. All I can say is 'Senza di te sono oscuro, M'illumini d'immenso'.

There is no doubt about my family's support and sacrifices, which ensured the sense of success and accomplishment I enjoy today. I will always be grateful for their support. I thank Kıvanç Aktar, Gülenç Yüksel, Nedim Aktar, Hande Tüfekçioğlu and Dikmen Aktar for all they've done for me.

I can only hope that with my friendship and these essays, each one of you, too, will feel that your efforts paid off in many worthwhile long-lasting ways.

Abstract

This thesis builds on the literature of corporate social responsibility (CSR) communication. The following three chapters study the potential impacts of disclosing voluntarily negative information in a company's own CSR communication within the contexts of pharmaceutical, textile and chocolate companies, respectively. Incorporating survey and experimental methodologies, these studies aim to help identify effective solutions for ethical issues by revealing the appropriate contexts in which companies can discuss them transparently and, thus, be rewarded for responding and acting in good faith and due diligence. Our results suggest that companies might benefit from voluntary disclosure of ethical issues if they also intend to disclose their specific actions for eliminating such infractions. Additionally, we highlight the role of public awareness in how negative information by the relevant stakeholders is evaluated. These studies reinforce the concept that acknowledging ethical issues would lead to higher levels of ethical behavior in business.

Resumen

La siguiente tesis se basa en la literatura sobre comunicación de responsabilidad social corporativa (RSC) de empresa. Se analizan los posibles efectos de divulgación voluntaria de información negativa en la comunicación (RSC) en contextos de empresas farmacéuticas, textiles y de chocolate. Estos estudios tienen como objetivo ayudar a identificar soluciones efectivas a cuestiones éticas al revelar los contextos donde las empresas puedan debatir de manera transparente, y ser recompensadas por responder y actuar de buena fe y con diligencia. Los resultados sugieren que las empresas pueden beneficiarse de la divulgación voluntaria de aspectos éticos negativos si también divulgan sus acciones específicas para la eliminación de tales infracciones. Además, se destaca el papel de la sensibilización del público sobre como la información negativa se evalúa por las partes interesadas. Estos estudios refuerzan la idea de que reconocer problemas éticos conduce a niveles más altos de comportamiento ético en el mundo empresarial.

Preface

The objective of this dissertation is to reveal the appropriate contexts in which companies can be transparent and voluntarily disclose ethical and social problems and be rewarded for responding and acting in good faith and due diligence. If companies are more transparent about responding to questions and concerns regarding potentially controversial unethical aspects of their activities, the consequential problems are more likely to be solved closer to the mutual benefit of stakeholder concerns and strategic business goals. However, companies often are tempted to hesitate revealing negative information about themselves because of the possible negative (uncontrollable) consequences such disclosure may generate. In examining possible positive consequences of voluntary disclosure of unethical actions, the following studies aim to help identify the incentive mechanisms for companies to become more transparent and, hence, promote ethical behavior that will be perceived favorably by consumers who are increasingly sensitized to ethical consumerism. Before moving with a discussion of the hypotheses and methodology involved with the studies, a brief overview about Corporate Social Responsibility (CSR) communication is merited to the study's potential contribution within the existing literature.

CSR, which occupies a significantly growing place in the agendas of business and consumers, has been defined fundamentally as 'a commitment to improve societal well being through discretionary business practices and contributions of corporate resources' (Kotler & Lee 2005). Companies have steadily stepped up their investment in CSR activities and communicate, particularly in tactics designed to generate a positive, timely return on investment (Du, Bhattacharya & Sen 2010). A recent survey by KPMG (2008) reveals that 80% of the 250 largest companies worldwide had published an annual CSR report compared to 50% just three years before (in 2005). In parallel, individual engagement in ethical consumption also has

been increasing consistently (Cone 2007). Earlier studies also reveal that CSR activities might benefit the company in broader terms applicable to a wider spectrum of stakeholders, including, but not limited to, consumer loyalty, positive word of mouth, willingness to pay a price premium, the appeal of employment, and the opportunity to become an investor in a particular company (Du, Bhattacharya & Sen 2007; Sen, Bhattacharya & Korschun 2006). However, companies face two major challenges that hinder the effectiveness and the positive return that can be achieved through CSR communication. First challenge is stakeholder low awareness in which stakeholder can refer to employees, investors, and consumers of a company as well as others indirectly related to the company (i.e., regulators, media, citizen activists, nonprofit organisations, etc.) (Alsop 2005; Bhattacharya, Sen & Korschun 2008; Du, Bhattacharya & Sen 2010; Du, Bhattacharya & Sen 2007; Sen, Bhattacharya & Korschun 2006). The second challenge is stakeholder skepticism, which manifests itself in unfavorable reactions and responses to a company's CSR efforts. Stakeholders likely will react positively towards CSR communication to which they attribute intrinsic motivation (i.e., genuine concern for the relevant social issue) that is relatively balanced against extrinsic self-serving motivation (i.e., maximization of profit) (Yoon, Gurhan-Canli & Schwarz 2006). Similarly, recent studies conclude that stakeholders are likely to give even more positive reactions to mixed CSR motives, simultaneously extrinsic and intrinsic in nature (Ellen, Webb & Mohr 2006; Sen, Bhattacharya & Korschun 2006). Forehand & Grier (2003) conclude that what leads to stakeholder skepticism and negative reaction is not the extrinsic motivation of a company, but the pervasive feeling that the corporate message is deceptive and/or manipulative. More simply, stakeholders, particularly enlightened about the need for ethical and socially responsible business practices, will cue in on any discrepancy between perceived substantive company motives and those that attempt to be merely symbolic gestures intended to soothe broader social concerns.

Given these primary challenges, companies are encouraged to consider comprehensively the effect of their communication's (1) content, (2) message channel, and (3) company- and investor-specific factors on minimizing stakeholder skepticism and increasing their awareness as pretexts for maximizing favorable CSR attributions (Du, Bhattacharya & Sen 2010).

With regard to content in CSR communication, messages that contain information about a company's commitment to CSR activities (e.g., amount of input, duration, consistency of input) as well as the potential impact of the input or CSR activities cue appropriate signals to stakeholders about how to frame perceptions about a company's motives (Du, Bhattacharya & Sen 2009; Dwyer, Schurr & Oh 1987; Webb & Mohr 1998). In other words, mixed CSR motives lead to the most positive return because they reflect ethically responsible and pragmatically feasible business objectives. Most consumers intuitively believe that a company's motivation can hardly be expected to be just intrinsic so, therefore, by stating explicitly the benefits of CSR activities for both society and the company strengthens the credibility of the message (Ellen, Webb & Mohr 2006; Forehand & Grier 2003; Porter & Kramer 2006). Also, with regard to message content, contradictory results can be produced in terms of the perceived fit and congruence between CSR activities and a company's business performance. Several studies indicate that high-fit CSR activities that are logically related with the core business enhance positive stakeholder attributions and, therefore, such a relationship should be clearly present in the message (Cone 2007; Haley 1996; Menon & Kahn 2003; Simons & Becker-Olsen 2006). On the other hand, under certain conditions, it is also found that low-fit CSR activities might be perceived as being sincere which, in turn, increases the effectiveness of that CSR communication (Bloom et al. 2006; Menon & Kahn 2003).

Regarding message channel, companies have numerous platforms to convey their CSR communications, including official documents (e.g., annual reports, press releases), corporate website, magazines, billboards, TV advertisements and product packaging and labeling (Du, Bhattacharya & Sen 2010). The literature generally classifies these channels into two groups as company-controlled CSR channels and those that operate partially or totally independent from the company (e.g., media coverage, monitoring groups, consumer blogs, nonprofit organizations). Several studies reveal that the message channels that are partially or, even better, totally independent from company control reinforce the potential credibility of the message (Simmons and Becker-Olsen 2006; Szykman, Bloom & Blazing 2004; Yoon, Gurhan-Canli & Schwarz 2006). Apart from these categorizations, informal message channels – i.e., 'word of mouth' as communicated by employees and consumers – are as credible as traditional formal channels and are growing in importance with the expansion of social media networks such as Facebook (Dawkins 2004; Du, Bhattacharya & Sen 2010). These developments in immediately accessible digital media encourage companies to find innovative ways in integrating both employees and consumers into their CSR activities as much as possible.

In addition to message content and channels, the literature also has led to a focus on context-specific factors that impact and moderate the effectiveness of CSR communications. These can be classified in two groups: (1) company-specific factors (e.g., industry, corporate reputation and positioning) which affect primarily company-controlled communications and (2) stakeholder specific factors (e.g., stakeholder support, issue support, and social value orientation) (Du, Bhattacharya & Sen 2010). While a company's good reputation can reinforce the credibility of the message, a poor reputation can, as expected, damage message credibility (Gardberg & Fombrun 2002; Yoon, Gurhan-Canli & Schwarz 2006). For companies with a neutral ethical reputation, they might realize a greater magnitude in benefits from CSR communication than companies with a positive reputation (Strahilevitz 2003).

In addition, the industry in which a company operates can improve or suppress the beneficial effect of credible CSR messages. For instance oil and tobacco industries are typically associated with a higher degree of public skepticism based on their history (Du, Bhattacharya & Sen 2007). Also, a company's reliance on its CSR activities to position itself in the industry and in its perception among consumers will enhance the beneficial impact of its CSR communication with more reliance on such positioning leading to higher credibility (Du, Bhattacharya & Sen 2007). Stakeholders also can be classified (Dawkins 2004) into general groups of (1) opinion-leader audiences (e.g., investors, business press, legislators, non-governmental organizations (NGOs), and employees) and (2) general public (e.g., consumers, citizens, residents) based on their expectations of businesses and information needs. Therefore, stakeholders representing opinion-leader audiences require more information, rigorous empirical evidence and measurable accessible indicators of CSR activity and impact. In terms of issue support, a stakeholder's motivation to process CSR information increases relative to the personal care and relevancy associated with the issue, which might be also extended by timely awareness about the issue as well as active engagement of stakeholders in CSR activities (Bhattacharya & Sen 2004). Likewise, social value orientation refers to 'individuals' stable preferences for the outcome distributions for oneself and others', which also impacts one's motivation to process CSR communication (Van Lange et al. 1997). Individuals also can be divided into three groups based on their social value orientation: (1) pro-social (i.e., maximizing for themselves and others, minimizing the difference in between), (2) individualistic (i.e., maximizing for themselves with little or no disregard for others), and (3) competitive (i.e., maximizing their outcomes by seeking relative advantage over others). Of these groups, individuals who align themselves to a pro-social group are expected to be the most motivated to process CSR communication (Van Lange et al. 1997).

Within the context of CSR communication as discussed above, the current is focused on the content of a CSR message and the potential impact of disclosing voluntarily unethical information in a CSR statement issued by the company involved. The studies seeks to clarify the potentially important role undertaken in credible CSR messages that are directed toward decreasing stakeholders skepticism about a company's motives, and generating greater levels of favorable reactions to that company's CSR activities. In particular, following research questions are explored in three essays, respectively: (1) What is the effect of voluntary disclosure of a drug's side effects by a pharmaceutical company on a physician's behavior for writing prescriptions? (2) What is the effect of voluntary disclosure of negative CSR information –e.g., the possible use of child labor in a textile company's suppliers, by comparing the impact of messages with or without corrective actions? (3) What is the effect of voluntary disclosure of possible exploitation of child labor in African cocoa plantations by a chocolate company without any contrast effect? In addition, the factor of awareness about the ethical issue for the relevant audience is manipulated in all three essays to see how these relationships change with higher levels of issue awareness.

The methodology applied in the research involves conducting experiments and administering surveys using pre-established scales as well as our own scales in order to collect quantitative information. Participants for the surveys have been randomly selected from the relevant populations, which have been physicians in Turkey and students at a large university in Spain, respectively.

The first study explores the extent to which voluntary registry and disclosure of clinical trial results would impact a physician's prescription writing rate. The study concerns a drug produced by a pharmaceutical company that participates in voluntary registry and disclosure and adheres to the standards of an international health authority such as the World Health Organization (WHO). The hypothesis

suggests that this particular manufacturer's drug would be preferred over those of competitors even if the drug included a greater number of reported rare and severe side effects. Based on a survey of 125 physicians employed at a major state hospital in Turkey, the results indicate that when given a drug whose clinical trials a manufacturing pharmaceutical company voluntarily registered and whose results the company disclosed unselectively, physicians would not prescribe it if it was also to report rarer and more severe side effects than those reported for equivalent drugs of its competitors. The findings suggest that pharmaceutical companies do not have a sufficient incentive to voluntarily communicate the rare and severe negative clinical trial results of prescription drugs when these results are not published for their competitors' equivalent drugs under mandatory national regulations.

As for adding appropriate context, we also provide in the Appendix two preliminary studies that served as a helpful basis for designing the first study as discussed above. The first preliminary study provides a discussion of harm reduction as part of CSR and applies this philosophy to the pharmaceutical industry (please see Appendix D). The second preliminary study analyzes the effect of voluntary disclosure of clinical trial results on patients' drug choice when such disclosure would mean also revealing rare, but not severe, side effects. Based on the results of the survey conducted with 44 UPF undergraduate and graduate students at a large university in Spain, this study concludes that if a reliable third party, such as the World Health Organization, communicates the importance of disclosure of clinical trials in a sufficiently clear manner, then consumer drug preferences likely will be affected positively as a result of voluntary clinical trial disclosure. Hence, consumers could capably reward financially the pharmaceuticals that voluntarily register their clinical trials and disclose results unselectively (please see Appendix D.2).

The second study of my thesis analyzes the effect of voluntary disclosure of negative information regarding child labor practices by a textile company in its CSR report. Based on the available literature about two-sided message marketing and CSR communication, we tested the hypothesis that it may be in the firm's interest to inform consumers that it engages in a morally questionable behavior. 160 undergraduates at a large public university in Spain were surveyed to gauge whether or not voluntary disclosure may lead to positive consumer responses. Students were asked to rate two textile companies (with and without disclosure) based on four dependent variables: (company's) perceived sincerity and trustworthiness, and attitude toward company and preference to buy. Results suggest that firms benefit from voluntary disclosure of morally questinable behavior when (1) consumers can contrast such statements with those of companies that deny infractions; (2) the firm formulates a detailed plan to avoid future infractions, and (3) consumers are aware of the ethical issue.

The third study provides insight into how information disclosure strategies regarding controversial ethical issues involving chocolate manufacturing companies affect a consumer's willingness to pay (WTP) for a chocolate product as well as consumer perceptions about a company's sincerity and trust as a socially responsible player in the industry and community. The research is conducted by an experiment with a 2x3 design and six conditions as administered to 120 undergraduate students at a large-sized university in Spain. One-half of participants were exposed to an 18-minute news video about child and slave labor at cocoa plantations with excerpts taken from an actual 2008 broadcast production. Participants were randomly assigned to view one of the three types of corporate social responsibility (CSR) messages – involving various strategies of disclosure – at a fictional chocolate manufacturer's website prior to answering a short questionnaire. Results indicate that when public awareness is low on a particular ethical issue, consumer WTP is the same, regardless of the corporate

disclosure strategy. However, when public awareness is high, consumer WTP decreases where companies follow a no-disclosure strategy and WTP shows no difference between positive and negative forms of information disclosure. The study suggests that voluntary negative social disclosure will not damage a consumer's WTP, given it acts definitively to resolve the issue and is transparent in the process.

Overall, the studies are intended to contribute to the literature on ethical consumerism and sustainable business by revealing contexts in which companies can discuss their problems in a transparent manner with the condition that they are truly committed to eliminating those problems.

Table of Contents

Page

1. DOES FULL TRANSPARENCY OF CLINICAL TRIALS CHANGE PHYSICIANS' PRESCRIPTION?

1.1. Introduction

Clinical trial information is the property of the sponsoring pharmaceutical company, and current regulations only oblige pharmaceutical companies to disclose clinical trial information and results to national authorities upon application for drug approval. During the last decade, the medical research community has witnessed several drug scandals due to pharmaceutical company misconduct concerning clinical trial disclosure, including those related to Vioxx, Prozac, and Aprotinin (Avorn 2006; Curfman, Drazen & Morrissey 2005; Willyard 2007). In light of these scandals, rising concerns have been expressed in the medical and economics literature pertaining to current regulations for the registration of clinical trials and conflicts of interest among stakeholders in pharmaceutical companies.

Recent medical literature contends that the current system permits (a) suppression of the disclosure of adverse effects, (b) selective publication, (c) suboptimal treatment evaluation, and (d) inefficient resource allocation (Couzin 2004; Doucet & Sismondo 2008; Garber 2001; Palacios & Ramirez 2007). The economics literature argues that these problems persist due to incentives provided under the current regulation, which encourage unethical conduct and non-transparent clinical trial disclosure (Lewis, Reichman & So 2007).

Given that clinical trials are the principal source of efficacy and safety data in health interventions, the current aim of ethical debates is the formation of new policies for the promotion of transparent clinical trials, as well as the elimination of obstacles to this goal (Dahm, Gonzalez & Porteiro 2008; Dickersin & Rennie 2003).

Specifically, three prospective policies have been the focus of the medical and economics literature: (a) a clinical trials registry; (b) clinical trial results disclosure; and (c) the modification of clinical trial funding, in particular the "public funding of clinical trials" (Dahm, Gonzalez & Porteiro 2008; Lewis, Reichman & So 2007).

The clinical trials registry policy refers to the registration of design and procedural clinical trial information into an accepted public clinical trials registry during the patient enrollment period (ICMJE 2007). Even though several voluntary registries have been created, Anderson and Mainheimer (2002) report that they have been mostly ineffective. In 2005, aiming to unite the registries and make them more effective, the World Health Organization (WHO) created the "Registry Platform", a network whose aim is to establish a global standard for clinical trial registration through the assembly of existing trial registry platforms under a single network (Gulmezoglu et al. 2005; WHO 2006). Clinical trial registration has grown significantly since the International Committee of Medical Journal Editors (ICMJE) announced that clinical trial registration in a public registry recognized by the WHO's Registry Platform is required for all publications in member journals as of July 1, 2005 (De Angelis et al. 2005; ICMJE 2007; Zarin, Tse & Ide 2005). Mostly the majority of registry activity remains voluntary, although there are some examples of compulsory registration in the market, (Dahm, Gonzalez & Porteiro 2008; Deborah et al. 2007; Williams 2007).

Full disclosure of clinical trial results through a publicly available database is a powerful tool against the suppression of adverse events. The manipulation and selective publication of clinical trial data impedes analyses of drug efficacy and limits the ability of research funding agencies to determine the best areas for investment (Horton & Smith 1999). A study by Rising, Bacchetti and Bero (2008) found a marked tendency for published clinical trials to be misleading in the extent of their favorable findings. Currently, clinical trial sponsors are not legally obligated

to publicly disclose adverse events by the national authorities after drug approval (Williams 2007). Like clinical trial registration, the disclosure of results through a public database remains voluntary, and pharmaceutical companies hesitate to disclose unsuccessful trials as well as adverse effects observed in successful trials (Davidoff et al. 2001; Krimsky 1999).

The concerns and reluctance of pharmaceutical companies to disclose adverse events are substantiated by the economics literature, which has revealed a negative correlation between the number of reported side effects and drug sales (Azoulay 2002). Furthermore, the consensus in the economics literature concerning the disclosure of product risk information is that firms are unlikely to disclose unfavorable information voluntarily, especially if the information is costly to acquire, as in the case of clinical trials (Polinsky & Shavell 2006; Shavell 1994). The overregulation of transparency policies may also adversely impact the incentives pharmaceutical companies currently receive for clinical trial-based discovery; such a situation would ultimately impede advances in medical knowledge (Horton 2006). However, a recent game theory-based economic analysis concludes that this negative impact can be minimized and full transparency can be obtained by implementing a combination of compulsory trial registration and voluntary results disclosure databases (Dahm, Gonzalez & Porteiro 2008)

Although compulsory clinical trial registry, results disclosure, and public funding disclosure might be extremely effective, their ideal implementation requires the cooperation of governments and pharmaceutical lobbies. Even though the international organizations representing the pharmaceutical industry have accepted full transparency as an ethical obligation of the industry, pharmaceutical companies have yet to provide a full commitment (Couzin 2005; Ehringaus & Korn 2006; IFMPA 2005; Rockhold & Krall 2006).

Given the current debates on the efficacy of various policies, the focus of the present study is the potential impact that a voluntary registry and results disclosure policy for pharmaceutical companies would have on the prescription choices of physicians. Specifically, under voluntary registry and disclosure, pharmaceutical companies face three options: (a) to avoid participation in the registry and disclosure program, (b) to participate in the registry and disclosure program based upon their own standards, or (c) to participate in the registry and disclosure program as suggested by an international health authority, such as the WHO. The present study contributes to the current body of literature through an investigative survey that asks whether medical decision-makers value clinical trial disclosure when making treatment decisions and whether they would reward pharmaceutical companies that voluntarily register clinical trials and disclose resultant data even if they report more rare or severe side effects than those reported for their competitors' equivalent drugs.

a) Research Question and Hypotheses

The aims of the present study are summarized by three research questions and their respective hypotheses:

1.When choosing among drugs from the same therapeutic subgroup/class, are doctors influenced by reports of rare and severe side effects?

> The number of reported rare and severe side effects relative to those of another drug from the same therapeutic subgroup/class will decrease the probability of prescription.

2. If the drug in question has a greater number of reported rare and severe side effects, does the voluntary participation of the pharmaceutical company in clinical

study registration and disclosure via a proprietary website (i.e., by its own standards) impact the likelihood of prescription?

> If clinical trials are registered and disclosed voluntarily according to a company's own standards, the probability of prescription will increase irrespective of additional reported rare and severe side effects.

3. Is the likelihood of prescription affected if the pharmaceutical company in question voluntarily registers and discloses clinical trials employing the standards and database of the World Health Organization's (WHO) Registry Platform for Clinical Trials, despite a greater number of reported rare and severe side effects?

> If the clinical trial registry and result disclosure utilized by the pharmaceutical company are supported by the World Health Organization, the likelihood of prescription will increase relative to transparency based on the pharmaceutical companies' own standards.

b) Survey Design

Three versions of a survey were created to test the above hypotheses. The survey was distributed to 150 physicians in one of the main public hospitals in Istanbul, Turkey, and 125 responses were obtained. Physicians were randomly assigned one of three versions of the survey. In all versions, physicians were asked to choose between two drugs, Antibio-A and Antibio-B, after reading about side effects reported through the Food and Drug Administration's webpage for healthcare professionals. Physicians were told that the two drugs were equally priced, were macrolide antibiotics with different active ingredients, and were used in the treatment of similar medical problems; however, Antibio-A reported two additional rare and severe side effects: chest pain and arrhythmia.

Version 1 of the survey assessed the effects of additional rare and severe reported side effects on the behavior of the prescriber. In Version 2 of the survey, physicians

were also informed that the pharmaceutical company that produces Antibio-A, the drug with a greater number of rare and severe side effects, registers and discloses clinical trials via its own website. Finally, in Version 3 of the survey, physicians were told that Antibio-A registers clinical trials employing the standards of the WHO via the Registry Platform and indiscriminately discloses clinical trial results.

All surveys also included identical nominal scale questions to assess physicians' knowledge of the degree of transparency of clinical trials (PK) and physicians' perceptions of the quality of clinical trial reporting by national authorities under current regulations (PQ). Additionally, at the end of the survey, we directly asked physicians if they value and consider clinical trial registry (VR) and results disclosure transparency (VDR) when issuing prescriptions and collected demographic data including medical specialization, years in practice, previous involvement in clinical trials, nationality, and sex (For the complete survey versions, please see Appendix A.1. Survey Instructions for Physicians).

c) Model Specification

In order to test our hypotheses, we integrated our survey data into the following model:

$$\text{logit } \{ P(\text{Choice of drug A}) \} = \beta_{VT}VT + \beta_{WHO}WHO + \beta_{PQ}PQ + \beta_{PK}PK$$

The model specified above incorporates a logit regression, which aims to describe the relationship between the probability of a physician's choosing the drug Antibio-A and the following independent variables: (1) voluntary transparency (VT); (2) transparency through an international health authority (WHO) and moderator variables; (3) the physician's knowledge of the degree of transparency about the clinical trials (PK); and (4) the physician's perceptions of the quality of clinical trial

reporting by national authorities under current regulations (PQ). PK and PQ were measured via nominal scales included in the survey.

1.2. Results

The results displayed in Table 1.1. indicate that in survey Versions 1 and 2, the drug Antibio-B, which had fewer and less severe side effects but was without registry or voluntary disclosure, was chosen by 100% of participating physicians. In survey Version 3, in which voluntary registry and disclosure of Antibio-A was made public through WHO standards and database, the vast majority of participating physicians (83%) chose Antibio-B, while seven physicians stated that they were indifferent regarding the two drugs. Regression analysis was not possible and was therefore not reported, due to insufficient variation among answers.

Table 1. 1. Physician's Drug Choice

Results	Antibio-A (more side-effects)	Indiffe-rent	Antibio-B (less side-effects)	Sample Size
Version 1	0 (0%)	0	43 (100%)	43
Version 2	0 (0%)	0	41 (100%)	41
Version 3	0 (0%)	7 (17.1%)	34 (82.9%)	41

Participant responses to the different scales of interest are summarized in Table 1.2. Importantly, all the scales developed had acceptable reliability levels, i.e., >0.70, across different versions of the survey, indicating that the pooling of nominal data from different versions of the survey was acceptable. Based on one-way and pair-wise analyses, we conclude that only the scale quantifying physicians' perception of information under current regulations, PQ, statistically differed between Versions 1 & 2 ($p < .02$) and Versions 1 & 3 ($p < .01$).

Table 1.2. Scale Results

Scales	Perceived Quality of Transparency (1-4)	Knowledge of Clinical Trial Transparency (0-1)	Valuation of Registry (1-4)	Valuation of Disclosure of Results (1-4)
Reliability (alpha)	0.88	0.745	0.939	0.96
Mean	2.47	0.74	3.45	3.47
Version 1	2.13	0.75	3.39	3.4
Version 2	2.61	0.75	3.45	3.48
Version 3	2.62	0.73	3.51	3.54

1.3. Interpretation

Based on the results of the present study, the number and severity of side effects are of the utmost importance in prescription drug choice among physicians, outweighing any positive value associated with clinical trial registry and disclosure. However, when analyzed separately, responses obtained from scaled questions revealed that physicians positively value clinical trial registry and disclosure. Scale scores revealed that physicians are indifferent with respect to the quality of clinical trial information under current regulations even though their knowledge of clinical trial regulations is above average, indicating they are well aware of the transparency debate.

The observation that a small number of physicians viewed both medications equally in Version 3 in spite of the presence of additional serious side effects is intriguing, as it indicates that these physicians assumed that the company which did not fully disclose all clinical trial results was likely to have withheld information regarding

adverse events. Thus, these doctors viewed the known additional risks Antibio-A to be approximately equal to the unknown additional risks of Antibio-B. This finding partially supports the claim made by Dahm, Gonzalez and Porteiro (2008) that voluntary results disclosure, if accompanied by compulsory trial registration, may effectively lead to full transparency on the basis of physicians' distrust of drugs whose clinical trial results are not disclosed. This finding also highlights the importance of international regulatory agencies such as the WHO in monitoring clinical trials. No physicians who completed Version 2 of the survey, in which registration and result reporting were not endorsed by a regulatory agency, considered this disclosure to outweigh the additional risks of Antibio-A.

1.4. Contribution & Implications

Pharmaceutical companies are hesitant to participate in transparent clinical trials under voluntary registry and disclosure policies, since this would require the disclosure of information that could negatively affect sales of their product. Therefore, in order for voluntary transparency to be effective, the possibility of financial penalty for pharmaceutical companies must be eliminated or negated via an incentive.

The present study contributes to medical and economics literature by investigating the consequences associated with voluntary registry and disclosure within a simple context. Our results reveal that there is no incentive for pharmaceutical companies to voluntarily disclose negative information about their drugs more often than their competitors do, despite the advocacy of transparency by an international health authority such as the WHO. The implementation of a compulsory registry may be preferable, even though it may hinder gains in clinical knowledge. A recent economics paper suggests that optimal transparency can only be achieved through

compulsory registry (Dahm, Gonzalez & Porteiro 2008). The results of the present study support this line of reasoning.

1.5. Limitations

The limitations of the present study include the simplistic nature of the survey investigating prescription drug choices; this choice was made because a comprehensive review of factors influencing prescription choice, such as personal experience and insurance coverage, was beyond the scope of a single survey. Personal experience is a particularly important factor in physician prescribing patterns that cannot be addressed in surveys using unnamed drugs; however, physicians' experience with a drug, positive or negative, could outweigh the number of rare side effects associated with it.

Another confounding variable for the present study is the unknown level of attention that participating physicians invested in the completion of the survey. Given that a physician's time is highly valuable, he or she may have completed the survey in haste, without full consideration; hence, his or her responses may not be reflective of their actions. However, we believe these limitations are intrinsic to the survey format used with physician participants and are necessary to reduce the negative effect of task difficulty on the reliability of the results.

Finally, this study was conducted in a relatively small and homogenous cohort of physicians in Turkey. Physician attitudes may vary across institutions and countries, and further studies of physicians in other areas could be informative in this respect.

1.6. Further Research

Although the literature suggests that compulsory registries and disclosure may be the most effective way to promote transparency, a confounding requirement is the

consensus of several different agents that possess conflicting interests. Hence, a research focus on the discovery of new potential contexts for voluntary transparency regulations, in which incentives might be bestowed upon pharmaceutical companies that registered and disclosed clinical trials unselectively, could prove to be beneficial for all parties involved. However, in such a scenario, pharmaceutical companies would have to be rewarded by customers, namely physicians and/or patients.

Based on the results of the present study, physicians are unlikely to preferentially prescribe a medication on the basis of full disclosure of clinical trial results if that disclosure leads to other medications appearing to be superior products. However, the introduction of mandatory registration and result disclosure policies may prevent companies that fully disclose the adverse events of a clinical trial from suffering economically for their actions. Future studies of drug prescription preferences in the United States and other regions where mandatory trial registration and result disclosure have recently been enforced will be informative in this regard. Furthermore, patients may also express a preference to be treated with drugs whose known risks have been clearly established, particularly in light of the recent scandals concerning clinical trial disclosure. This awareness of negative past events may prove more effective than a general declaration on the importance of clinical trial transparency. Other studies exploring patient attitudes toward full transparency may elucidate how improved education and awareness of the importance of clinical trials can affect patient choices.

1.7. Conclusions

The present study concludes that currently there is not enough incentive for pharmaceutical companies to voluntarily register and disclose positive and negative clinical trial information, although physicians are aware of the importance of full

transparency. While international organizations representing the pharmaceutical industry have acknowledged clinical trial transparency as an ethical obligation, pharmaceutical companies have yet to make a full commitment (Couzin 2005; Ehringaus & Korn 2007)

On the other hand, we are optimistic, since recent reviews of clinical trial transparency highlight significant improvements during the past five years (Deborah et al. 2007). Although a clinical trial registry was considered an idealistic scenario not long ago, it is now a greatly debated reality. Hence, we believe that clinical trial disclosure and full transparency in the pharmaceutical industry can be achieved if these remain a focus and goal of the medical research community (ICMJE 2007).

2. CONSUMER RESPONSES TO VOLUNTARY NEGATIVE CORPORATE SOCIAL DISCLOSURE

(with Marc Le Menestrel)

2.1. Introduction

In the last three decades, both popular media and academic studies have documented the importance of socially responsible corporate behavior based on stakeholder and legitimacy theories. Corporate Social Responsibility (CSR) advocates that companies be accountable to all stakeholders including society at large while seeking market legitimacy and viability (Gray et al. 2001; Roberts 1992; Schuman 1995). Research indicates that almost three-quarters of American investors consider social responsibility when they make investment decisions (Laurita 2001). It seems that business leaders have responded to public demands for ethical firm behavior.

Many corporations now periodically communicate their CSR activities in an effort to address consumer concerns, to create favorable brand images, and to develop positive relationships with all other stakeholders (Campbell, Craven & Shrives 2002; Deegan 2002; Roberts 1992; Yoon, Gurhan-Canli & Schwarz 2006; Williams 1999; Wilmhurst & Frost 2000). Companies generally use websites and annual reports for 'Corporate Social Disclosure' — i.e., the disclosure of their CSR practices (Berkey 1990; Deegan 2002; Hopwood 1996; Judd & Timms 1991; Lanis & Waller 2007; Neu, Warsame & Pedwell 1998; Stanton & Stanton 2002). This includes information on corporate governance, ethical practice and social responsibility (Lanis & Waller 2007).

Now that CSR disclosure is a common business practice, companies face a new challenge — optimally formulating the content of CSR reports so that it achieves

its primary objective: to benefit the firm's reputation. Consumers demand information regarding the impact of their operations on society and encourage firms to do business in socially responsible ways. Given that business activities affect society in both positive and negative manners, such a demand would require firms to be fully transparent. On the other hand, disclosing information regarding harmful practices can be a delicate endeavor, because it may contradict the primary objective of CSR communication.

In line with this argument, previous research has demonstrated a positive bias in information disclosed by companies regarding their activities, in order to protect their interests (Brown & Deegan 1998; Cho & Patten 2007; Deegan & Rankin 1996). In a study that analyzed a sample of Australian companies' voluntary disclosure of information regarding their environmental impact between 1998 and 2000, Gozali, How and Verhoeyen (2002) demonstrated that most corporations did not report any regulatory violations. The authors attributed this fact not to an absence of violations on the part of the companies; rather they argued that some companies held back information regarding such violations, knowing that businesses with clean environmental records achieve significantly better market performance. Companies benefit from disclosing CSR information that improves their reputation in the eyes of stakeholders (Gray, Owen & Adams 1996). As a result, CSR reports often do not reflect actual CSR performance as they omit any negative information that might harm their reputation (Deegan & Gordon 1996; Deegan & Rankin 1996; Guthrie & Parker 1989; Patten 2002; Rockness, Schlachter & Rockness 1986).

This dichotomy, demanding transparency of business activities, yet penalizing firms for irresponsible practices via negative consumer and market responses, is counter-productive. As highlighted by Kerr (1975), society requests honest disclosures, but only rewards reports of good behavior. This phenomenon illustrates the challenge

that companies face: to disclose negative information without hurting their image (Argenti & Forman 2002).

When evaluating CSR information, consumers also judge the credibility of a company's CSR report. Previous research suggests that consumers tend to distrust CSR reports they perceive as self-serving (Webb & Morr 1998). When consumers read negative CSR information issued by the firm, they engage in more complex evaluation process. If a CSR report acknowledges a firm's negative impact on society, consumers face the dilemma whether to punish the company for its negative impact or reward it for being honest.

As consumers' overall responses are ambiguous, companies hesitate to be honest about their harmful practices. Without a secure environment in which businesses can reveal their shortcomings while keeping their reputation intact, effective solutions will remain elusive. In the context of this dilemma, the objective of our study is to reveal conditions under which companies can publicly disclose negative information without hurting consumer attitudes towards the firm.

We will address this CSR disclosure quandary by analyzing consumer trust in the company and self-reported purchasing behavior in reaction to a company's voluntary disclosure of negative information. The context of potential ethical infractions was the issue of child labor in the textile industry. Based on a survey conducted with 160 undergraduate students of a large public university, we studied consumers' responses to corporations' voluntary disclosure of social responsibility violations, and their commitment to prevent those in the future. We conclude that companies may benefit from disclosing their unethical practices when (a) the company commits to eradicating the unethical practices and suggests how they will do so; (b) statements of companies who claim to have a clean record are available

to consumers as a comparison point and (c) there is a public awareness on the ethical issue in question.

This study contributes to existing literature in multiple ways. First, it applies marketing findings on two-sided messages to CSR reporting. Second, it demonstrates the effect of voluntary disclosure of information on consumer trust. Additionally, it illustrates how the study of consumer psychology is relevant for marketing and communication management regarding corporate social responsibility.

In our literature review on the effect of voluntary corporate disclosure of negative information in CSR reports on consumer responses, we refer to five streams of research: (a) CSR communication; (b) attribution theory; (c) the economics of self-regulation and signaling; (d) the psychological literature on trust and (e) two-sided messages in marketing.

2.2. Literature Review

a) Corporate Social Responsibility

Empirical studies show that consumers do not necessarily reward companies that engage in CSR activities. In fact, data reveal that consumer patronage correlates with the perception of corporate sincerity. Consumers draw inferences about marketers' motives when they communicate about CSR activities. These activities may either be interpreted as motivated by a firm's sincere desire to benefit society, or as a marketing tactic, merely intended to further its profit motive. The goal consumers attribute these activities to, affect their attitude towards the firm or brands it is associated with (Campbell & Kirmani 2000; Ellen, Mohr & Web 2000; Webb & Mohr 1998). When the public perceives a company's CSR report as sincere, they evaluate it more positively; when the communication appears

ambiguous in intent, they are ineffective. A company's image is hurt when consumers perceive the claims regarding responsible activities as disingenuous, and merely used as a public relations tool (Andreasen 1996; Becker-Olsen & Simmons 2002; Drumwright 1996; Ellen, Mohr & Web 2000; Webb & Mohr 1998; Yoon, Gurhan-Canli & Norbert 2006). Forehand and Grier (2003) explain this repeatedly demonstrated effect by referring to the perceived inconsistency between a company's expressed motive and its salient motive, which hurts the firm's credibility. They suggest that marketers should be honest about their motives. Several other studies confirm these findings (Barone, Miyazaki & Taylor 2000; Brown & Dacin 1997; Creyer & Ross 1997; Ellen, Mohr & Web 2000; Sen & Bhattacharya 2001).

Further, literature reveals that the type of the CSR initiative reported on affects consumers' perception of its sincerity. Consumers are more skeptical towards CSR initiatives when the fit between the company's core business and the supported cause is low. Hence consumers develop more positive attitude towards a firm if the content of its CRS communication fits their core business better. Further, literature specifies that for high-fit CSR initiatives to improve consumer perceptions and stimulate purchase intentions, such initiatives must be proactive, voluntary, and not occur in response to a bad event (Becker-Olsen, Cudmore & Hill 2006).

Previous research on the issue has mostly studied the effect of one-sided positive CSR messages. What happens when firms are honest and open and report fairly on less flattering and ethical activities in such messages is largely ignored. In this paper, we want make a contribution to answering that question. We studied consumers' perception of sincerity of CSR communication regarding the occurrence of child labor in the manufacturing process of textile companies. In this context the product line and the ethical issue are strongly related. In addition, self-disclosure of negative information in a CSR communication is by definition voluntary, high-fit (related

with company's operations), and not a reaction to a bad event when another party does not reveal it beforehand. Hence we expect that self-disclosure of negative information in this context results in consumers perceiving the firm as sincere. Yet, whether such positive effect would overcompensate the direct negative effect of learning about a firm's unethical behavior is our research question. As mentioned before and explained below, we hypothesize that in certain circumstances it can be in the firm's interest to make its harmful impact on its surroundings public. To understand perceptions of sincerity resulting from processing a firm's statement we need to know a bit more about attribution theory.

b) Attribution Theory

When one person evaluates another person's motives, *attribution theory* explains how "inferred" intentions affect the first person's appraisal of the other (Jones & Davis 1965; Kelley 1967; Nisbett & Ross 1980). In a very elementary context this means that people infer whether someone is good or bad based on his/her good or bad behavior (Yoon, Gurhan-Canli & Norbert 2006). When a person's behavior can be attributed to any of several reasons, individuals apply the *discounting principle* (Kelley 1972): the likelihood that a certain behavior is attributed to a particular cause becomes smaller when other possible causes can be identified. Individuals use the discounting principle for the evaluation of positive events rather than negative events, as usually the number of possible causes for positive events is larger than the latter. If a person exhibits negative social behavior, people ascribe such behavior directly to internal causes (i.e., to the individual's dispositions). This is considered as the only plausible motivation as negative actions aren't associated with any desired outcome for the society (Pratto & John 1991). In contrast, when a person displays positive behavior, the reason could be both (1) intrinsic, and (2) external social influence. Furthermore, individuals who usually behave negatively can, at times, behave in positive ways. Hence a positive action can also be attributed as (3) an incidental good behavior of a bad person. As there are three possible

causes for a positive action, the probability that a positive behavior will be ascribed to intrinsic motivation is smaller relative to negative events (Skowronski & Carlston 1987; Ybarra & Stephan 1996).

Applying these psychological theories to consumer behavior, the discounting principle suggests that when consumers evaluate a positive CSR message, the probability that they will attribute it to a sincere, intrinsic motivation, is smaller compared to when they evaluate a CSR message containing negative information. This is the case because there are multiple motivations to which activities in a positive CSR report can be attributed. Apart from motivated by an intrinsic wish to behave responsibly, they could be an effort to benefit company reputation (external social influence), for example. CSR reports containing negative elements are more likely to be interpreted as honest messages, since the consumer assumes that a firm does not stand to gain external benefits from revealing such information. When people read an unfavorable element disclosed in a CSR report, they are likely to attribute it to intrinsic motivation, as this negative information has no direct social positive consequence and hence could hurt a company's image. In this case, the only plausible interpretation is to perceive the report as truthfully documenting a firm's CSR activities. Therefore, they're likely to lead to a perception of the company as sincere. In line with this suggestion, previous research has shown that consumers' initial impression of positive CSR disclosures is that they are self-serving strategies (Webb & Morr 1998). Hence we may assume that when a firm's CSR communication is completely positive, consumers may mainly attribute it to profit-seeking motives rather than its intrinsic motives, hence wouldn't find it necessarily sincere.

Interestingly, when CSR reports lead to perceptions of sincerity by including negative elements, positive elements subsequently described in the same report are also likely to be attributed to intrinsic, sincere motives. In short, including

unfavorable elements in a CSR report may lead to people making more positive attributions about other activities documented in the same report. However, we also know that consumers tend to penalize companies, which they perceive as unethical. Hence, the reputation of a company, which voluntarily discloses negative information in its CSR reports may (a) suffer because of its association with irresponsible actions and (b) benefit from positive attributions of the firm's behavior in terms of honesty and sincerity. Whether the net outcome for the firm is positive or negative is an empirical question and will most likely depend on a number of factors. In this paper we try to get some insight in some of these. For example, it seems essential that a firm expresses its regret about the damages done and formulates positive intentions for the future. If a company discloses negative information without suggesting corrective actions will be taken from then on, it is unlikely their reputation will benefit. However, if a report containing negative elements also states positive intentions for the future, this statement will be perceived as more sincere and trustworthy than in case such statement is made in isolation.

c) Self-Regulation and Signaling Literature

Companies mostly create and follow their own standards and rules when it comes to CSR, which means that they self-regulate on the social and ethical repercussions of their operations. This is why we believe the literature of self-regulation is relevant to understand consumer's responses to CSR reports. The literature of self-regulation reveals that companies are increasingly assuming self-regulatory responsibilities such as establishing standards for business ethics, and monitoring and enforcing them. (Ayres & Braithwaite 1992; Delmas & Terlaak 2002; Parker 2002). There are four main motivations identified for this behavior: complying with regulatory legislation, improving an industry's or a firm's reputation (justifiably or unjustifiably; Edelman, Erlanger & Lande 1993; King, Lenox & Barnett 2002),

avoiding more stringent regulation (King & Lenox 2000; Maxwell, Lyon & Hacket 2000), and camouflaging or disguising improper company behavior (McKendall, DeMarr & Jones-Rikkers 2002). Previously, we have discussed that consumers try to infer firms' real motivation when they evaluate CSR communications. This attribution process determines consumer's judgments of sincerity and efficacy of these self-regulatory efforts, as there are several reasons behind self-regulation. Unfortunately, this is a difficult task as objective information about such company policies and also their true motives are generally not available to the public (Toffel & Short 2008). Toffel and Short (2008) argue that one possible way to judge firms' motives is to pay attention to the signals of self-regulation. They follow Posner's (2000b) definition of a signal, which is a symbolic gesture designed to distinguish oneself to some intended audience as a good type. These authors suggest that signals are a very important means by which firms can be identified as (in)sincere in their self-regulation. The relevant literature concludes that a signal is a valuable tool for determining trustworthiness and sincerity, only if is too costly to fake and this fact is well known (Posner 2000a p.19). Given that a mere claim of voluntary regulatory compliance is not expensive to fake, it is not a reliable signal to assess a companies' sincerity. Confirming this theory, empirical research on environmental performance of companies concludes that self-regulation rarely improves the measurable environmental performance of participating companies (Darnall & Carmin 2005; Darnall & Sides 2008; Lyon & Maxwell 2007).

Even though reported self-regulation is not a useful signal to differentiate companies, Toffel and Short (2008) identify "voluntary disclosure of self-regulation violation" as a reliable signal to do so. In their paper, they suggest that the voluntary disclosure of regulatory violations is a reliable signal for regulators as it has two associated costs: implementing and maintaining a monitoring system and attracting regulatory attention by revealing violations. Accordingly, the authors conclude that if the company in question has a positive track record of compliance

with U.S. Environmental Protection Agency's (EPA) Audit Policy, such voluntary disclosures are likely to signal future compliance. Based on this conclusion, they suggest that regulatory agencies can use this signal to better recognize honest facilities. For the same reasons, we think that "voluntary disclosure of negative CSR information" can also be an efficient signal of sincerity and trustworthiness to consumers. Hence, self-regulation literature also supports our hypothesis that disclosing negative information in a CSR communication increases consumers' perception of sincerity and trustworthiness. Having identified trustworthiness as another effect of disclosure, in the next section we will review the trust literature and its relevancy for our study.

d) Psychology Literature on Trust

"Trust is defined as a psychological state or orientation of an actor (the truster) toward a specific partner (the trustee) with whom the actor is some way interdependent; that is, the truster needs confidence in trustee's cooperation to attain valued outcomes or resources" (Simpson 2007 p.264). A meta-analysis outlines the antecedents of trust as (1) *ability*: the extent that trustee has the knowledge and capacity to do a certain action, (2) *benevolence*: perceived willingness of the trustee to do good to the trustor, apart from a self-serving profit motive, (3) *integrity*: the truster's perception of trustee's set of principles as acceptable, fair and just, and (4) *trust prospensity*: general tendency to trust others; a stable individual-personality difference that affects the likelihood that a person will trust (Colquitt, Scott & LePine 2007; Mayer, Davis & Schoorman 1995; Peters, Covello & McCallum 1996). In our study we control for trust propensity in order to capture our subjects' perception of a company's trustworthiness independent from their personal tendency to trust others. On the other hand, we decide not to differentiate antecedents of trust; ability, benevolence, and integrity as participants will be asked to state their general feelings of trust based on limited information they are

provided with. Instead, we decide to proceed with a general trust scale, which suits these conditions better.

The marketing literature states trust is important as it might reduce the perceived risk and transactions costs, while increasing customer retention and satisfaction (Bejou, Ennew & Palmer 1998). Recent literature also reveals so called trust-based commitment models, which suggest that trust leads to more than just satisfaction, it leads to consumer loyalty (Hess & Story 2005). Given its positive effects, researchers identify several mechanisms to establish trust (e.g., Barber 1983; Covello 1992; Cvetkovich & Lofstedt 1999; Peters, Covello & McCallum 1996; Siegrist, Earle & Gutcher 2003; Slovic 1993; Yamagishi 1998). One mechanism that relates to our study is offered by the literature of environmental risk communication. Literature on risk communication relates trust to information disclosure, as a consensus can't be achieved without trust (Cvetkovich & Lofstedt 1999; Fishhoff 1995; Ohnuma et al. 2007; Slovic 1993).

The literature of environmental risk communication suggests disclosure of possible environmental damage is a mechanism that generates trust when the information disclosed gives assurance, which is achieved by either (a) voluntary declaration of penalties in case it fails to meet its own standards and/or (b) involvement of outsiders (Nakayachi & Ohnuma 2003; Yamagishi 1998; Yamagishi & Yamagishi 1994). The literature also states that it is important to note that once trust is lost, it is very difficult to regain, hence this method might not work once the trust is lost (Nakayachi & Watabe 2005).

For the purposes of this study, we view voluntary disclosure of negative CSR information as a voluntary declaration of, or at least exposure to, sanctions and hence a trust enhancer. We hypothesize that such corporate admissions gives assurance to customers; hence lead them to trust to the company more. In order to

control for any mistrust that our subjects might have for the company statements used at our study, we decide not to use actual brands names but rather name the companies with single letters A and B.

e) Two-sided Messages

Building upon the literature discussed above, in the last section, we will review marketing literature of two-sided messages. Two-sided messages refer to communications that include both positive and negative information and it is a technique used as a marketing strategy. The marketing literature on two-sided messages provides us with insights about a similar context with the situation we are interested in, in which firms voluntarily communicate unfavorable information. Although it sounds counterintuitive, this literature reveals that two-sided messages can be effective.

In a recent meta-analysis on the persuasive impact of two-sided advertising, Eisend (2006) confirms that two-sided messages increase source credibility, and perceived novelty of the company. This, in turn, creates positive cognitive responses and reduces negative responses, hence positively affecting consumers' attitude toward the brand and purchase intention. The study reveals that the net effect of two-sided messages depends on the relevance and the quantity of the negative information given. The impact on attitude towards the firm or brand and purchase likelihood increases when (a) negative information is presented last in the message, (b) favorable and unfavorable traits are highly correlated, (c) negative information is given voluntarily, and (d) consumers have negative or neutral prior attitudes (Eisend 2006). In line with these findings, we suggest that when companies voluntarily disclose negative information in their CSR reports and commit to resolving the issue, their credibility improves leading to higher consumer patronage as it meets all the necessary conditions specified.

2.3. Research Questions & Procedure

Based on the previous literature review, we hypothesize that when consumers can compare the CSR report of a firm that includes voluntary disclosure of negative information with a completely clean report of another firm (a) consumers will prefer to buy from the company with the completely positive CSR information. On the other hand (b) if the disclosure of negative information is accompanied by a commitment to and a detailed approach on how to resolve previous ethical infractions, consumers' purchase intentions will shift towards the firm who discloses negative information. We suggest that this effect will be mediated by perceived sincerity and consumers' trust in the disclosing firm. In turn, these mediators express their effect on purchase intentions through improved attitudes towards that company. Last, we propose that (c) when the general public is more aware of a certain ethical issue, for example because of heightened media attention, it is in the interest of companies to disclose potential ethical infractions regarding this issue, because it will increase purchase intentions. Hence, we test two factors, which may enhance the effect of negative disclosure; (1) proposing corrective action and (2) third party induced awareness on the issue.

We tested these hypotheses using a 2 (*awareness raised by a third party*) x 2 (*formulation of corrective action*) experimental design, see Table 2.1. for an overview. One hundred and sixty undergraduate students from a university in a large metropolitan area participated in this study. They were randomly assigned to one of four conditions. Child labor is currently a pervasive problem within the textile industry. All participants were provided with the statements posted on the websites of two companies active in the textile industry, regarding the prevalence of child labor in their suppliers' facilities.

In each condition, both firms state that they monitor for the existence of child labor. One company (A) claims that no instances of child labor have been identified and the other company (B) acknowledges that some instances have been detected. In disclosing this information, the company (B) clearly states that it deplores the use of child labor, but unfortunately discovered the violation in its suppliers' facilities in 2007. Participants were quizzed using True/False questions at the end of their session to assess whether they had read the scenarios attentively (see Appendix B.1. for complete instructions).

Table 2.1. Experimental Design

	Article	Company A	Company B
Condition 1	Not presented	Free of child labor	Acknowledges some instances of child labor
Condition 2	Not presented	Free of child labor	Acknowledges some instances of child labor with corrective actions
Condition 3	Presented	Free of child labor	Acknowledges some instances of child labor
Condition 4	Presented	Free of child labor	Acknowledges some instances of child labor with corrective actions

After reading the reports of both firms in each condition, participants are asked which firm they would prefer to purchase from, given that both firms offered similar products. Once participants selected a firm, they were asked to rate the sincerity of both companies, and indicate their attitude towards and trust in both of them. At the end of the questionnaire, demographic questions were presented to participants.

a) Independent Variables

Voluntary Disclosure of Negative Information: Participants read two CSR statements of two different companies regarding child labor one of which voluntarily discloses negative information, possible practice of child labor. In disclosing this information, the company clearly states that it deplores the use of child labor, but unfortunately discovered the violation in its suppliers' facilities in 2007. Voluntary disclosure of negative information is embedded in our experimental design, in which Company B refers to the company with voluntary disclosure of negative information and Company A without negative information. Our analysis throughout the paper comparing Company A and Company B reveals the effect of voluntary disclosure of negative information. We verified participants' understanding of the difference between the two companies' statements using a number of True/False questions at the end of the survey.

Awareness: Half of the participants were asked to read a newspaper article at the beginning of the session. The passage given to the participants was created by published articles from BBC and International Labor Organization (BBC 2007; ILO 1996). The article was used to create awareness of the fact that child labor is a current problem in developing countries where many multinational textile companies have their suppliers. This variable is coded as a dummy variable ("article"), where 1 indicates a participant has read the article described above.

Corrective Action*:* Orthogonal with the awareness manipulation, we manipulated whether firm B's report mentioned how it would eliminate such instances of child labor. We adapted such a statement from a GAP (2007) press release on child labor. In the analysis, corrective actions is coded as a dummy variable "plan", where 1 indicates the company that discloses negative information also reveals its plan to eliminate those infractions.

b) Dependent Variables

Preference to Buy: To measure the respondents' preference to buy, we asked participants from which of the two companies they would prefer to purchase, if they were to buy a piece of clothing now. We use this simple form of preference question, as we believe this is a realistic representation of an actual consumer's purchase process. To make sure the results are reliable, we also asked participants to rate their willingness to buy from each company separately using a five-point purchase intention scale. Using this scale, participants expressed whether they would: (1) definitely, (2) probably, (3) may, (4) probably not, or (5) definitely not buy from each company. The two measures produced consistent findings, suggesting that the responses to the choice question were reliable. We coded participants' choice of companies as a dummy variable called "company", where 0 stands for preference for company A (positive CSR report) and 1 indicates preference for company B (CSR report including negative information).

Sincerity: We used a four-item, seven-point Likert scale (1 = Strongly Disagree to 7 = Strongly Agree), to measure perceived sincerity. Items referred to whether participants assumed a company (1) sincerely cares about child labor, (2) has genuine concerns about use of child labor, (3) is truly committed to eliminating child labor, and (4) is accurately stating the level of child labor. We created this scale by adding the last two items to a commonly used two-question evaluation of sincerity of motives (Yoon, Gurhan-Canli and Norbert, 2006). The Cronbach's alpha for this scale was 0.88.

Perceived Trustworthiness: We evaluated participants' trust in the two companies using a trust scale created by Saparito et al. (2004). The scale includes eight items, scored with a seven-point Likert scale. Cronbach's alpha for this scale was 0.87.

Attitude towards the Company: Participants' attitudes towards the companies were measured by using Priester and Petty's (2003) attitude scale. This scale consists of five semantic differential items rated on a seven-point scale. The participants were asked to indicate how they felt about a company by scoring it from –3 to +3 for each of five qualities: negative/positive, harmful/beneficial, foolish/wise, bad/good, unfavorable/favorable. We calculated the average of all responses to determine a participant's general attitude towards the company. Cronbach's alpha for this scale was 0.91.

c) Control Variables

Trust Propensity: We control for trust propensity, which refers to a person's disposition to trust in general. We measured this variable by using 3 items from Rotter's (1971) general trust scale on a Likert scale from 1 (Strongly Disagree) to 7 (Strongly Agree). Cronbach's alpha of the scale varied between 0.55-0.65 in the literature (Yamagishi, Cook & Watabe 1998) and in our survey the scale's alpha calculated was 0.89. Based on ANOVA analysis, we conclude that participants' trust propensity does not differ across manipulations ($F < 1$, *ns*). The mean level of participants' disposition to trust is 5.37 at a scale on which 7 represents a person that is very cautious while trusting other people. While comparing different scenarios we always controlled for this variable through ANCOVA analysis.

Attitude towards Child Labor: We measured participants' attitude towards child labor with a Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). Cronbach's alpha was 0.66. Based on ANOVA analysis, we conclude that participants' attitude towards child labor does not differ across manipulations ($F < 1$, *ns*). The mean level of participants' attitude towards child labor was 6.02, at a scale in which 7 represents being strongly against it. While comparing different scenarios we always controlled for this variable through ANCOVA analysis.

2.4. Results

The condition in which participants did not read a newspaper article and in which firm B does not mention its plans to eliminate child labor ('condition 1' in Table 2.1.) serves as a baseline scenario (1) in which we observe basic choice behavior, evaluating the effect of mere presence of negative disclosure and (2) which we can use as a reference point compared to which we can evaluate the effect of public awareness of an ethical issue and mentioning corrective actions in one's report.

a) Negative Disclosure & Preference to Buy

In Condition 1, Company A states to be completely child labor-free. Company B, however, acknowledges that it has discovered some instances of child labor in their suppliers' facilities. Company B expresses deep regret about this practice, and it commits to eliminating child labor from its business completely. It doesn't provide any further detail on the specific actions that it will take to accomplish this. Using a proportion test, we revealed that the percentage of participants who preferred to buy from Company A was significantly higher than those who selected Company B ($z = -4.43$; $p < 0.01$) (see Table 2.2.).

Table 2.2. Results of Condition 1

Scales of Condition 1	Company A	Company B	Statistical Parameter	*p*-value
Preference to Buy (proportion test)	85%	15%	- 4.43 (z-value)	**<0.01**
Sincerity (paired t-test)	4.67	3.96	- 2.01 (t-value)	**0.05**
Trust (paired t-test)	4.68	4.14	- 1.84 (t-value)	0.07
Attitude towards Company (paired t-test)	0.7	-0.06	- 2.02 (t-value)	**0.05**

Based on these results, we confirm our hypothesis (a) that consumers will prefer to buy from the company with the completely positive CSR information in a comparative context.

b) The Promise of Corrective Actions, Consumer Awareness and the Effect of Negative Information on Preference to Buy

We used a logistic regression to assess the effect of raising awareness and the formulation of corrective actions by the disclosing company on the effect of negative information on purchase preference. We study whether the probability that consumers will prefer the company, which discloses negative information, is affected by awareness and disclosure of a corrective plan by the company. Logistic regression analysis yields the following model for our data (see Table 2.3.).

Table 2.3. Logistic Regression Analysis on Preference to Buy

Predictor	β	Wald's χ^2	*df*	eβ (odds ratio)
Constant	- 2.11	2.53	1	0.12
Article (1= reading an article on the issue)	1.07	7.97	1	2.92
Plan (1=disclosing corrective actions)	2.07	29.66	1	7.89
Trust Propensity	- 0.13	0.65	1	0.88
Attitude towards child labor	0.17	1.27	1	1.19
Test	**χ^2**		***df***	
Overall Model Evaluation Omnibus Tests of Model Coefficients	44.14		4	
Goodness-of-fit Test Hosmer &Lemeshow	10.70		8	

Statistical Tests of Individual Predictors: The statistical significance of individual predictors is measured by Wald chi-square statistic. We observe that the log odds of a consumer's preference for a company disclosing negative information in its CSR report is positively related to consumers' awareness ($\chi^2(1) = 7.97$, $p < 0.01$) of the issue as well as disclosure of corrective actions ($\chi^2(1) = 29.67$, $p < 0.01$). When a newspaper article raises the awareness about the relevant ethical issue, the predicted odds of a consumer preferring to purchase from a company which discloses their ethical infraction is multiplied by 2.92 (exp(1.07)). When the company that discloses negative information also reveals its plan to eliminate those instances, the odds of consumers choosing this company is multiplied by 7,89 (exp(2.07)). Note that when the exp (b) is 1, the unit changes at the independent variable don't change the odds, while those greater than 1 increases the odds. We observe that our control variables, participants' trust propensity ($\chi^2(1) = 0.65$, $p = 0.42$) and their attitude towards child labor ($\chi^2(1) = 1.27$, $p = 0.26$) are not related to participants' decisions.

Overall Model Evaluation*:* The logistic model is said to provide a better fit to the data if it demonstrates an improvement over the intercept-only model (null model). Omnibus Tests of Model Coefficients gives us a Chi-square of 44.14 and is significant ($p<0.01$). Hence we can reject the null hypothesis that adding the variables article and plan to the model has not significantly increased our ability to predict the decisions made by our subjects. Our model's predictions are correct 115 out of 160 times, leading to a success rate of 71.9%. Given the success rate of predictions of the null model is 53.8% and the Omnibus Test, we conclude that adding the variables article and plan improves the model.

Goodness of fit Statistics: Goodness of fit statistics assesses the fit of a logistic model against actual outcomes. The Hosmer-Lemeshow test yields a p-value of 0.22, and hence is insignificant, suggesting that our model is a well fit to the data (The null hypothesis of a good model fit to data is tenable).

Given the results above, we confirm our hypotheses (b) & (c). Both the inclusion of a commitment to corrective actions and increased public awareness regarding the relevant ethical issue increases the odds that participants will prefer to buy from a firm who discloses the existence of ethical infractions.

c) Analysis of Preference to Buy Within and Among Conditions

Table 2.4. Analysis of Preference to Purchase Within Conditions

	Preference to Buy		**Proportion Test (baseline 50%)**	
	Company A	Company B	z-score	*p-value*
Condition 1	85.00%	15.00%	- 4.43	**<0.01**
Condition 2	42.50%	57.50%	0.95	0.34
Condition 3	67.50%	32.50%	- 2.21	**0.03**
Condition 4	20.00%	80.00%	3.79	**<0.01**
	Preference to Buy		**Proportion Test (baseline 15%)**	
	Company A	Company B	z-score	*p-value*
Condition 2	42.50%	57.50%	7.53	**<0.01**
Condition 3	67.50%	32.50%	3.10	**<0.01**
Condition 4	20.00%	80.00%	11.51	**<0.01**

To determine which company is better off in terms of purchase preference, we analyze the preference to purchase within each condition using a proportion test (see Table 2.4.). Our data reveals that significant preferences for either company within each condition except Condition 2 (low awareness and including corrective action). Additionally, if we take the purchase preference for Company B in Condition 1 (low awareness and no corrective action) as the baseline (15%), the proportion test demonstrates that in all other conditions this proportion is significantly higher (see lower half of Table 2.4.). Both public awareness of the ethical issue and the inclusion of a commitment to corrective action increase the appeal of company B. Only in the situation in which both are present, however, consumers become more likely to choose to purchase from company B than from company A. Finally, we also report the pair-wise analysis of conditions to provide further information (see Table 2.5.).

Table 2.5. Pair-wise Analysis of Preference to Buy Among Conditions

Percentage of Participants choosing Company A (with positive CSR information)	**Logistic Regression**		
	Change	**z-statistics**	***p*-value**
Conditions 1 & 2 (effect of plan disclosed by Company B)	- 42.50%	- 3.68	**<0.01**
Conditions 1 & 3 (effect of article)	- 17.50%	- 1.83	0.07
Conditions 2 & 4 (effect of article when plan disclosed by Company B)	-22.50 %	- 2.16	**0.03**
Conditions 1 & 4 (effect of article & plan disclosed by Company B)	- 65.00%	- 5.20	**<0.01**
Percentage of Participants choosing Company B (with negative CSR information)	**Logistic Regression**		
	Change	**F-statistics**	***p*-value**
Conditions 1 & 2 (effect of plan disclosed by Company B)	42.50%	**3.68**	**<0.01**
Conditions 1 & 3 (effect of article)	17.50%	1.83	0.07
Conditions 2 & 4 (effect of article when plan disclosed by Company B)	22.50%	2.16	**0.03**
Conditions 1 & 4 (effect of article & plan disclosed by Company B)	65.00%	5.20	**<0.01**

d) Sincerity, Trust and Attitude Towards the Company

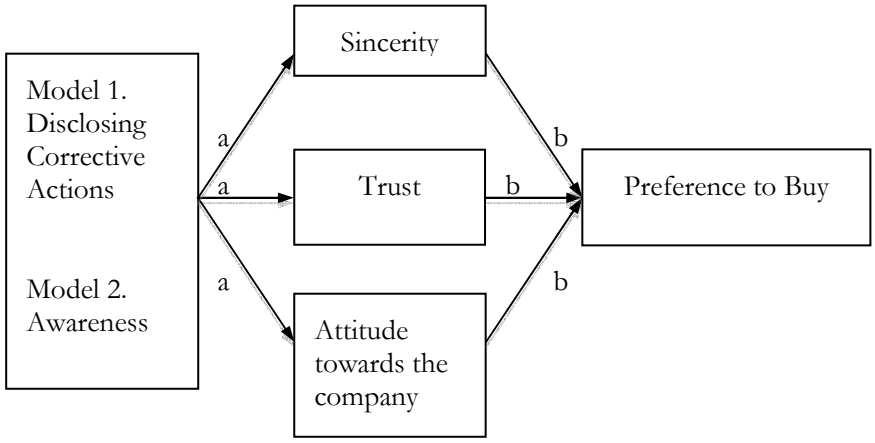
In this part, we investigate the mechanisms underlying participants' buying preferences when a company discloses negative information regarding its social and ethical responsibilities using two multiple mediation models. We look at whether sincerity, trust and attitude towards the company simultaneously mediate the effect of (a) public awareness and (b) disclosure of corrective actions on participants' preferences (see Appendix B.2. for descriptive statistics of proposed mediators).

We calculated the difference in ratings for Company A and B as an indicator of relative differences in sincerity, trust, and attitude towards the firms. An ANOVA analysis (see Appendix B.4. for the results) of the differences revealed that including a commitment to corrective actions has a significant effect on participants' perceptions of sincerity ($F(df=1) = 25.14$, $p<0.01$), trust ($F(df=1) = 15.59$, $p<0.01$) and attitude ($F(df=1) = 15.98$, $p<0.01$) for the disclosing company relative to the company with a completely clean report. Awareness of the ethical issue did not affect the relative ratings of sincerity ($F(df=1) = 3.39$, $p=0.067$) and attitude ($F(df=1) = 1.39$, $p=0.241$) but only of trust ($F(df=1) = 4.84$, $p<0.03$).

Logistic regression analysis reveals that relative perceived sincerity of the two companies ($Exp(B)=1.993$, $\chi^2(1) = 5.14$, $p < 0.03$) and the relative attitude towards the two companies ($Exp(B)=1.660$, $\chi^2(1) = 6.691$, $p < 0.02$) have a significant effect on purchase preferences, whereas trust does not (see Appendix B.3. for Logistic Regression results).

To further test the mediating effect of sincerity, trust, and attitude, we used a regression-based approach with bootstrap estimation of indirect effects by using relative differences (Preacher & Hayes 2008). We tested a mediation model for both independent variables separately.

Figure 2.1. Multiple Mediation Model with Commitment to Corrective Action as the Predictor



We first test the mediation model 1 for the effect of including a commitment to corrective action, specified in Figure 2.1. We observe that the "a" paths the for the three proposed mediators are all significant, while the "b" path is significant for the effect of relative sincerity and attitude but insignificant only for relative trust (see Table 2.6.). In addition, since the direct effect of disclosing such a commitment on buying preference is significant (z-value=3.72, $p<0.01$), we conclude that there is partial mediation only through the difference of perceived sincerity and attitude towards both companies (see Appendix B.5. for the macro output). On the other hand, bootstrapping methodology yields a different conclusion. We found the predicted indirect effect only for the difference of attitudes towards Company A and Company B. An examination of the specific indirect effects indicates that only the difference of attitudes towards the companies is a mediator, since its 95% CI does not contain zero (see Table 2.6.).

Table 2. 6. Mediation of the Effect of Commitment to Corrective Actions on Purchase Preference

A. Regression-based Approach					
IV to Mediators (a paths)					
		Coeff	SE	t-statistics	*p*-value
	Sincerity	12.47	0.26	48.32	**<0.01**
	Trust	0.85	0.22	37.90	**<0.01**
	Attitude	11.38	0.29	38.26	**<0.01**
Direct Effects of Mediators on DV (b paths)					
	Coeff	SE	z-statistics	*p*-value	Wald
Sincerity	0.56	0.27	2.04	**0.04**	4.15
Trust	0.01	0.28	0.03	0.98	0.01
Attitude	0.45	0.19	2.36	**0.02**	5.55
Total Effect of IV on DV (c path)					
	Coeff	SE	z-statistics	*p*-value	Wald
Corrective Actions	1.94	0.36	5.41	**<0.01**	29.25
Direct Effect of IV on DV (c-prime path)					
	Coeff	SE	z-statistics	*p*-value	Wald
Corrective Actions	1.58	0.42	3.72	**<0.01**	13.85
B. Bootstrapping Methodology					
					Bias Corrected 95% CI
Indirect Effects		Point Estimate	SE	Lower	Upper
	Sincerity	0.693	0.413	- 0.003	1.518
	Trust	0.006	0.322	- 0.672	0.641
	Attitude towards the Company	0.508	0.021	0.008	1.292
	TOTAL	1.207	0.441	0.462	2.063
Based on 5,000 bootstrap samples.					

Testing the mediation model 2 in Figure 2.1., the bootstrapping procedure suggests there is no indirect effect of awareness of the ethical issue on purchase preference. There is an effect of consumer awareness on trust levels, but no effect of trust on purchase preference. The total effect of awareness on preference for a company who discloses problems regarding ethical issues ($Z = 2.57$, $p = 0.01$), seems to be mostly a direct one.

2.5. Discussion

Empirical findings from our experiment confirm that it hurts the interest of a firm to uniquely report on ethical problems associated with their activities. Reflecting on the discounting principle, we observe that any positive effect of disclosing negative information in terms of perceived sincerity is smaller than the direct negative impact of consumers associating the firm with certain ethical infraction. It seems, therefore, that companies do not have an incentive to disclose their ethical issues. On the other hand, our data suggest that if disclosure of ethical infractions is accompanied by stating which corrective actions are taken to eliminate them, consumers won't punish those companies, and may even reward them. We see that participants at our study perceived a company that admits the existence of child labor practices, and commits to combat them, as more sincere and trustworthy than a firm that claimed to be child labor-free. In line with the environmental risk communication and signaling literature, we understand that consumers perceive voluntary disclosure of negative information as a costly signal and trust enhancer when the disclosure is accompanied by specific actions to solve it. This inferred sincerity then transfer to assumed sincerity regarding the firm's commitment to eliminate ethical violations. As a result, they develop a positive attitude towards that company. We conclude that it might be in a company's interest to disclose their problems given that they are ready to formulate how they will be resolved. That requires companies to be actually committed to eliminate the problem. Findings in

the literature on two-sided marketing seem to apply to the domain of CSR reports. Hence, two-sided CSR reports can be used as an effective marketing strategy given that the disclosing company is really committed to solve its ethical issues and will disclose how it will achieve to do that.

Our data further suggests that a company will benefit more from disclosure of corrective actions if the public is aware of the relevant ethical issue. Hence when a company voluntarily discloses negative CSR information, it would benefit from (a) disclosing the corrective actions they commit to and (b) support means to increase public awareness on the issue. However, we should note that awareness by itself only has a limited beneficial effect for firms who disclose negative information if corrective actions are not included.

We believe our study addresses a question that is very relevant in the climate in which companies currently operate. It suggests that it might not hurt the firms' interests to be straightforward regarding its involvement in unethical activities and may even benefit them. As the consequences of the activities of multinational corporations on society and on the environment become more damaging and apparent, and consumers become more aware of them, companies face more public scrutiny regarding their nature, magnitude, and of not being forthcoming about them. When a company's activities violate certain ethical standards, it essentially has two options: acknowledging it or denying it. If a company claims to be child labor free when it is not, it risks that, at some point, the truth will surface by an outside party. Such an event would be very harmful for a firm's reputation. In today's highly competitive global economy, we believe it is risky for companies to cover up their problems. Once trust is lost, it is very difficult to regain it. On the other hand, if a company that has violated and ethical standard is transparent about it, the firm may benefit from it if two conditions are satisfied (1) the report should include a commitment to and a description of how the firm will eliminate ethical violations

and (2) there should be a certain level of public awareness on the issue when a consumer should be able to compare the report with a report of a firm who claims to be free of any violation. In that case, companies will also have an incentive to raise the awareness of its consumers on their ethical problems rather than hiding them, because it enhances the benefits from negative disclosure.

We also believe that a firm's transparency regarding its social responsibility can result in more initiatives against certain ethical infractions. Potentially other companies within the same sector, as well non-profit institutions, might join forces to more effectively solve social challenges such as child labor when they can discuss their problems.

Given the discussion above, our study has implications for communication managers, policy-makers, and consumers that are committed to promoting transparency and sustainable business practices. It demonstrates that policy-makers should create public awareness on the ethical dilemmas that challenge companies. Consumers who are aware of social issues are more likely to reward companies that are transparent about their practices and commit to eliminate them. Our results also suggest that policy-makers should focus on helping consumers to compare and contrast companies' social responsibility behavior through reports and other assessment opportunities.

We believe that corporate disclosure of social responsibility infractions along with approaches to remedying the violations is a very important step towards promoting transparency in the business world. Our results suggest that we as consumers should focus on these issues as well. Reflecting on past purchases, 75% of participants believed that they have bought goods from businesses using child labor. Although negative information about a firm may, at first, alienate us, we

should be able to see beyond it. We as consumers should acknowledge the current ethical issues and our power in affecting them through our purchase behaviors.

Our results also have implications for companies that do work ethically; they could make a valuable contribution by providing information about how they operate. It would serve to validate their claims as well as creating a sample to other companies who would like to achieve the same.

2.6. Limitations and Further Research

The main limitations of our results relate to the context in which our study was conducted, in which consumers can compare two companies' CSR reports. Consumers generally read about CSR disclosures in a company's annual report or on its website. Thus, our study context is not very common. We do, however, believe consumers who want to compare information from different firms can and will do so. But, further research should be conducted to verify the effect of awareness and commitment to corrective action when a firm's report is read in isolation.

Another obstacle to generalizing our results to other settings is that we restricted our study to the disclosure of child labor practices. Our research question should be tested with other ethical violations. By its nature, child labor is an ethical problem that can be resolved if the corporate community wishes to do so. Whether our results apply to ethical issues that are somewhat intractable is a different question. For instance, a furniture company can't avoid affecting biodiversity negatively as it must use wood as raw material. The industry's adverse environmental impact is a certainty, although the magnitude and type of damage may vary. Such contexts should be investigated to reveal how disclosure of negative information affects them as well.

Another characteristic that potentially limits the applicability of our results is the claim that both companies offer similar products in similar price range. This scenario is realistic in the clothing industry as there are many brands consumer can choose between. Whether our findings apply to purchase decisions in a situation in which there are fewer choices remains a question.

Last, having selected experiment methodology, we risk that participants might not engage in the same cognitive process when they make actual purchase decisions as they used in responding to our questionnaire. However, we think that both the anonymity of the survey and the propensity for university undergraduate students to buy clothing facilitate the study participants' ability to imagine the actual purchasing process.

As mentioned above, a potential extension of this study is to replicate it with a different social issue. Of particular interested are consumers' responses to negative information regarding ethical violations that companies can minimize, but not totally eliminate, as biodiversity loss. Another avenue would involve exploring whether our results hold when participants are given CSR reports from comparable companies but at different points in time respond in a similar way. Also, it would be relevant to reveal how the effect of negative information changes without further contrast effect, when participants would read and evaluate a CSR statement of a single company. Another, yet more challenging extension would involve discovering other contexts in which companies are motivated to disclose their problems. Also, work still needs to be done on revealing the underlying mechanisms behind consumer responses to voluntary disclosure.

2.7. Conclusions

We create a context in which companies could disclose their social responsibility violations without incurring reputation damage. We conclude that a company could benefit from disclosing its ethical problems when (a) it discloses a detailed approach for solving it and (b) the public is aware of the particular ethical issue in a context that consumers can compare their statement with those of companies that claim to have no infractions to disclose.

Though the concept of a market in which companies can discuss their problem honestly seems unrealistic, firms that disclose negative information voluntarily encourage studies like ours. Gap's Social Responsibility Report in 2003 set an example of transparency by acknowledging child labor violations of its Vendor Code of Conduct (Gap Inc. 2003). Subsequently, in 2006 we observed that Timberland disclosed its operation's effects on environment and community with its "Our Footprint" program (Timberland 2006). Later on, Patagonia took the lead in transparency by acknowledging its organic cotton supplier produces 95% conventional cotton in "The Bad" section of its "Footprint Chronicles" (Patagonia 2008). We hope that our results in conjunction with firms that voluntarily disclose social responsibility violations motivate other companies in the direction of corporate transparency. Responsible business practices in this direction contribute to effectively mitigating the detrimental impacts of business on society and the environment.

3. DISCLOSURE STRATEGIES REGARDING ETHICAL INFRACTIONS

3.1. Introduction

Any company confronted with ethical issues faces a dilemma regarding the choice of being open about them or remaining quiet. Hence, to what extent should companies be transparent and truthful becomes crucial as they manage their public response to ethical controversies arising from their business activities, especially when this means revealing negative information. While extensive research has examined the effect of a company's positive social practices on stakeholders, less attention has been paid to the impact of corporate disclosures of ethical infractions. In this paper we investigate whether a firm necessarily incurs economic and market damage from the disclosure of ethical infractions. We suggest a number of conditions under which this is not the case. These findings could guide a firm's decision to resolve such dilemmas and encourage them to be less reluctant in communicating openly about questionable practices. For instance, should a chocolate company admit that there are issues of child slavery at cocoa plantations and, if it does so, is it harmful to admit the company is not able to guarantee a slave-free chocolate?

These questions are relevant in the context of Corporate Social Responsibility (CSR) communication, which increasingly takes a more prominent place in managerial thinking (Bhattacharya, Sen & Korschun 2008; Bronn & Vrioni 2001; Gelb & Strawser 2001; Greenfield 2004; Hartman, Rubin & Dhanda 2007; Kolk 2003; Maignan & Ralston 2002; McWilliams, Siegel & Wright 2006; Morsing & Schultz 2006; Pearce & Doh 2005; Vogue 2005). As issues of environmental protection, sustainability, climate change, working conditions, and labor rights in developing nations continue to gain more attention around the globe, many corporations have included and emphasized a CSR component in their mission

statement (Astous & Legendre 2009; CAFOD 1998; Elliot & Freeman 2005; Marymount University 1999). In parallel with the increasing investments in CSR communication, the idea that companies have a responsibility to have a positive impact on the social community in which they operate has become a common expectation of stakeholders (Bhattacharya & Sen 2004; Lichtenstein, Drumwright & Braig 2004). Likewise, previous research has shown that consumers respond favorably to corporations perceived to engage in socially responsible activities, expressed in increased consumer expenditures on goods and services identified as being ethical (Billock 2004; Co-operative Bank 2006; Dawkins 2004; National Statistics 2006). However, the transition to ethical practices and communication is not without its problems (Du, Bhattacharya & Sen 2010; Lindgreen, Swaen & Johnston 2009; Lindgreen & Swaen 2010; Maon, Lindgreen & Swaen 2009). Most companies hesitate to engage in a more active public discourse about the ethical challenges they face. Understandably, they prefer to disclose favorable statements. On the other hand, recent research has suggested that companies could benefit by voluntarily disclosing negative information regarding specific CSR issues in terms of consumer purchase preferences in a comparative context in which consumers are given simultaneously two different CSR statements (Aktar & Le Menestrel 2010).

The current study is focused on how consumer's willingness to pay (WTP) might be affected by the disclosure of negative CSR information in a non-comparative context and whether the factor of public awareness regarding a particular ethical issue moderates the effect of negative information disclosure on the consumer's WTP. Companies facing a potentially controversial CSR issue can respond in a number of ways. First, they can opt to avoid mentioning or disclosing information connected to the matter at hand (no disclosure). Second, they can acknowledge the existence of the issue and specify that they are not involved in any of those unethical activities arising from the issue (positive disclosure). Third, they may

acknowledge the issue, admit their role in it and commit to eradicate the problematic practices (negative disclosure). Within the context of cocoa production in West Africa and the surrounding ethical issues of child labor and slavery, we study the impact of voluntary negative disclosure in terms of the consumer's willingness to pay (WTP) for the product. Furthermore, we reveal whether public awareness of CSR issues moderates the relationship between voluntary negative social disclosure and WTP.

In order to answer our research questions, we dedicate the next section to the existing literature regarding the ethical consumption and WTP, corporate transparency and consumer awareness, the contrast effect in processing information, and the exploitation of child labor in the cocoa industry.

3.2. Literature

a) Ethical Consumption and WTP

With steadily growing frequency, individuals identify themselves as ethical consumers and choose to support companies that care about ethical aspects in their production and trading processes (Harrison, Newholm & Shaw 2005; Strong 1996). The literature defines ethical consumption as (1) the purchase of products that are produced and sold maintaining ethical standards and promoting issues such as environmental protection, human rights, and animal rights, (2) the boycott of companies that are involved in unethical practices, (3) post-consumption behaviors such as recycling, and (4) controlling excessive consumption (Auger et al. 2003; Cherrier 2007; Doane 2001; Harrison, Newholm & Shaw 2005; Jackson 2006; Newholm & Shaw 2007). In addition to philanthropic and altruistic motives, consumers may also choose to consume ethically to position themselves in an elite, distinct social class (Shaw & Newholm 2002).

The decision-making matrix for ethical consumption not only involves ethical aspects involved with the product but also extends to consumer buying factors of price, product quality, taste, brand familiarity, convenience, cultural values and family values (Harrison, Newholm & Shaw 2005). Hence, ethical consumption refers to a broader orientation considering ethical aspects associated with the manufacturing of the products as well as all others relevant to consumer buying behavior. Contingent upon specific factors, some consumers report that they also would be willing to pay a price premium for ethical products (Blend & Van Ravenswaay 1999; Loureiro & Lotade 2005; Maietta 2003; Trudel & Cotte 2008). A survey reveals that about 46% of Europeans are willing to pay more for ethical products (MORI 2000). However, research still is inconclusive as to the amount of premium consumers, in general, would be willing to pay for products identified as ethical. Loureiro and Lotade (2005) found that consumers, using a contingent valuation approach, are willing to pay a price premium of 2.4 to 3.3% for various types of fair trade coffee while another study indicated consumers are willing to pay a 10% price premium for the same product (DePelsmacker, Driesen & Rayp, 2005). Regarding other product categories, a United Kingdom survey found 25% of consumers would pay a premium up to 10% for ethically produced furniture, while 33% said they would pay a premium over 10%. A survey of consumers at a large multinational home improvement store found that 37% of consumers would be willing to pay a 2% premium for ethically sourced plywood (Devinney et al. 2006). The lack of consensus indicates that various factors – including specific ethical issues involved, industry market, cultural contexts, and the price category of the targeted product – all moderate the impact on consumers' WTP. For instance, a study by Elliott and Freeman (2005) revealed that participants indicated they would be willing to pay a 28% markup for a product costing $10US but only 15% more for one at $100US showing the effect of price category. Additionally, some research suggests that ethical products might appear more attractive if they are more

expensive. For some, such product may be used as status symbol to display their financial well being (Griskevicius, Tybur & Van den Bergh 2010).

Apart from these studies of stated preferences that report a significantly higher WTP for ethical products, revealed preference studies report relatively lower but similar percentages of premium that vary between 3%-18% again dependent on the context (Anderson & Hansen 2004; Bjorner, Hansen & Russell 2004). Studies that retailers conduct from their scanner data would reveal the most realistic analysis yet they are confidential. For instance, Home Depot reports that 37% of its customers would be willing to pay a 2% premium for ethically sourced plywood (Devinney et al. 2006). In line with revealed preference data, the market share of ethical products is relatively lower than reported by survey studies (MacGillivray 2000). This reveals that consumers' ethical intentions don't always translate into ethical consumption (Auger & Devinney 2007; Carrington, Neville & Whitwell 2010). Previous studies explain this difference pointing at the complexity of the actual buying decision process, which requires consumers to jointly evaluate all attributes of the product such as price, brand familiarity, convenience rather than only the ethical attribute (Boulstridge & Carrigan 2000; Carrigan & Attalla 2001; Crane 2001; Kollmuss & Agyeman 2002; Morrell 2005). In addition lack of availability of ethical products, skepticism towards ethical claims and lack of information is highlighted as other possible reasons of this gap (Carrigan & Attalla 2001; National Consumer Council 1996; Roberts, 1996a). Apart from the consumers who intend to consume ethically, a recent study summarizes consumers' justifications not to behave ethically under 3 main categories: (1) personal costs of ethical consumption are greater than its personal benefits (2) ethical aspirations are less important than economic development of countries and (3) the thought that it is the governments' duty to watch out for ethical issues not the individual consumers' (Astous & Legendre 2009; Eckhardt et al. 2006).

The flipsides are the extent to which consumers' WTP decreases if they decide to punish irresponsible business practices (Trudel & Cotte 2008). A number of studies demonstrate a negativity bias meaning consumers' punishment tends to be stronger than their rewarding behavior in terms of WTP (Dean 2004; Henard 2002; Trudel & Cotte 2008). Consumers seem more receptive to information regarding irresponsible practices as negative information is considered more informative, diagnostic, unique, unexpected and hence, more memorable (Henard 2002). One study showed that 67% of European and US consumers claim to have boycotted a food, drink or personal care product on ethical grounds (Datamonitor 2005). Another indicated the publicized cases of fraud on food packaging – such as incorrect claims regarding product origin, organic farming or the product being free of genetically modified ingredients – would significantly decrease WTP (Ravilious 2006). Likewise, information overload and consumer confusion also can decrease WTP (Titus & Bradford 1996). While providing information on the ethics of their business practices, companies should avoid confusing or alienating consumer perceptions and attitudes regarding their existing brands and should be mindful that there is, at least, a modest relationship between intentions and buying decisions (Green 2003; Hunt & Vitell 1993; Shaw & Clarke 1999; Vitell, Singhapakdi & Thomas 2001).

Other research streams have attempted to create a profile of the socially responsible consumers. These studies fail to reach to a consensus, however, regarding the typical characteristics that ethical consumers share (DePelsmacker, Driesen & Rayp 2005). Demographics remain the most widely used basis of classification, yet their significance remains debatable as the literature provides contradictory findings. Some studies associates socially responsible consumers with high income, education and social status (Carrigan & Attalla 2001; Maignan & Ferrell 2001; Roberts 1996a). Cowe and Williams (2000) state that consumers that are middle-aged and in middle class are more likely to consume ethically. Another study concludes that age,

income and employment status weren't determinants of socially responsible consumers, yet gender was (Dickson 2000). Then again, other findings suggest that gender wasn't a predictor of ethical consumption (MORI 2000; Sikula & Costa 1994; Tsalikis & Ortiz-Buonafina 1990; Witkowski & Reddy 2010). Two studies report that education is the only demographic variable that predicts consumer's WTP for ethical products (Devinney et al. 2006; McGoldrick & Freestone 2008).

In contrast with demographic variables, other predictors of ethical consumer behavior have received relatively little attention. Scarce research in this direction finds that individual's personal pro-social values predict ethical consumption behavior (DePelsmacker, Driesen & Rayp 2005; Dickson 2000; Pepper, Jackson & Uzzell 2009). Also, perceived consumer effectiveness, liberalism, idealism, social engagement behaviors and alienation have been reported to have significant impact (Robert 1996a & 1996b; Witkowski & Reddy 2010).

b) Corporate Transparency and Consumer Awareness

In addition to the studies on ethical consumption, another line of research related with our study is the corporate transparency literature (see, e.g. Hebb 2006; Hess 2007 & 2008). As disclosing negative information likely is counterintuitive for companies, CSR reports, in general, include primarily just positive information (Brown and Deegan 1998; Cho and Patten 2007; Deegan and Rankin 1996; Gozali, How & Verhoeyen 2002). However, the ideal state of being transparent should refer to information disclosure not only on positive activities but also to information about a company's ethical infractions.

In this context recent studies have explored the impact of corporate environmental transparency on consumers' behavior. This issue is close to our research since environmental transparency can be associated with the disclosure of environmental damage caused by corporate activities. In particular, it is possible to identify two

main streams of research concerning this issue. The first argues that greater informational transparency would not improve favorable consumer behavior, as consumers would use the information to put pressure on the companies to act and reconcile the infractions (see, e.g. Bansal & Kistruck 2006; Hendry 2006). On the other hand, several studies reveal greater informational transparency would improve favorable consumer behaviors as such transparency is considered a requirement for corporate social accountability, which, in turn, leads to consumer trust (Reynolds & Yuthas 2008; Tapscott & Ticoll 2003). Supporting this second line of argument, a recent empirical study by Vaccaro and Echeverri (2010) concludes that informational transparency impacts consumer behavior positively as perceived company transparency predicts pro-environmental behavior.

An important issue, which emerges in the corporate transparency literature, concerns awareness. Joergens (2006) states that consumers can't be sure whether they consume ethically as based on the lack of information both regarding the product and the result of their choices. Therefore, increasing consumer awareness becomes a prerequisite for increasing ethical consumption (Barnett et al. 2005; Lee & Shin 2010; Wigley 2008). However, Vaccaro and Echeverri (2010) reveal that consumer awareness on environmental issues, even though it improves a consumer's pro-environmental behavior, is negatively related with the perceived transparency of companies. Hence, in addition to the studies discussing the positive impact of awareness on a consumer's pro-environmental behaviors (Christman & Taylor 2002, Clark, Kotchen & Moore 2003), Vaccaro and Echeverri (2010) suggest raising awareness on environmental issue is a difficult task, which requires a medium-term to long-term investment, careful analysis of consumers' expected level of information and which should be supported by the national educational system (Roberts 1996b). The most common ways to increase consumer awareness are print and visual media of which the latter has been found to be more effective in persuading the audience and changing their attitudes (McLuhan 1994, Nasser &

McEven 1976; O'Connell et al. 2004). In addition, the literature highlights the potential of information disclosure through information and communication technologies such as Internet-based interactive communication channels (e.g., blogs, social networks and company webpage) in achieving more effective communication (Vaccaro & Madsen 2009).

c) Contrast Effect

One must also account for the presence or absence of a contrast effect in assessing the role of companies' negative social disclosure on consumer's WTP (Aktar & Le Menestrel 2010). This effect occurs when an object's evaluation moves away from a point of reference as opposed to assimilation that occurs when it moves towards a desired point of reference (Meyers-Levy & Sternthal 1993; Sherif & Hovland 1961). Applied to our context, consumer evaluation of a firm who voluntarily discloses negative information would be positively affected when the consumer can compare that message with another message containing neutral social disclosure (i.e., no mention of any social issues) and negatively affected when the consumer compares it with a message containing disclosure of ethically responsible activities (Levin, Davis & Levin 1996; Nam & Sternthal 2008). In fact, the positive effect of raised awareness by a message containing information about unethical business practices is likely to outweigh any negative contrast effect with positive social disclosure (Aktar & Le Menestrel 2010).

d) Child Labor Exploitation at Cocoa Plantations

Among the most extensively documented ongoing ethical controversies is the use of child labor and child slavery in the companies associated with cocoa production. Confirmed reports indicate there may be as many as 280,000 children being forced to work in severe conditions, cutting and extracting cocoa seeds, and perhaps as many as 200,000 in the Ivory Coast alone (International Labour Office:

International Programme on elimination of Child Labour (IPEC) 2005). Human rights and labor groups from around the globe have consistently called upon cocoa harvesting units and plantation owners to revise their labor practices and to employ adults at reasonable wages who are trained professionally to work safely in these companies (Bass 2004, pp. ii,4; Off 2007, p.211). Abandoning the use of child labor would also mean stimulating employment as well as ending the exploitative practices of slave trafficking (Elliott & Freeman 2005).

While some children in Third World countries voluntarily go to work, many are forced into labor at the risk of suffering physical punishment and psychological abuse (Dunaway 2003, p. 135; Drachman & Shank 2003, pp. 152-159). In the cocoa plantations, most of the child laborers are purchased from slave traffickers in a one-time bulk fee arrangement and are rarely, if ever, paid directly for their work. Provided only with basic amenities of food and shelter, plantation laborers usually will work for twelve or more hours with little time for sufficient rest, meals, or water breaks. While some are able to leave by the time they reach their mid-teen years, most child laborers have little or no option of ending their indentured service for fear of being abandoned and deported out of the country to uncertain conditions for survival (Kielland & Tovo 2006, pp. 154-156).

Despite a multitude of reports about the child labor problem at cocoa plantations, most of the chocolate manufacturing conglomerates have ignored widely circulated petitions calling for the placement of a "slave-free" mark on product wrappers. Spokespersons for the manufacturers often have adopted the strategic tactic of not disclosing any information or disclosing they had nothing to do with purchasing cocoa harvested and processed by means of forced labor. The Chocolate Manufacturers Association lobbied successfully to stop a proposed bill in the U.S. Congress that would have forced the companies to put a "slave-free label" on their products, claiming that such legislation would trigger a consumer boycott of all

products from the Ivory Coast (Chatterjee 2001, pp. 21-23). One of the bill's sponsors, U.S. Representative Eliot L. Engel from New York, said legislation was needed as a corrective because while the chocolate manufacturers had the power to guarantee an end to exploitative labor practices, they refused to do so because the practices, in effect, had strengthened their financial and market positions in an intensely competitive industry (Chatterjee 2001, pp. 21-23).

In 2008, reports emerged that Cargill, a major conglomerate manufacturer of cocoa products that have a strong brand presence in the U.S., had been complicit in child labor (Parenti 2008). Cargill responded by enacting a loan program for Ivory Coast farmers and workers but there were reports that those individuals who could not satisfy their outstanding debts were either jailed or conscripted to cultivate cocoa on their farmland or forced to work at the company's farms along with their families (Parenti 2008). The company denied the allegations but was assessed a judgment against it based on the testimony of slave workers who had been impacted by the arrangement. In calling it a serious misinterpretation, the company's spokespersons suggested that farm owners had signed special contracts as per stated within Cargill's CSR documents which had explicitly denounced the use of slavery in production (Parenti 2008).

More recently, for many chocolate manufacturers, the ethical dimensions of environmental issues of 'going green' and sustainability appear to have eclipsed the focus on child slave labor in terms of CSR initiatives (Ethics World 2009). Cadbury's CSR goals cite a 'fair trade' brand-mark partnership, which permits the company to purchase more cocoa directly from farmers to their economic benefit (Ethics World 2009). Meanwhile, Nestle did not mention the slavery issue in a recent CSR report preferring to concentrate on issues involving water conservation and obesity. Similarly, the CSR reports of other chocolate manufacturers only mentioned 'slavery' in limited text citations, indicating their preference to keep the

issue off the public radar (Ethics World 2009). These combined elements from the literature result in the following hypotheses.

3.3. Hypotheses

Earlier research indicated that companies could benefit from voluntarily disclosing negative information regarding their CSR issues in terms of consumer buying preference, if consumers could compare that information with positive CSR statements (Aktar & Le Menestrel 2010). As a result, the company is ideally positioned for proactive responses in avoiding future ethical infractions and keeping consumers apprised of the ethical issues involved in their industry. The current study investigates consumer responses to a single CSR message. We evaluate the impact of negative social disclosure when the consumer does not have immediate access to other messages they can use as references. Specifically, we observe how disclosures regarding ethical practices influence consumer WTP.

In a previous study, Aktar & Le Menestrel (2010) reveal that without including a statement in which the firm commits to correct unethical practices they have been involved in and reveal its corrective actions, voluntary disclosure of negative information would not bring about any positive returns. In seeking the balance between business opportunities (i.e., profit) and strategic social practices, CSR managers might look to stakeholders (i.e., consumers, citizen activists, regulators, media, etc.) for the right clues that stimulate incentives for resolving conflicts and mismatches between social welfare and business goals within a particular organization. If a company that voluntarily discloses negative CSR information is truly committed to eliminate the social problem and is transparent regarding how it will do so, either with the intent of resolving the problem and/or of minimizing the potential risk of negative publicity that could arise from no or wrong disclosure, the following hypotheses are proposed:

(1) Consumers' WTP will be higher for the companies with a positive CSR message relative to companies that don't mention anything regarding the CSR issue.

(2) Consumers' WTP will be equal for companies that voluntarily disclose negative CSR information relative to companies with positive CSR disclosure.

(3) Public awareness of the relevant CSR issue moderates the effect of disclosure strategy on consumers' WTP. When the public awareness of the relevant CSR issue is higher, the effect of disclosure of negative information on WTP is larger than in the case of low public awareness.

(4) Types of disclosure and awareness significantly impact consumer perceptions of sincerity, trust, and attitude as directed towards the company, which mediate the effects on WTP.

3.4. Methodology

a) Participants and Design

Table 3.1. Experimental Design

	No Disclosure	Positive Disclosure	Negative Disclosure
No Video	Condition 1	Condition 2	Condition 3
Video	Condition 4	Condition 5	Condition 6

One hundred and twenty undergraduate students of a large university in Spain anonymously participated in the study in exchange for money. Twenty participants were assigned to each experimental condition. The sample comprised of 75 female (62.5%) and 45 (37.5%) male students, whose overall average monthly spending was 843.87 € (SD = 200.81) with an average age of 20.79 (SD = 2.06).

The experimental design included two between-subjects factor (See Table 3.1.). We manipulated public awareness (watching a video clip on child labor in the chocolate industry versus no video) and communication strategy (no disclosure, positive disclosure and negative disclosure). The video that half of the participants viewed was an 18-minute version of a daily television/radio news program as broadcast at http://democracynow.org (Democracy Now 2008). The edited version used for the experiment comprised actual clips from the organisation's original video. Video content includes (1) commentary of a journalist who claims that chocolate companies do not allocate any resources to improve child labor conditions and addresses slavery issues in the Ivory Coast and (2) responses from spokespersons representing Cargill and The Chocolate Manufacturers Association who are accused of using child labor along with (3) an executive from another chocolate company discussing how his company achieves its products to be child or slave labor free.

Regarding communication strategy, equal proportions of our partipicants were randomly given one of the following three statements, supposedly published by a firm in the chocolate industry: (1) no disclosure statement in which there is no mention of child labor and slavery issues as they pertain to cocoa production, (2) positive disclosure statement in which the issues of child labor and slavery are acknowledged but the company states explicity that its products are free and clear of any violations and (3) negative discosure statement in which issues of child labor and slavery are acknowledged and the company cannot guarantee that its products are free from those concerns, but it outlines plans to assure that its products are free of all forms of exploitative labor.

b) Procedure

At the beginning of the session, all participants, regardless of experimental condition, were asked to offer their best estimate of the typical price of a 125 gram chocolate bar of their preference (i.e., milk or dark). This measure served as a

baseline to control for individual's price estimates for a regular bar of chocolate. Participants subsequently answered questions regarding their chocolate consumption habits. Then, participants assigned to the video conditions (4, 5 and 6) watched the video. All participants, whether they watched the video or not, then were asked to read one of the following relevant three CSR messages about a fictional chocolate manufacturer company (X) (See Appendix C.1. for complete instructions).

No disclosure

Our Chocolate

Experience our delicious chocolate crafted by Master Chocolatiers by refining the finest cocoa beans into an irresistibly smooth chocolate. Our Chocolatiers have dedicated over 50 years of passion to create the most delicious chocolates for you.

Positive disclosure

Our Chocolate

Experience our delicious chocolate crafted by Master Chocolatiers by refining the finest cocoa beans into an irresistibly smooth chocolate. Our Chocolatiers have dedicated over 50 years of passion to create the most delicious chocolates for you.

Our Responsibilities

We source great majority of our cocoa from West Africa, which produces 75% of the world's cocoa in Ghana, Ivory Coast, Nigeria and Cameroon. In some cases at the Ivory Coast, it has been reported that conditions of workers including children at cocoa farms are so bad that the cocoa workers can be considered slaves according to the definition of slavery issued by the UN.

For us, one person being exploited is too many. This is why we work very hard to be sure that our chocolate is free of child labor and any form of exploitation. As a chocolate company, we feel that the people in the cocoa fields deserve honest wages for their work and it is our responsibility to

provide that. To make sure that no worker is subject to exploitation, we pay up to 20% more to our suppliers with the requirement that their working conditions reach our standards.

Therefore, our consumers can truly enjoy our delicious chocolate as it is harvested without any form of exploitation.

Negative disclosure

Our Chocolate

Experience our delicious chocolate crafted by Master Chocolatiers by refining the finest cocoa beans into an irresistibly smooth chocolate. Our Chocolatiers have dedicated over 50 years of passion to create the most delicious chocolates for you.

Our Responsibilities

We source great majority of our cocoa from West Africa, which produces 75% of the world's cocoa in Ghana, Ivory Coast, Nigeria and Cameroon. In some cases at Ivory Coast, it has been reported that conditions of workers including children at cocoa farms are so bad that the cocoa workers can be considered slaves according to the definition of slavery issued by the UN.

For us, one person being exploited is too many. Even if we work on it very hard, we still cannot be sure that our chocolate is completely free of child labour and other forms of exploitation. As a chocolate company, we feel that the people in the cocoa fields deserve honest wages for their work and it is our responsibility to provide that. We are determined to ensure that no worker is subject to exploitation. That is why we pay up to 20% more to our suppliers in order for their working conditions reach our standards. We are working hard to trace our suppliers and have them following our principles.

We hope that soon our consumers will be able to truly enjoy our delicious chocolate given that it will be harvested without exploitation.

Following the exposure to the CSR message, participants were asked to assign the price they would willingly pay for six chocolate products from this particular chocolate company. Subsequently, participants completed measures for WTP, perceived consumer effectiveness (PCE), sincerity, trust, and attitude towards the company (See Appendix C.1. for complete instructions).

c) Measures

WTP: We asked each participant how much they would be willing to pay for a 125 gram chocolate bar of their preferred taste (i.e., milk or dark), produced by the fictional chocolate company.

PCE scale: The PCE scale consisted of four items, measured on a 7-point Likert-Scale, ranging from 1 (strongly disagree) to 7 (strongly agree) (adapted from Straughan & Roberts 1999). The scale (Cronbach's alpha = 0.78) measured individual perceptions of how much impact they can have, with their purchase decisions, to motivate firms to resolve the problem of child labor.

Also included were measurement scales of consumer perceptions of sincerity (Yoon, Gurhan-Canli & Nobert 2006), trust (Saparito, Chen & Sapienza 2004) and attitude as directed towards the company (Priester and Petty 2003) to observe if and how these measures would be affected by disclosure type and awareness.

Control variables: To control for potential mood effects of our awareness manipulation, we included a five items scale to measure mood (Pham 1998). Additionally, we measured participant's prior awareness by seven items and attitude regarding child labor practices at cocoa production by three items that both we created on a Likert scale from 1 (Strongly Disagree) to 7 (Strongly Agree). We controlled for participant's trust propensity by using 3 items from Rotter's (1971)

general trust scale. We also collected information about age, gender, and income level (See Appendix C.2. for all scale reliabilities).

3.5. Results

Outlier analysis of WTP responses suggested that the data of one participant should be excluded, for being more than 3 standard deviations away from the mean. Excluding this participant did not change any of the results. Then we analyzed which of our control variables responded to our experimental manipulations. We ran a multivariate ANOVA, with public awareness and disclosure type as independent variables. We found a significant effect of disclosure type on attitude towards child labor exploitation ($F(2,113)=3.17$, $p=0.046$) and perceived consumer effectiveness ($F(2,113)=4.91$, $p<0.01$). Participants in no-disclosure condition ($M=5.65$, $SD=1.48$), who read a message without any disclosure about child labor practices, had a less negative attitude towards child labor than those in the positive disclosure group ($M=6.27$, $SD=0.90$) and negative disclosure conditions ($M=6.14$, $SD=1.02$). Any kind of voluntary social disclosure, negative ($M=5.46$, $SD=0.75$) and positive ($M=5.34$, $SD=0.88$), led to higher perceived consumer effectiveness relative to no disclosure ($M=4.89$, $SD=0.95$). Public awareness had a significant effect on mood ($F(1,113)=51.13$, $p<0.01$) and a marginally significant effect on attitude toward child labor exploitation ($F(1,113)=3.53$, $p=0.06$). Those who watched the video ($M=3.90$, $SD=0.99$) reported a worse mood than those who did not ($M=5.12$, $SD=0.85$). In addition, those who watched the video had a less tolerant attitude towards child labor ($M=6.22$, $SD=1.08$) relative to those who did not watch the video ($M=5.82$, $SD= 1.25$). The observed interaction of disclosure type and awareness didn't affect control variables.

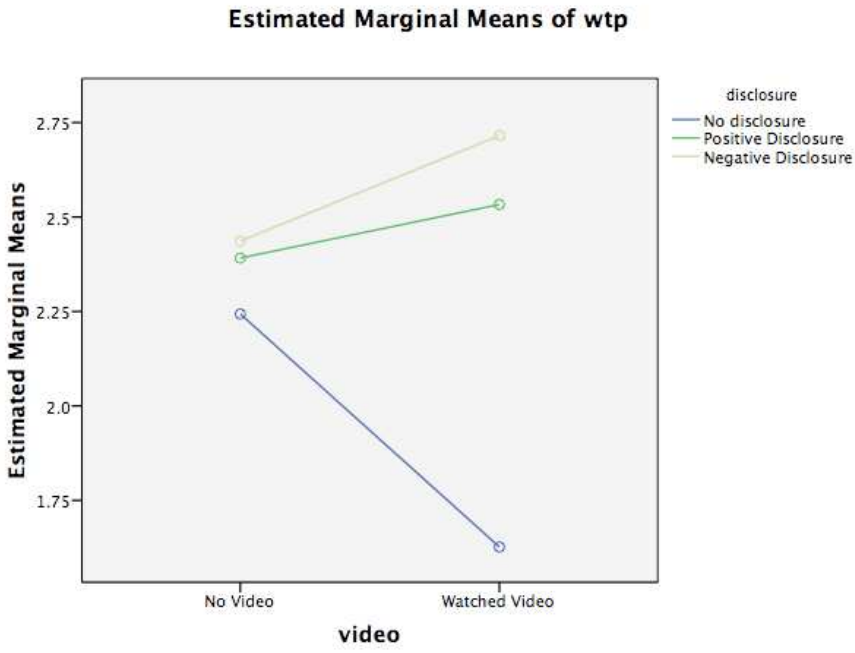
Then, we evaluated which of those variables that did not respond to our manipulations, is correlated with the WTP. We found that participant's prior

awareness, trust propensity and mood were not significantly correlated with WTP, whereas attitude towards exploitation (r=0.21, p<0.03), perceived consumer effectiveness (r=0.243, p<0.01) and estimated typical price of a chocolate bar (r=0.558, p<0.01) were. Variables with significant correlations were included in the analysis as covariates.

An ANCOVA was generated to determine the effect of disclosure type and awareness of the ethical issue on WTP, controlling for estimated typical price, mood, perceived consumer effectiveness and attitude toward exploitation (See C.3. for parameter estimates). The overall ANCOVA was significant (F(9, 109)=15.75, p<0.01, partial η^2=0.565, power=1.00). The covariates estimated typical price (F(1, 109)=83.81, p<0.01), mood (F(1, 109)=4.32, p=0.04) and perceived consumer effectiveness (F(1, 109)=16.78, p<0.01) had a significant effect while attitude toward exploitation (F(1, 108)<1) did not. WTP was higher for participants who had a higher estimated price of a regular 125 gr. chocolate bar. Interestingly, those who reported a higher level of PCE also mentioned a higher WTP. Lower mood scores were related to higher levels of WTP.

We found a main effect of disclosure type (F(2, 109) = 9.06, p<0.01), but not of public awareness (F(1, 109)<1). This main effect was qualified by a significant interaction between disclosure type and public awareness (F(2, 109)=4.44, p<0.02, See Figure 3.1.). Based on these results, we confirm our Hypothesis 3, which states that awareness moderates the effect of disclosure of negative information on WTP. To probe the interaction, we tested pair wise contrasts of the estimated cell means.

Figure 3.1. WTP by disclosure and awareness



Regarding participants whose awareness was not raised (i.e., those in the no video condition), there was no effect of disclosure type on WTP, rejecting our hypothesis 1 and accepting our hypothesis 2. Participant's WTP in the no disclosure (M=2.31, SD=0.65), positive disclosure (M=2.41, SD=0.84) and negative disclosure conditions (M=2.41, SD=0.94) did not differ significantly (F(2,52)< 1) (See Appendix C.4. for parameter estimates).

Regarding participants who did watch the video, however, WTP was higher if they had read a CSR statement including negative disclosure (M=2.72, SD=0.95) and positive disclosure (M=2.50, SD=1.25) than in the case of reading a statement in which the firm did not disclose any information (M=1.59, SD=0.61, F(2,53)=10.39,

p<0.01). For viewers of the video, there was no difference regardless of whether the disclosure statement was positive or negative (See C.5. for parameter estimates).

For those participants who read a CSR message in which there was no disclosure regarding child labor, the WTP of those who were made aware (M=1.54, SD=0.61) of the existence of child labor was lower than for those who were not (M=1.94, SD=0.65, F(1,34)=4.76, p<0.04) (See C.6. for parameter estimates). For those participants who read a CSR message in which the firm states it is free of any involvement with child labor exploitation (i.e., positive disclosure), WTP didn't differ significantly (F(1,33)=1.11, p=0.30) for participants who watched the video (M=2.76, SD=1.25) relative to participants who did not (M=2.38, SD=0.84) (See C.7. for parameter estimates). Likewise, for those participants who read a CSR message in which the firm did disclose but could not guarantee that its products were free of child labor exploitation (i.e., negative disclosure), awareness does not have an effect (F(1,34)<1) on WTP (video viewers M=2.69, SD=0.95 vs. not video viewers M=2.64, SD=0.94) (See C.8. for parameter estimates).

A subsequent ANCOVA was generated to gauge the collective effects of disclosure and video exposure upon sincerity, trust, and attitude towards company while controlling for typical price, mood, consumer effectiveness, and attitude toward exploitation. Based on the following analyses, Hypothesis 4 can be accepted in partial form.

Sincerity: The only significant predictor of sincerity was disclosure type (F(2,109)=6.67, p<0.01). A priori pair wise comparisons of the estimated marginal means of the disclosure variable showed that respondents in the no disclosure condition evaluated the firm as significantly less sincere (video M=3.43 & SD=1.02, no video M=3.90 & SD=0.93) than positive disclosure respondents (video M=4.49 & SD=1.17, no video M=4.67 & SD=1.03) for both video (p<0.01) and no video

conditions (p=0.04). Participants in the negative disclosure condition evaluated the firm as significantly more sincere (M=4.17, SD=1.04) than in the no disclosure condition (M=3.43, SD=1.02) but only if participants viewed the video (p<0.02). Awareness does not appear to have any direct impact on sincerity, but it only makes the difference between the no disclosure and negative disclosure groups statistically significant. However, there was no significant difference between the sincerity scores of positive and negative disclosure respondents.

Trust: As in the case of sincerity, only disclosure type was a significant predictor of trust (F(2,109)=8.07, p<0.01). A priori pair wise comparisons of the estimated marginal means of the disclosure variable showed that participants in the no disclosure condition evaluated the firm as significantly less trustworthy (video M=3.36 & SD=1.03, no video M=3.77 & SD=0.82) than participants in the positive disclosure condition (video M=4.45 & SD=0.99, no video M=4.384 & SD=0.82) for both video (p<0.01) and no video conditions (p=0.02). Negative disclosure respondent trust scores were (M=4.31, SD=1.08) significantly higher than in the no disclosure group (M=3.36, SD=1.03) but only if participants viewed the video (p=0.01). Without the video, the trust scores for the negative disclosure group (M=4.20, SD=0.88) were marginally higher (p=0.07) than the no disclosure group (M=3.77, SD=0.82). As before, awareness does not appear to have any direct impact on trust but it only makes the difference between the no disclosure and negative disclosure groups statistically significant. However, there was no significant difference between the trust scores of positive and negative disclosure respondents.

Attitude towards the company: Only disclosure type was a significant predictor (F(2,109)=4.80, p=0.01) of attitude towards company. A priori pair wise comparisons of the estimated marginal means of the disclosure variable revealed that when respondents viewed the video, no disclosure respondents (M=4.18, SD=1.31) had a significantly lower score (p<0.01) for attitude towards the company

than positive disclosure (M=5.25, SD=1.33) respondents. Scores were marginally higher (p=0.09) for negative disclosure respondents (M=5.09, SD=1.30). Disclosure type did not create any significant difference in attitude score without awareness. Also, there was no significant difference between positive and negative disclosure respondents, regardless of awareness.

In distilling if there was any statistical meaningful relationship of WTP with sincerity, trust, attitude towards company, a correlation analysis was generated, showing sincerity (r=0.21, p=0.02), trust (r=0.20, p=0.03) and attitude towards company (r=0.24, p=0.01) are all significantly correlated with WTP. A multiple regression analysis was subsequently generated to see whether disclosure, awareness, sincerity, trust and attitude towards company were statistically powerful predictors of WTP, with the analysis controlling for covariates of typical price, consumer effectiveness, attitude towards exploitation and mood.

Three covariates emerged as significant predictors of WTP: typical price (t=8.46, p<0.01), mood (t=-2.26, p=0.03) and consumer effectiveness (t=4.37, p<0.01). The collective set of covariates comprised a significant predictor of WTP, explaining, as a group, 42.7% of the variance in WTP (Adjusted R-square=0.43), F(4, 114)=22.95, p<0.01). The set of predictors collectively accounted for a significant additional proportion of the variance with an adjusted R-square change=0.11 (F(6, 108) change 5.537, p<0.01). Only disclosure was a significant unique predictor of WTP. Regression indicated that positive disclosure respondents were willing to pay 0.36 Euros (t=2.11, p=0.04) more than no disclosure respondents and that negative disclosure respondents were willing to pay 0.53 Euros (t=3.23, p<0.01) more than no disclosure respondents. In summary, video, sincerity, trust and attitude towards company are not significant predictors of WTP.

The interactions between positive / negative disclosure and awareness also were show to contribute a unique proportion of the variance above all covariates and predictors, with an Adjusted R-square change of 0.02 ($F(2, 106)$ change 3.441, $p=0.04$). This suggests that there is an underlying significant interaction between disclosure and video as shown previously by pair wise comparisons of each condition's WTP by disclosure type and awareness.

3.6. Discussion

We tested how communication affects consumer's responses for firms, which are active in an industry struggling with an ethical issue. The results of our study suggest that if public awareness regarding the certain ethical issue is limited, neither positive nor negative voluntary disclosure of social issues has a substantial effect on consumer's WTP. Therefore, if a manager's sole objective is to improve consumer's WTP, it does not matter whether the firm discloses her practices regarding these ethical issues. In particular, it is very important that negative disclosure does not a cause a decrease in WTP. This is an interesting finding, considering the fact that consumers' attitudes towards the firm *should not* be the sole objective of corporate communication. Transparency and making information freely available are important in a society, which lays the burden of responsibility for the ethical implications of one's behavior with the individual.

These results suggest that firms should not hesitate to disclose publicly their ethical dilemmas or predicaments, given they are truly committed to eliminating them (Aktar & Le Menestrel 2010). Additionally, positive disclosure leads consumer perceptions of higher sincerity and trust in that company relative to not disclosing. Also, both positive and negative disclosure results in higher levels of PCE, which is one of the main determinants of ethical consumer behavior (Roberts 1996b). Although these effects do not directly translate into a larger WTP, they are likely to

improve consumer loyalty, brand image and other desirable long-term effects.

When awareness is high, results indicate that both positive and negative voluntary social disclosure, lead to higher WTP than no disclosure. In this case, firms seem to be better off regarding their business practices, as consumers seem willing to punish those companies that do not disclose any information. Awareness also enhances perceptions of sincerity and trustworthiness of companies engaged in negative social disclosure, which, in turn gives them further incentive to promote awareness. Another important result is the predictive power of PCE. This emphasizes the relevance of a consumer empowerment component in campaigning on social issues. If consumers believe that each euro they spend makes a difference, they are more likely to incorporate considerations of an ethical dimension into their consumption decisions.

The findings contribute to the growing body of literature on ethical consumerism by demonstrating that transparency on ethical infractions might benefit firm performance in a specific context (i.e., high awareness, no contrast), where consumers would be wiling to pay more for the products of transparent companies with a genuinely accountable commitment to eliminate their problems regardless of the prospect of disclosing negative information (i.e., they can or cannot ensure their products and operations are free of the relevant issue). This complements previous findings that for a communication strategy regarding unethical practices to be successful, it should include a commitment to eliminate ethical infractions, when they are identified (Aktar & Le Menestrel 2010). Awareness strengthens consumer perceptions and attention to ethical consumption according to their response in the marketplace to the different ways in which information is disclosed. The findings partially support existing consumer behavior literature that suggests awareness will increase ethical consumerism. More specifically, with regard to labor exploitation at the cocoa plantations, the findings suggest at least tangentially that a broad, deep

awareness of the ethical issues involved would not lead necessarily to a total consumer boycott of goods as professional industry lobbyists might otherwise have warned. Apparently, companies hesitate to take the risk of disclosing negative information, preferring instead to underestimate the consumer's capacity for appreciating meaningfully and positively a company that voluntarily discloses its involvement in a controversial ethical problem. In addition, consumers might give companies the redemptive benefit of the doubt in terms of corrective action. Unfortunately, the existing literature and periodic media reports suggest that, at least, many multinational chocolate companies prefer strategies that ultimately distract the public rather than directly address the problem. And, as in an earlier study (Aktar & Le Menestrel 2010) regarding the impact of competing CSR messages from two companies with different disclosure strategies, our findings suggest also without a contrast effect, companies shouldn't hesitate to be transparent regarding their social problems.

The results of the current study show that sincerity, trust, and attitude toward company are not predictors of WTP and, therefore, they do not mediate the effect of awareness and disclosure type on WTP. Future studies might be structured to take into account possible direct unconscious effect of disclosure type and awareness on consumer's WTP rather than step-by-step processing of all this information.

3.7. Limitations

The current study was limited to self-reported WTP, so, therefore, the translation of the results into an accurate account of how actual buying behavior would be affected remains a further research question. In addition, only one aspect of the decision-making process in consumer buying behavior was examined rather than the much broader approach that includes many relevant factors targeting a

consumer's preference for product. One also must acknowledge that ethical consumption involves more costs than offered in the experimental conditions of the study, especially those relating to the search for information about corporate social responsibility and ethical products.

3.8. Future Research

The study incorporated just a single media platform (i.e., broadcast video in a news program format) as a vehicle for increasing awareness. Future studies, taking in account the nature and credibility of the information source, might, for example, look at the effect of negative disclosure when the company in question is the primary source for the awareness-building campaign and when it is compared to external trusted sources of information. In addition, communication channel can also be manipulated. Consumers often do not seek CSR information in particular but they are exposed to it through channels such as editorial coverage on television and in the press, stakeholder word-of-mouth or corporate communication channels, including high profile cause-oriented marketing campaigns, advertising or point of purchase communications. Such communication channels might be yielding significantly positive attributions for with a company opting for negative disclosure rather than those found with a corporate website. The current study also could be replicated with other social problems about which the public's prior awareness of the social issue is already high and the focus would be on which manner and type of disclosure strategy would trigger the most significant changes in consumers' WTP. Another option is to examine the effect of negative information's long-term effects on sincerity, trust, and attitude towards companies. While these variables do not mediate the effect of negative information on WTP, they might be shown to have other measurable impacts on ethical consumerism.

3.9. Conclusion

What should corporate managers do when faced with an ethical problem? Given the intensity of market conditions in many industries, when companies face an ethical issue, the obvious default action appears to cover it up, even if the company is doing efforts to resolve the issue through less visible channels. Instinctively, many managers fear risking negative reactions from the media and, in turn, consumers and the general public. However, this protocol of managerial attitude and response hinders the promotion of sustainable business and ethical consumerism as it underestimates the importance of those ethical problems, decreases the efficacy of a proposed solution and falsely soothes companies pretending that they do not have a problem. Contrary to the conventional belief that consumers would not buy a product because of any negative information, managers and stakeholders such as consumers must be able to see beyond the negative information itself especially where consumers are increasingly becoming familiar with the inevitable dynamics of living in a global marketplace. Once consumers become aware of negative information associated with a company's connection to a controversial ethical problem or issue, it becomes economically, managerially, and socially unfeasible to pretend that a problem does not exist. For managers and executives, the strategy represents unforeseen costs that could have been avoided had the company taken the opportunity to acknowledge the problem and make consumers aware of any corrective actions. When there is awareness, consumers likely will reward the companies that publicly disclose, regardless of the positive or negative nature of the information being shared. In other words, voluntary negative social disclosure likely will not damage a company's position, given it acts definitively to resolve the issue and is transparent in the process. The response of other stakeholders is as critical, including other companies in the industry identified as ethically responsible, nonprofit agencies, government, and others directly and indirectly connected to the company and industry in question.

In the longer term, consumers also will be lulled out of their traditional comfort zones and will be challenged to think more comprehensively about the individual and collective impact of consumer behavior and the growing importance of ethical consumerism in many industries, most notably food and agriculture in which public debates seem to be multiplying in exponential form.

REFERENCES

Aktar, I. & Le Menestrel, M. 2010, "Consumer Responses to Voluntary Negative Corporate Social Disclosure", [working paper] Universitat Pompeu Fabra, Spain.

Alsop, R.J. 2005, "Communicating corporate citizenship", *Leading Perspectives,* vol. Summer, pp. 4-5.

Anderson, R.C. & Hansen, E.N. 2004, "Determining consumer preferences for eco-labelled forest products", *Journal of Forestry*, vol. 102, no. 4, pp. 28–32.

Andreasen, A.R., 1996, "Profits for Nonprofits: Find a Corporate Partner", *Harvard Business Review*, vol. 74, no. 6, pp. 47-59.

Argenti, P.A. & Forman, J. 2002, *The Power of Corporate Communication: Crafting the Voice and Image of Your Business*, McGraw-Hill, New York, pp. 197-266.

Astous, A. & Legendre, A. 2009, "Understanding consumers' Ethical Justifications: A Scale for Appraising Consumers' Reasons for not Behaving Ethically", *Journal of Business Ethics*, vol. 87, pp. 255-268.

Auger, P., Burke, P., Devinney T.M. & Louviere, J.J. 2003, "What will consumers pay for social product features? ", *Journal of Business Ethics,* vol. 42, no. 3, pp. 281–304.

Auger, P. & Devinney T.M. 2007, "Do what consumers say matter? The misalignment of preferences with unconstrained ethical intentions", *Journal of Business Ethics,* vol. 76, no. 4, pp. 361−383.

Avorn, J. 2006, "Dangerous Deception. Hiding the Evidence of Adverse Drug Effects" *New England Journal of Medicine*, vol. 355, no. 21, pp. 2169-2171.

Ayres, I. & Braithwaite, J. 1992, *Responsive Regulation: Transcending the Deregulation Debate*, Oxford University Press, New York, NY.

Azoulay, P. 2002, "Do Pharmaceutical Sales Respond to Scientific Evidence? ", *Journal of Economics and Management Strategy,* vol. 11, no. 4, pp. 551-594.

Bansal, P. & Kistruck, G. 2006, "Seeing is (not) Believing: Managing the Impressions of the Firm's Commitment to the Natural Environment", *Journal of Business Ethics*, vol. 67, pp. 165–180.

Barber, B. 1983, *The Logic and Limits of Trust*, Rutgers University Press, New Brunswick, NJ.

Barnett, C., Cloke, P., Clarke, N. & Malpass, A. 2005, "Consuming Ethics: Articulating the Subjects and Spaces of Ethical Consumption", *Antipode*, vol. 37, no. 1, pp. 23-45.

Barone, M.J., Miyazaki, A.D. & Taylor, K.A. 2000, "The Influence of Cause-Related Marketing on Consumer Choice: Does One Good Turn Deserve Another?", *Journal of the Academy of Marketing Science,* vol. 28, pp. 248-262.

Bass, L.E. 2004, *Child labor in sub-Saharan Africa,* Lynne Rienner Publishers Colombo.

BBC. 2007, *Child labour and the High Street: Was the shirt on your back made using forced child labour?*, [online] Available at:<http://news.bbc.co.uk/1/hi/programmes/newsnight/7068096.stm> [Accessed 27 June 2008].

Becker-Olsen, K.L., Cudmore, B.A. & Hill, R.P. 2006, "The Impact of Perceived Corporate Social Responsibility on Consumer Behavior", *Journal of Business Research,* vol. 59, pp. 46-53.

Becker-Olsen, K. & Simmons, C.J. 2002, "When Do Social Sponsorships Enhance or Dilute Equity? Fit, Message Source, and the Persistence of Effects", *Advances in Consumer Research,* vol. 29, pp. 287-289.

Bejou, D., Ennew, C.T. & Palmer, A. 1998, "Trust, Ethics and Relationship Satisfaction", *International Journal of Bank Marketing,* vol. 16, no. 4, pp. 170-175.

Berkey, M. 1990, "Annual Reports Evolve into Marketing Tools", *Financial Manager,* vol. 3, no. 1, pp. 50-60.

Bhattacharya, C.B. & Sen, S. 2004, "Doing better at doing good: when, why, and how consumers respond to corporate social initiatives", *California Management Review*, vol. 47, no. 1, pp. 9-24.

Bhattacharya, C.B., Sen, S. & Korschun, D. 2008, "Using Corporate Social Responsibility to Win the War for Talent," *MIT Sloan Management Review*, vol. 49, no. 2, pp. 37-44.

Billock, T.N. 2004, *Shifting Consumer Attitudes in the U.S. Towards Fair Trade*, Fair Trade Resources Network, [online] Available at:<http://fairtraderesource.org/resources.html> [Accessed 10 May 2009].

Bjorner, T.B., Hansen, L.G. & Russell, C.S. 2004, "Environmental labeling and consumers' choice. An empirical analysis of the effect of the Nordic Swan", *Journal of Environmental Economics and Management,* vol. 47, no. 3, pp. 411–424.

Blend, J.R. & Van Ravenswaay, E.O. 1999, "Measuring Consumer Demand for Ecolabeled Apples", *American Journal of Agricultural Economics,* vol. 81, no. 5, pp. 1072–1077.

Bloom, P.N., Hoeffler, S., Keller, K.L. & Meza, C. 2006, "How social-cause marketing affects consumer perceptions", *MIT Sloan Management Review,* no. 47, pp. 49-55.

Boulstridge, E. & Carrigan, M. 2000, "Do Consumers Really Care about Corporate Responsibility? Highlighting the Attitude–Behavior Gap", *Journal of Communication Management*, vol. 4, no. 4, pp. 355–368.

Bronn P.S. & Vrioni, A.B. 2001, "Corporate social responsibility and cause related marketing: an overview", *International Journal of Advertising,* vol. 20, pp. 207–222.

Brown, N. & Deegan, C. M. 1998, "The Public Disclosure of Environmental Performance Information—A Dual Test of Media Agenda Setting Theory and Legitimacy Theory", *Accounting and Business Research*, vol. 29, no. 1, pp. 21-41.

Brown, T.J. & Dacin, P.A. 1997, 'The Company and the Product: Corporate Associations and Consumer Product Responses", *Journal of Marketing,* vol. 61, no. 1, pp. 68-85.

CAFOD. 1998, *Views from the South,* Conference report on ethical trade, [online] Available at:<http://www.cafod.org/uk/policyviews.htm> [Accessed 14 November 2009].

Campbell, D., Craven, B. & Shrives, P. 2002, "Voluntary Social Reporting in Three FTSE Sectors: A Comment on Perception and Legitimacy", *Accounting, Auditing, and Accountability Journal,* vol. 16, no. 4, pp. 558-581.

Campbell, M. & Kirmani, A. 2000, "Consumers' Use of Persuasion Knowledge: The Effects of Accessibility and Cognitive Capacity on Perceptions of an Influence Agent", *Journal of Consumer Research*, vol. 27, no. 1, pp. 69-83.

Carrigan, M. & Attalla, A. 2001, "The Myth of the Ethical Consumer—Do Ethics Matter in Purchase Behavior?", *Journal of Consumer Marketing*, vol. 18, no. 7, pp. 560–577.

Carrington, M.J., Neville, B.A. & Whitwell, G.J. 2010, "Why Ethical Consumers Don't Walk Their Talk: Towards a Framework for Understanding the Gap Between the Ethical Purchase Intentions and Actual Buying Behaviour of Ethically Minded Consumers", *Journal of Business Ethics*, Published online, 6 May 2010.

Chatterjee, S. 2001, "Chocolate Firms Launch Fight Against 'Slave Free' Labels", *Philadelphia Inquirer,* August 01, pp. 21-23.

Cherrier, H. 2007, "Ethical consumption practices: co-production of self-expression and social recognition", *Journal of Consumer Behaviour*, vol. 6, pp. 321-335.

Cho, C.H. & Patten, D.M. 2007, "The Role of Environmental Disclosures as Tools of Legitimacy: A Research Note", *Accounting, Organizations, and Society*, vol.32, no. 7, pp. 639.

Christman, P. & Taylor, G. 2002, "Globalization and the Environment: Strategies for International Voluntary Initiatives", *Academy of Management Executive,* vol. 16, no. 3, pp. 121–135.

Clark, C.F., Kotchen, M.J. & Moore, M.R. 2003, "Internal and External Influences on Pro-Environmental Behavior: Participation in a Green Electricity Program", *Journal of Environmental Psychology*, vol. 23, no. 3, pp. 237–246.

Colquitt, J.A., Scott, B.A. & LePine, J. A. 2007, "Trust, trustworthiness, and trust propensity: A meta-analytic test of their unique relationships with risk taking and job performance. ", *Journal of Applied Psychology,* vol. 92, no. 4, pp. 909-927.

Cone. 2007, *Cause evolution survey*, [online] Cone. Available at:<http://www.coneinc.com/content1091> [Accessed 1 November 2009].

Co-operative Bank. 2006, *The ethical consumerism report*, Manchester, The Co-operative Bank.

Couzin, J. 2004, "Drug Research: Legislators Propose a Registry to Track Clinical Trials From Start to Finish", *Science*, vol. 305, pp. 1695.

Couzin, J. 2005, "Clinical Trials: Facing Criticism, Industry Offers to Share Data", *Science,* vol. 307, pp. 189.

Covello, V. B. 1992, "Trust and Credibility in Risk Communication", *Health and Environment Digest,* vol. 6, pp. 1-3.

Cowe, R. &. Williams, S. 2000, *Who are the ethical consumers?,* Co-operative Bank Report, pp. 1– 44.

Crane, A. 2001, "Unpacking the ethical product", *Journal of Business Ethics,* vol. 30, no. 4, pp. 361–373.

Creyer, E. & Ross W.T. 1997, "The Influence of Firm Behavior on Purchase Intention: Do Consumers Really Care about Business Ethics? ", *Journal of Consumer Marketing,* vol. 14, no. 6, pp. 421-428.

Curfman, G.D., Drazen, J.M. & Morrissey, S. 2005, "Expression of concern: Bombardier et al., "Comparison of upper gastrointestinal toxicity of rofecoxib and naproxen in patients with rheumatoid arthritis" ", *New England Journal of Medicine*; vol. 353, pp. 2813-2814.

Cvetkovich, G. & Lofstedt, R.E. 1999, *Social Trust and the Management of Risk*, Earthscan Publications, London.

Dahm M, Gonzalez P, & Porteiro N. 2009, "Trials, Tricks and Transparency: How Disclosure Rules Affect Clinical Knowledge", *Journal of Health Economics*, vol. 28, no. 6, pp. 1141-53.

Darnall, N. & Carmin, J. 2005, "Greener and Cleaner? The Signaling Accuracy of U.S. Voluntary Environmental Programs", *Policy Sciences*, vol. 38, pp. 71-90.

Darnall, N. & Sides, S. 2008, "Assessing the Performance of Voluntary Environmental Programs: Does Certification Matter? ", *The Policy Studies Journal,* vol. 36, no. 1, pp. 95-117.

Datamonitor. 2005, *Natural and ethical consumers 2004*, London: Datamonitor.

Davidoff, F., DeAngelis, C.D., Drazen, J.M., Hoey, J., Hojgaard, L., Horton, R. et al. 2001, "Sponsorship, Authorship and Accountability", *New England Journal of Medicine*, vol. 345, no. 11, pp. 825-826.

Dawkins, J. 2004, "Corporate responsibility: the communication challenge", *Journal of Communication Challenge,* no. 9, pp. 108-119.

De Angelis, C.D., Drazen, J.M., Frizelle, F.A., Haug, C., Hoey, J., Horton, R. et al. 2005, "Is this Clinical Trial fully registered? A Statement from the International Committee of Medical Journal Editors", *Journal of the American Medical Association*, vol. 293, pp. 2927-2929.

De Pelsmacker, P., Driesen, L. & Rayp, G. 2005, "Do consumers care about ethics? Willingness to pay for fair-trade coffee" *Journal of Consumer Affairs*, vol. 39, no. 2, pp. 363-385.

Dean, D.H. 2004, "Consumer Reaction to Negative Publicity: Effects of Corporate Reputation, Response, and Responsibility for a Crisis Event", *Journal of Business Communication*, vol. 41, no. 2, pp. 192-211.

Deegan, C. 2002, "The Legitimizing Effect of Social and Environmental Disclosures: A Theoretical Foundation", *Accounting, Auditing, and Accountability Journal,* vol. 15, no. 3, pp. 282-311.

Deegan, C. & Gordon, B. 1996, "A Study of the Environmental Disclosure Practices of Australian Corporations", *Accounting and Business Research,* vol. 26, no. 3, pp. 187-199.

Deegan, C. & Rankin, M. 1996, "Do Australian Companies Report Environmental News Objectively? An Analysis of Environmental Disclosure by Firms Prosecuted Successfully by the Environmental Protection Authority", *Accounting, Auditing, and Accountability Journal,* vol. 9, no. 2, pp. 52-69.

Deborah, A.Z., Ide, N.C., Tse, T., Harlan, W.R., West, J.C. & Lindberg, D.A.B. 2007, "Issues in the Registration of Clinical Trials", *Journal of the American Medical Association*, vol. 297, no. 19, pp. 2112-2119.

Delmas, M. & Terlaak, A. 2002, "Regulatory Commitment to Negotiated Agreements: Evidence from the United States, Germany, The Netherlands, and France", *Journal of Comparative Policy Analysis: Research and Practice,* vol. 4, pp. 5-29.

Democracy Now. 2008, "Chocolate's Bittersweet Economy: Cocoa Industry Accused of Greed, Neglect for Labor Practices in Ivory Coast. Democracy Now", [online] Available at:<http://www.democracynow.org/2008/2/14/chocolates_bittersweet_economy_cocoa_industry_accused> [Accessed 8 October 2009].

Devinney, T., Auger, P., Eckhart, G. & Birtchnell, T. 2006, "The other CSR", *Stanford Social Innovation Review,* no. Fall, pp. 30–37.

Dickersin, K. & Rennie, D. 2003, "Registering Clinical Trials", *Journal of the American Medical Association*, vol. 290, no. 4, pp. 516-523.

Dickson, M.A. 2000, "Personal Values, Beliefs, Knowledge, and Attitudes Relating to Intentions to Purchase Apparel from Socially Responsible Businesses", *Clothing and Textiles Research Journal*, vol. 18, no. 1, pp. 19–30.

Doane, D. 2001, *Taking Flight: The Rapid Growth of Ethical Consumerism*, New Economics Foundation, London.

Doucet, M. & Sismondo, S. 2008, "Evaluating Solutions to Sponsorship Bias", *Journal of Medical Ethics,* vol. 34, pp. 627-630.

Drachman, E.R. & Shank, A. 2003, *You decide!: controversial global issues.* Rowman & Littlefield Publishers.

Drumwright, M.E. 1996, "Company Advertising with a Social Dimension: The Role of Noneconomic Criteria", *Journal of Marketing*, vol. 60, pp. 71-87.

Du, S., Bhattacharya, C. & Sen, S. 2010, "Maximizing Business Returns to Corporate Social Responsibility (CSR): The Role of CSR Communication", *International Journal of Management Reviews,* vol. 12, no.1, pp. 8-19.

Du, S., Bhattacharya, C.B. & Sen, S. 2009, "Strengthening consumer relationships through corporate social responsibility", [working paper] Simmons College School of Management.

Du, S., Bhattacharya, C.B. & Sen, S. 2007, "Reaping relationship rewards from corporate social responsibility: the role of competitive positioning", *International Journal of Research in Marketing,* no. 24, pp. 224-241.

Dunaway, W.A. 2003, *Slavery in the American Mountain South,* Cambridge University Press.

Dwyer, F.R., Schurr, P.H. & Oh, S. 1987, "Developing buyer–seller relationships", *Journal of Marketing,* no. 51, pp. 11-27.

Edelman, L.B., Erlanger, H.S. & Lande, J. 1993, "Internal Dispute Resolution: The Transformation of Civil Rights in the Workplace", *Law and Society Review*, vol. 27, no. 3, pp. 497-534.

Eckhardt, G., Devinney, T. & Belk, R. 2006, *Why don't Consumers Behave Ethically*, DVD, AGSM.

Ehringhaus, S. & Korn, D. 2006, "Principles for protecting Integrity in the Conduct and Reporting of Clinical Trials", Association of American Medical Colleges 2006, [online] Available at:<http://www.aamc.org/research/clinicaltrialsreporting/clinicaltrialsreporting.pdf> [Accessed 19 October, 2007].

Eisend, M. 2006, "Two-Sided Advertising: A Meta-Analysis", *International Journal of Research in Marketing,* vol. 23, pp. 187-198.

Ellen, P.S., Mohr, L.A. & Web, D.J. 2000, "Charitable Programs and the Retailer: Do They Mix? ", *Journal of Retailing,* vol. 76, no. 3, pp. 393-406.

Ellen, P.S., Webb, D.J. & Mohr, L.A. 2006, "Building corporate associations: consumer attributions for corporate socially responsible program", *Journal of the Academy of Marketing Science,* no. 34, pp. 147-157.

Elliott, K.A. & Freeman R.B. 2005, "White Hats or Don Quixotes? Human Rights Vigilantes in the Global Economy" in *the National Bureau of Economic Research Book: Emerging Labor Market Institutions for the Twenty-First Century*, eds. R.B. Freeman, J. Hersch & L. Mishel., The University of Chicago Press, pp. 47-97.

Ethics World. 2009, *Corporate CSR Reports*, [online] Available at:<http://www.ethicsworld.org/corporatesocialresponsibility/corporatecsrreports.php#cad> [Accessed 11 September 2009].

Fischhoff, B. 1995, "Risk Perception and Communication Unplugged: Twenty Years of Process", *Risk Analysis*, vol. 15, pp. 137-145.

Forehand, M. R. & Grier, S. 2003, "When is Honesty the Best Policy? The Effect of Stated Company Intent on Consumer Skepticism", *Journal of Consumer Psychology,* vol.13, no. 3, pp. 349-356.

GAP. 2003, *Gap Inc. Social Responsibility Report*, [online] GAP. Available at:<http://www.gapinc.com/public/documents/CSR_Report_03.pdf> [Accessed 7 August 2008].

GAP. 2007, *Gap Inc. Issues Statement on Media Reports on Child Labor*, [online] GAP. Available at:<http://www.gapinc.com/public/Media/Press_Releases/med_pr_vendorlabor102807.shtml> [Accessed 27 June 2008].

Garber, A.M. 2001, "Evidence-based coverage policy", *Health Affairs*, vol. 20, pp. 62-82.

Gardberg, N.A. & Fombrun, C.J. 2002, "The global reputation quotient project, first steps towards a cross nationally valid measure of corporate reputation", *Corporate Reputation Review,* no. 4, pp. 303-308.

Gelb, D.S. & Strawser, J.A. 2001, "Corporate Social Responsibility and Financial Disclosure: An Alternative Explanation for Increased Disclosure", *Journal of Business Ethics,* vol. 33, no. 1, pg. 1-13.

Gozali, N.O., How, J.C. & Verhoeyen, P. 2002, "The Economic Consequences of Voluntary Environmental Information Disclosure", [online] IEMSS. Available at:<http://www.iemss.org/iemss2002/proceedings/pdf/volume%20due/349.pdf> [Accessed 10 August 2008].

Gray, R., Owen, D. and Adams, C., 1996, *Accounting and Accountability: Changes and Challenges in Corporate Social and Environmental Reporting*, Hemel Hempstead, Prentice Hall Europe.

Gray, R., Javad, M., Power, D.M. & Singlair, D.C. 2001, "Social and Environmental Disclosure and Corporate Characteristics: A Research Note and Extension", *Journal of Business Finance and Accounting,* vol. 28, no. 3, pp. 327-356.

Green, D. 2003, "Ethical? Will consumers buy it?", *Design Week,* vol. 5, June, 8.

Greenfield, W.M. 2004, "In the name of corporate social responsibility", *Business Horizons*, vol. 47, no. 1, pp. 19-28.

Griskevicius, V., Tybur, J.M. & Van den Bergh, B. 2010, "Going green to be seen: Status, reputation, and conspicuous conservation", *Journal of Personality and Social Psychology*, vol. 98, no. 3, pp. 392-404.

Gulmezoglu, A., Pang, T., Horton, R. & Dickersin, K. 2005, "WHO facilitates international collaboration in setting standards for clinical trial registration" *Lancet*, vol. 365, pp. 1829-1831.

Guthrie, J. & Parker, L.D. 1989, "Corporate Social Reporting: A Rebuttal of Legitimacy Theory", *Accounting and Business Research,* vol. 19, no. 76, pp. 343-352.

Haley, E. 1996, "Exploring the construct of organization as source: consumers' understanding of organizational sponsorship of advocacy advertising", *Journal of Advertising,* no. 25, pp. 19-36.

Harrison, R., Newholm, T. & Shaw, D. 2005, "Introduction" in *The ethical consumer*, SAGE publications, London, pp. 1-8.

Hartman, L.P., Rubin, R.S., & Dhanda, K.K. 2007, "The Communication of Corporate Social Responsibility: United States and European Union Multinational Corporations", *Journal of Business Ethics,* vol. 74, no. 4, pp. 373-389.

Hebb, T. 2006, "The Economic Inefficiency of Secrecy: Pension Fund Investors' Corporate Transparency Concerns", *Journal of Business Ethics,* vol. 63, pp. 385–405.

Henard, D.H. 2002, "Negative Publicity: What Companies Need to Know About Public Relations", *Public Relations Quarterly*, vol. 47, no. 4, pp. 8-12.

Hendry, J.R. 2006, "Taking Aim at Business: What Factors Lead Environmental Non-Governmental Organizations to Target Particular Firms?", *Business & Society*, vol. 45, no. 1, pp. 47–86.

Hess, D. 2007, "Social Reporting and New Governance Regulation: The Prospects of Achieving Corporate Accountability Through Transparency", *Business Ethics Quarterly*, vol. 17, no. 3, pp. 453–476.

Hess, D. 2008, "The Three Pillars of Corporate Social Reporting as New Governance Regulation: Disclosure, Dialogue and Development", *Business Ethics Quarterly*, vol. 18, no. 4, pp. 447–482.

Hess, J. & Story, J. 2005, "Trust-Based Commitment: Multidimensional Consumer-Brand Relationships", *Journal of Consumer Marketing,* vol. 22, no. 6, pp. 313-322.

Hopwood, A.G. 1996, "Introduction" in *Accounting, Organizations, and Society*, vol. 21, no. 1, pp. 55-56.

Horton, R. 2006, "Trial Registers: Protecting Patients, Advancing Trust", *Lancet*, vol. 367, pp. 1633-1635.

Horton, R. & Smith, R. 1999, "Time to Register Randomised Trials", *British Medical Journal,* vol. 319, pp. 865-866.

Hunt, S.D. & Vitell, S. 1993, "The General Theory of Marketing Ethics: A Retrospective and Revision" in *Ethics in Marketing*, eds. N.C. Smith & J.A. Quelch, Homewood, IL, Irwin, pp. 775–784.

ICMJE. 2007, "Clinical Trial Registration: Looking Back and Moving Ahead, International Committee of Medical Journal Editors", *New England Journal of Medicine,* vol. 356, pp. 2734-2736.

IFPMA. 2005, *Global Industry Position On Disclosure of Information About Clinical Trials.* Press Release of 6 January 2005, [online] IFPMA. Available at:< http://www.ifpma.org/News/NewsReleaseDetail.aspx?nID=2205> [Accessed 8 October, 2007].

ILO. 1996, *Child Labour Persists Around the World: More Than 13 Percent of Children 10-14 are Employed.* Press Release ILO/96/18, [online] ILO. Available at:<http://www.ilo.org/global/About_the_ILO/Media_and_public_information/Press_releases/lang--en/WCMS_008058/index.htm> [Accessed 22 October 2008].

International Labour Office: International Programme on elimination of Child Labour (IPEC). 2005, *Combatting Child Labour in Cocoa Growing*, [online] ILO. Available at:<http://www.ilo.org/public//english/standards/ipec/themes/cocoa/download/2005_02_cl_cocoa.pdf> [Accessed 10 September 2009].

Jackson, T. 2006, "Challenges for Sustainable Consumption Policy" in *the Eartscan Reader in Sustainable Consumption*, eds. T. Jackson, Eartscan, London.

Joergens, C. 2006, "Ethical fashion: myth or future trend?", *Journal of Fashion Marketing and Management*, vol. 10, no. 3, pp. 360-371.

Jones, E.E. & Davis, K.E. 1965, "From Acts to Dispositions: The Attribution Process in Person Perception" in *Advances in Experimental Social Psychology,* eds. L. Berkowitz, Academic Press, New York, pp. 219-266.

Judd, V. & Timms, B. 1991, "How Annual Reports Communicate a Customer Orientation", *Industrial Marketing Management,* vol. 20, no. 4, pp. 353-360.

Kelley, H. H.: 1967, 'Attribution Theory in Social Psychology" in *Nebraska Symposium on Motivation,* eds. D. Levine, vol. 15, University of Nebraska Press, Lincoln, NE.

Kelley, H.H. 1972, "Attribution in Social Interaction" in *Attribution: Perceiving the Causes of Behavior,* eds. E.E. Jones, D.E. Kanouse, H.H. Kelley, R.E. Nisbett, S. Valins & B. Weiner, General Learning Press, Morristown, NJ, pp. 1-26.

Kerr, S. 1975, "On the Folly of Rewarding A, While Hoping for B", *Academy of Management Journal*, vol. 18, no. 4, pp. 769-783.

Kielland, A. & Tovo, M.C. 2006, *Children at work: child labor practices in Africa,* Lynne Rienner Publishers, Colombo.

King, A.A. & Lenox, M.J. 2000, "Industry Self-Regulation Without Sanctions: The Chemical Industry's Responsible Care Program", *Academy of Management Journal*, vol. 43, no. 4, pp. 698-716.

King, A., Lenox, M. & Barnett, M. 2002, "Strategic Responses to the Reputation Commons Problem" in *Organizations, Policy and the Natural Environment*, eds. A. Hoffman & M. Ventresca, Stanford University Press, Stanford, CA, pp. 393-407.

Kolk, A. 2003, "Trends in sustainability reporting by the Fortune Global 250", *Business Strategy and the Environment*, vol. 12, pp. 279–291.

Kollmus, A. & Agyeman, J. 2002, "Mind the gap: Why do people act environmentally and what are the barriers to pro-environmental behavior?", *Environmental Education Research*, vol. 8, no. 3, pp. 239-260.

Kotler, P. & Lee, N. 2005, *Corporate Social Responsibility: Doing the Most Good for Your Company and Your Cause. Hoboken, NJ: John Wiley.* John Wiley & Sons, Hoboken, New Jersey.

KPMG 2008, *International Survey of Corporate Responsibility Reporting*, [online] KPMG. Available at:<http://www.kpmg.com/SiteCollectionDocuments/International-corporate-responsibility-survey-2008_v2.pdf> [Accessed 8 November 2009].

Krimsky, S. 1999, "Conflict of Interest and Cost-Effectiveness Analysis", *Journal of the American Medical Association,* vol. 282, no. 15, pp. 1474-1475.

Lanis R. & Waller, D.S. 2007, "Corporate Social Responsibility Disclosure: An Exploratory Study of the Top 10 Media Organizations" in *Proceedings of the 2007 ANZMAC Conference 3Rs: Reputation, Responsibility, and Relevance*, eds. M. Thyne, K. Deans & J. Gnoth, Otago University, Dunedin, New Zealand), pp. 2847-2854, [online] Available at:<http://www.anzmac07.otago.ac.nz/anzmacCD/papers/D%20Waller_1a.pdf> [Accessed 20 August 2008].

Laurita, S. 2001, *Low Marks for Corporations*, PR News, vol.57, pp. 1.

Lee, K. & Shin, D. 2010, "Consumers' responses to CSR activities: The linkage between increased awareness and purchase intention", *Public Relations Review*, vol. 36, pp. 193-195.

Levin, A.M., Davis, J.C. & Levin, I. 1996, "Theoretical and Empirical Linkages between Consumers' Responses to Different Branding Strategies" in *Advances in Consumer Research*, vol. 23, eds. K.P. Corfman & J.G. Lynch Jr., Provo, UT: Association for Consumer Research, pp. 296-300.

Lewis, T.R., Reichman, J.H. & So, A.D. 2007, "The Case for Public Funding and Public Oversight of Clinical Trials", *The Economists Voice*, vol. 4, no. 1, [online] Available at:<http://www.bepress.com/ev/vol4/iss1/art3> [Accessed 17 November 2007].

Lichtenstein, D.R., Drumwright, M.E. & Braig, B.M. 2004, "The effect of corporate social responsibility on customer donations to corporate-supported nonprofits", *Journal of Marketing*, vol. 68, no. 4, pp. 16-32.

Lindgreen, A. & Swaen, V. 2010, "Corporate social responsibility", *International Journal of Management Reviews*, vol. 12, no. 1, pp. 1-7.

Lindgreen, A., Swaen, V., & Johnston, W.J. 2009, "Corporate social responsibility: an empirical investigation of U.S. organizations", *Journal of Business Ethics*, vol. 85, no. 2, pp. 303-323.

Loureiro, M.L. & Lotade, J. 2005, "Do fair trade and eco-labeling in coffee wake up the consumer conscience? " *Ecological Economics,* vol. 53, no. 1, pp. 129–138.

Lyon, T.P. & Maxwell, J.W. 2007, "Environmental Public Voluntary Programs Reconsidered", *The Policy Studies Journal,* vol. 35, no. 4, pp. 723-750.

Maietta, O.W. 2003, "The hedonic price of fair-trade coffee for the Italian consumer", the International Conference Agricultural Policy Reform and the WTO: Where are we heading?, Italy.

Maignan, I. & Ferrell, O.C. 2001, "Corporate Citizenship as a Marketing Instrument—Concepts, Evidence and Research Directions", *European Journal of Marketing*, vol. 35, no. 3-4, pp. 457–484.

Maignan, I. & Ralston, D.A. 2002, "Corporate Social Responsibility in Europe and the U.S.: Insights from Businesses' Self-Presentations", *Journal of International Business Studies*, vol. 33, no. 3, pp. 497-514.

Manheimer, E. & Anderson, D. 2002, "Survey of public information about ongoing clinical trials funded by industry: evaluation of completeness and accessibility", *British Medical Journal*, vol. 325, pp. 528-531.

Maon, F., Lindgreen, A. & Swaen, V. 2009, "Designing and implementing corporate social responsibility: an integrative framework grounded in theory and practice", *Journal of Business Ethics*, vol. 87, no. 1, pp. 71-89.

Marymount University Center for Ethical Concerns. 1999. *The Consumers and Sweatshops*, [online] Available at:<http://www.marymount.edu/news/garmentstudy/overview.html > [Accessed 2 June 2010]

Maxwell, J.W., Lyon, T.P. & Hacket, S.C. 2000, "Self-Regulation and Social Welfare: The Political Economy of Corporate Environmentalism", *Journal of Law and Economics,* vol. 43, no. 2, pp. 583-619.

Mayer, R.C., Davis, J.H. & Schoorman, F.D. 1995, "An Integrative Model of Organizational Trust", *Academy of Management Review*, vol. 20, pp. 709-734.

Meyers-Levy, J. & Sternthal, B. 1993, "A Two-Factor Explanation of Assimilation and Contrast Effects", *Journal of Marketing Research*, vol. 30, no. August, pp. 359-368.

MacGillivray, A. 2000, *The Fair Share: The Growing Market Share of Green and Ethical Products*, New Economics Foundation, London.

McGoldrick, P.J. & Freestone, O.M. 2008, "Ethical product premiums: antecedents and extent of consumers' willingness to pay", *The International Review of Retail, Distribution and Consumer Research*, vol. 18, no. 2, pp. 185-201.

McKendall, M., DeMarr, B. & Jones-Rikkers, C. 2002, "Ethical Compliance Programs and Corporate Illegality: Testing the Assumptions of the Corporate Sentencing Guidelines", *Journal of Business Ethics*, vol. 37, no. 4, pp. 367-383.

McLuhan, M. 1994, *Understanding Media: The Extensions of Man,* 1st ed. McGraw Hill, NY, 1964; reissued MIT Press, 1994.

McWilliams, A., Siegel, D.S. & Wright, P.M. 2006, "Corporate social responsibility: strategic implications", *Journal of Management Studies*, vol. 43, no. 1, pp. 1-18.

Menon, S. & Kahn, B.E. 2003, "Corporate sponsorships of philanthropic activities: when do they impact perception of sponsor brand?", *Journal of Consumer Psychology,* no. 13, pp. 316-327.

MORI. 2000, *European Attitudes towards Corporate Social Responsibility*, Research for CSR Europe, MORI, London.

Morrell, L. 2005, *The ethical premium*, Retail Week, Published online, 4 February 2005.

Morsing, M. & Schultz, M. 2006, "Corporate social responsibility communication: stakeholder information, response and involvement strategies", *Business Ethics: A European Review*, vol. 15, pp. 323–338.

Nakayachi, K. & Ohnuma, S. 2003, "Trust and Consensus Building in the Context of Risk Management: A Questionnaire-Based Research in Sapporo on the Chitose Drainage Canal Plan", *The Japanese Journal of Experimental Social Psychology*, vol. 42, pp. 187-200.

Nakayachi, K. & Watabe, M. 2005, "Restoring Trustworthiness after Adverse Events: The Signaling Effects of Voluntary Hostage Posting on Trust", *Organizational Behavior and Human Decision Processes,* vol. 97, pp. 1-17.

Nam, M. & Sternthal, B. 2008, "The Effects of a Different Category Context on Target Brand Evaluations", *Journal of Consumer Research*, vol. 35, no. 4, pp. 668-679.

Nasser, D.L. & McEven, W.J. 1976, "The Impact of Alternative Media Channels: Recall and Involvement with Messages", *Educational Technology Research and Development*, vol. 24, no. 3, pp. 263-272.

National Statistics. 2006, *Consumer trends data: quarter 2,* ONS, London.

National Consumer Council. 1996, *Green claims: a consumer investigation into marketing claims about the environment*, NCC, London.

Neu, D., Warsame, H. & Pedwell, K. 1998, "Managing Public Impressions: Environmental Disclosures in Annual Reports", *Accounting, Organizations, and Society,* vol. 23, no. 3, pp. 265-282.

Newholm, T. & Shaw, D. 2007, "Studying the Ethial Consumer: A review of research", *Journal of Consumer Behaviour*, vol. 6, no. 5, pp. 253-270.

Nisbett, R.E. & Ross, L. 1980, *Human Inference: Strategies and Shortcomings of Social Judgment*, Prentice Hall, Englewood Cliffs, NJ.

O'Connell, D.J., McCarthy, J.F. & Hall, D.T. 2004, "Print, Video, or The CEO: The Impact of Media in Teaching Leadership with the Case Method", *Journal of Management Education*, vol. 28, no. 3, pp. 294-318.

Off, C. 2007, *Bitter Chocolate: Investigating the Dark Side of the World's Most Seductive Sweet,* Vintage Canada, Montreal.

Ohnuma, S., Ishibashi, Y., Suzuki, Y. & Chikamoto, K. 2007, "Do Self-Sanctioning and Outsider Intervention Instill Trust in the Information Disclosure Process? ", *Journal of Risk Research,* vol. 10, no. 6, pp. 883-898.

Palacios, M., Ramirez, J.H. 2007, "Editorial: Clinical Trials Registration and the Instead of Research Phenomenon", *Colombia Medica*, vol. 38, no. 1, pp. 6.

Parenti, C. 2008, "Chocolate's bittersweet economy: Seven years after the industry agreed to abolish child labor, little progress has been made", *Fortune Magazine*, 15 February, [online] Available at:<http://money.cnn.com/2008/01/24/news/international/chocolate_bittersweet.fortune> [Accessed 10 September 2009].

Parker, C. 2002, *The Open Corporation: Effective Self-Regulation and Democracy*, Cambridge University Press, Cambridge.

Patagonia. 2008, *The Footprint Chronicles*, [online] Available at:<http://www.patagonia.com/web/us/footprint/index.jsp?slc=en_US&sct=US> [Accessed 16 May 2009].

Patten, D.M. 2002, "The Relation Between Environmental Performance and Environmental Disclosure: A Research Note", *Accounting, Organizations, and Society,* vol. 27, no. 8, pp. 763-773.

Pearce, J.A. & Doh, J.P. 2005, "High-impact collaborative social initiatives", *Sloan Management Review*, vol. 46, no. 3, pp. 30-39.

Pepper, M., Jackson, T. & Uzzell, D. 2009, "An examination of the values that motivate socially conscious and frugal consumer behaviors", *International Journal of Consumer Studies*, vol. 33, no. 2, pp. 126-136.

Peters, R.G., Covello, V.T. & McCallum, D.B. 1996, "The Determinants of Trust and Credibility in Environmental Risk Communication: An Empirical Study", *Risk Analysis,* vol. 17, pp. 43-54.

Pham, M.T. 1998, "Representativeness, Relevance, and the Use of Feelings in Decision"*, The Journal of Consumer Research,* vol. 25, no. 2, pp. 144-159.

Polinsky, A.M. & Shavell, S. 2006, "Mandatory versus Voluntary Disclosure of Product Risks", *Stanford Institute for Economic Policy*, vol. 10, pp. 117-124.

Porter, M.E. & Kramer, M.R. 2006, "Strategy & society: the link between competitive advantage and corporate social responsibility", *Harvard Business Review,* no. 84, pp. 78-92.

Posner, E. A.: 2000a, *Law and Social Norms*, Harvard University Press, Cambridge.

Posner, E. A.: 2000b, "Law and Social Norms: The Case of Tax Compliance", *Virginia Law Review,* vol. 86, no. 8, pp. 1781-1819.

Pratto, F. & John, O.P. 1991, "Automatic Vigilance: The Attention-Grabbing Power of Negative Social Information", *Journal of Personality and Social Psychology*, vol. 61, pp. 380-391.

Preacher, K.J. & Hayes, A.F. 2008, "Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models", *Behavior Research Methods,* vol. 40, pp. 879-891.

Priester, J. & Petty, R.E. 2003, "The Influence of Spokesperson Trustworthiness on Message Elaboration, Attitude Strength, and Advertising Effectiveness", *Journal of Consumer Psychology*, vol. 13, pp. 408-421.

Ravilious, K. 2006, "Buyer beware; when you shell out for a premium food, how do you know you're getting what you paid for?", *New Scientist*, vol. 192, no. 2577, pp. 40–43.

Reynolds, M.A. & Yuthas, K. 2008, "Moral Discourse and Corporate Social Responsibility Reporting", *Journal of Business Ethics,* vol. 78, pp. 47–64.

Rising, K., Bacchetti, P. & Bero, L. 2008, "Reporting bias in drug trials submitted to the Food and Drug Administration: review of publication and presentation", *PLoS Med*, vol.5, pp. 217.

Roberts, R.W. 1992, "Determinants of Corporate Social Responsibility Disclosure: An Application of Stakeholder Theory", *Accounting, Organizations, and Society*, vol. 17, no. 6, pp. 595-612.

Roberts, J.A. 1996a, "Will the Real Socially Responsible Consumer Please Step Forward?", *Business Horizons*, vol. 39, no. 1, pp. 79–83.

Roberts, J. A. 1996b, "Green consumers in the 1990s: Profile and implications for advertising", *Journal of Business Research*, vol. 36, no. 3, pp. 217-231.

Rockhold, F.W. & Krall, R.L. 2006, "Trial summaries on results databases and journal publication", *Lancet* 2006, vol.367, pp. 1636.

Rockness, J., Schlachter, P. & Rockness, H.O. 1986, "Hazardous Waste Disposal, Corporate Disclosure, and Financial Performance in the Chemical Industry" in *Advances in Public Interest Accounting 1,* eds. M. Neimark, Greenwich: JAI Press, pp. 167-191.

Rotter, J.B. 1971, "Generalized Expectancies for Interpersonal Trust", *American Psychologist*, vol. 26, no. 5, pp. 443-452.

Saparito, P., Chen, C. & Sapienza, H. 2004, "The Role of Relational Trust in Bank-Small Firm Relationships", *Academy of Management Journal,* vol. 47, no. 3, pp. 400-410.

Schuman, M.C. 1995, "Managing Legitimacy: Strategic and Institutional Approaches", *Academy of Management Review*, vol. 20, no. 3, pp. 571-610.

Sen, S., Bhattacharya, C.B. & Korschun, D. 2006, "The role of corporate social responsibility in strengthening multiple stakeholder relationships: a field experiment", *Journal of the Academy of Marketing Science,* no. 34, pp. 158-166.

Sen, S. & Bhattacharya, C. B. 2001, "Does Doing Good Always Lead to Doing Better? Consumer Reactions to Corporate Social Responsibility", *Journal of Marketing Research,* vol. 38, no. 2, pp. 225-243.

Shavell, S. 1994, "Acquisition and Disclosure of Information Prior to Sale", *RAND Journal of Economics,* vol. 25, no. 1, pp. 20-36.

Shaw, D. & Clarke, I. 1999, "Belief Formation in Ethical Consumer Groups: An Exploratory Study", *Marketing Intelligence & Planning*, vol. 17, no. 2, pp. 109–119.

Shaw, D. & Newholm, T. 2002, "Voluntary simplicity and the ethics of consumption", *Psychology & Marketing,* vol. 19, no. 2, pp. 18.

Sherif, M. & Hovland, C.I. 1961, *Social judgment: Assimilation and contrast effects in communication and attitude change*, Yale University Press, New Haven.

Siegrist, M., Earle, T. & Gutcher, H. 2003, "Test of a Trust and Confidence Model in the Applied Context of Electromagnetic Field (EMF) Risks", *Risk Analysis,* vol. 23, pp. 705-716.

Sikula, A. & Costa, A.D. 1994, "Are Women More Ethical than Men?", *Journal of Business Ethics*, vol. 13, no. November, pp. 859–871.

Simmons, C.J. & Becker-Olsen, K.L. 2006, "Achieving marketing objectives through social sponsorships", *Journal of Marketing,* no. 70, pp. 154-169.

Simpson, J. 2007, "Psychological Foundations of Trust", *Current Directions in Psychological Science,* vol. 16, no. 5, pp. 264-268.

Skowronski, J. & Carlston, D. 1987, "Social Judgment and Social Memory: The Role of Cue Diagnosticity in Negativity, Positivity and Extremity Biases", *Journal of Personality and Social Psychology,* vol. 52, pp. 689-699.

Slovic, P. 1993, "Perceived Risk, Trust, and Democracy", *Risk Analysis,* vol. 13, pp. 675-682.

Stanton, P. & Stanton, J. 2002, "Corporate Annual Reports: Research Perspectives Used", *Accounting, Auditing, and Accountability Journal,* vol. 15, no. 4, pp. 478-500.

Strahilevitz, M. 2003, "The effects of prior impressions of a firm's ethics on the success of a cause-related marketing campaign: do the good look better while the bad look worse?", *Journal of Nonprofit & Public Sector Marketing,* no. 11, pp. 77-92.

Straughan, R.D. & Roberts, J.A. 1999, "Environmental segmentation alternatives: a look at green consumer behavior in the new millennium", *Journal of Consumer Marketing*, vol. 16, no. 6, pp. 558-575.

Strong, C. 1996, "Features contributing to the growth of ethical consumerism at a preliminary investigation", *Marketing Intelligence and Planning*, vol. 14, no. 5, pp. 5-13.

Szykman, L.R., Bloom, P.N. & Blazing, J. 2004, "Does corporate sponsorship of a socially oriented message make a difference? An investigation of the effects of sponsorship identity on responses to an anti-drinking and driving message.", *Journal of Consumer Psychology,* no. 14, pp. 13-20.

Tapscott, D. & Ticoll, D. 2003, *The Naked Corporation*, New York, Free Press.

Timberland. 2006, *Timberland Sets New Standard for Product Transparency and Increases Efforts to Minimize Environmental Impact,* [online] Available at:<http://www.timberland.com/corp/index.jsp?eid=8500007242&page=pressrelease> [Accessed 16 May 2009].

Titus, P.A. & Bradford, J.L. 1996, "Reflections on consumer sophistication and its impact on ethical business practice", *The Journal of Consumer Affairs,* vol. 30, no. 1, pp. 170–194.

Toffel, M.W. & J.L. Short: 2008, "Coming Clean and Cleaning Up: Is Voluntary Disclosure a Signal of Effective Self-policing? ", Corporate Social Responsibility Initiative Working Paper, No. 46, John F. Kennedy School of Government, Harvard University, Cambridge, MA), [online] Available at:<http://www.hks.harvard.edu/m-rcbg/CSRI> [Accessed 1 June 2009].

Tsalikis, J. & Ortiz-Buonafina, M. 1990, "Ethical Beliefs Differences of Males and Females", *Journal of Business Ethics*, vol. 9, no. 6, pp. 509–517.

Trudel, R. & Cotte, J. 2008, "Reward or Punish: Willingness to pay for Ethically Produced Goods", *Advances in Consumer Research*, vol. 35, pp. 740.

Vaccaro, A. & Madsen, P. 2010, "Corporate dynamic transparency: the new ICT-driven ethics?", *Ethics and Information Technology*, vol. 11, no. 2, pp. 113-122.

Vaccaro, A. & Echeverri, D.P. 2010, "Corporate Transparency and Green Management", *Journal of Business Ethics*, vol. 95, no. 3, pp. 487-506.

Van Lange, P.A.M., Otten, W., De Bruin, E.M.N. & Joireman, J.A. 1997, "Development of prosocial, individualistic, and competitive orientations: theory and preliminary evidence", *Journal of Personality and Social Psychology,* no. 73, pp. 733-746.

Vitell, S.J., Singhapakdi, A. & Thomas, J. 2001, "Consumer Ethics: An Application and Empirical Testing of the Hunt-Vitell Theory of Ethics", *Journal of Consumer Marketing*, vol. 18, no. 2, pp. 153–178.

Vogue, D. 2005, *The Market for Virtue: The Potential and Limits of Corporate Social Responsibility,* Brookings Institution Press, Washington, D.C.

Webb, D.J. & Mohr, L.A. 1998, "A Typology of Consumer Responses to Cause-Related Marketing: From Skeptics to Socially Concerned", *Journal of Public Policy and Marketing,* vol. 17, no. 2, pp. 226-238.

WHO. 2006, *International Clinical Trials Registry Platform: Trial registration data set*, [online] WHO. Available at:<http://www.who.int/ictrp/data_set/en/index1.html> [Accessed 1 November 2007].

Wigley, S. 2008, "Gauging consumers' responses to CSR activites: Does increased awareness makes cents?", *Public Relations Review*, vol. 34, pp. 306-308.

Williams, E.D. (Congressional Research Service, Domestic Social Policy Division). Clinical Trials Reporting and Publication. A report by Congressional Research Service prepared for members and committees of Congress 2007, Report Code: RL32832, [online] Available at:<http://www.fas.org/sgp/crs/misc/RL32832.pdf> [Accessed 8 October, 2007].

Williams, S.M. 1999, "Voluntary Environmental and Social Accounting Disclosure Practices in the Asia-Pacific Region: An International Empirical Test of Political Economy Theory", *The International Journal of Accounting*, vol. 34, no. 2, pp. 209-238.

Willyard, C. 2007, "Pfizer faulted over drug trials in Nigeria", *Nature Medicine*, vol. 13, no. 7, pp. 763.

Wilmhurst, T.D. & Frost, G.R. 2000, "Corporate Environmental Reporting: A Test of Legitimacy Theory", *Accounting, Auditing, and Accountability,* vol. 13, no. 1, pp. 10-25.

Witkowski, T.H. & Reddy, S. 2010, "Antecedents of ethical consumption activities in Germany and the United States", *Australasian Marketing Journal*, vol. 18, no. 1, pp. 8-14.

Yamagishi, T. 1998, *The Structure of Trust: The Evolutionary Games of Mind and Society*, Tokyo University Press, Tokyo.

Yamagishi, T., Cook, D.S. & Watabe, M. 1998, "Uncertainty, Trust, and Commitment Formation in the United States and Japan", *American Journal of Sociology*, vol. 104, no. 1, pp. 165-194.

Yamagishi, T. & Yamagishi M. 1994, "Trust and Commitment in the United States and Japan", *Motivation and Emotion*, vol. 18, pp. 129-166.

Ybarra O. and W. G. Stephan: 1996, "Misanthropic Person Memory", *Journal of Personality and Social Psychology*, vol. 70, pp. 691-700.

Yoon, Y., Gurhan-Canli, Z. & Schwarz, N. 2006, "The Effect of Corporate Social Responsibility (CSR) Activities on Companies with Bad Reputations", *Journal of Consumer Psychology*, vol. 16, no. 4, pp. 377-390.

Zarin, D.A., Tse, T. & Ide, N.C. 2005, "Trial registration at ClinicalTrials.gov between May and October 2005", *New England Journal of Medicine*, vol. 353, pp. 2779-2787.

A. APPENDIX TO CHAPTER 1

A.1. Survey Instructions for Physicians

Please note that explanations written with italic font weren't available to participants.

a) Condition 1

Good Day. Thank you for participating in this survey.

This survey is designed and will be used by Ipek Aktar for PhD dissertation research only. This data will be kept completely anonymous and confidential. Please do not write your name. Answers to the questions shouldn't be changed after having passed to the next question. The survey consists of 5 pages and lasts 10 minutes.

If you would like to see the full results, you can contact me at the following email address; "ipek.aktar@upf.edu".

Thanks again for your time.

Instructions

Suppose you're searching for new macrolide antibiotics in order to update your knowledge. Based on your research from the Food and Drug Administration's webpage for healthcare professionals, you find out that there are two recently approved macrolide antibiotics. Both drugs are used to treat respiratory and ear infections caused by bacteria.

Below you see the information on the side effects of both drugs, which are priced equally. Both drugs are covered by the Social Security / Insurance. Given this information, please state, which one of the following two drugs you would prescribe to your patients:

ANTIBIO-A
Active Ingredient: 500mg Amycin in each tablet

Side Effects:
Most Common (1%-10%)
Non-severe
Abdominal Pain, Nausea, Dizziness
Severe
Diarrhea, Vomiting , Skin Rash (allergic reaction)

Rare(less than 1%)
Non-severe
Dizziness, Headache, Fatigue, Constipation, Somnolence
Severe
Anorexia in pediatric patients, Vaginitis (vaginal infection), Chest Pain, Arrhythmias (Uneven heartbeats)

ANTIBIO-A® is registered trademark of Pharmaceutical A

ANTIBIO-B
Active Ingredient: 500mg Bmycin in each tablet

Side Effects:
Most Common (1%-10%)
Non-severe
Abdominal Pain, Nausea, Dizziness
Severe
Diarrhea, Vomiting , Skin Rash (allergic reaction)

Rare(less than 1%)
Non-severe
Dizziness, Headache, Fatigue, Constipation, Somnolence
Severe
Anorexia in pediatric patients, Vaginitis (vaginal infection)

ANTIBIO-B® is registered trademark of Pharmaceutical B

1) Please select one:

Antibio-A

Antibio-B

2) Please explain briefly your choice:

b) Condition 2

Same as Version 1 except that it includes the following additional information/statement by the Pharmaceutical A:

"We, as Pharmaceutical Company A, voluntarily register all our clinical trials to an online platform as they start. We also disclose our clinical trials' results in our

clinical trial results database once they are obtained. They are available to any third party through our webpage; http://www.pharmaceuticala.com/clinicaltrials."

c) Condition 3

Same as Version 1 except that it includes the following additional information/statement by the Pharmaceutical A:

"Supporting World Health Organization's Registry Network, we, as Pharmaceutical Company A, voluntarily register all our clinical trials to the World Health Organization's Registry Platform before the recruitment of the first participant. We also disclose full results of our completed clinical trials, in a results database recognized by the World Health Organization. These information are available to any third party through the WHO's Registry Network's webpage; http://www.who.int/ictrp/en/PharmaceuticalA.html with the following Universal Trial Reference Number of ANTIBIO-A's clinical trial; X-46572678-L. Our transparent policy on clinical trials reveals our agreement and support to the WHO statement that access to information about ongoing, completed and published clinical trials is essential for appropriate decision making in medicine and the reporting of such information to the public should be done in a standard format."

Following items are included in all 3 versions:

3) Please state which of the Drug Agencies' regulations is followed in your country?

Food and Drug Administration (FDA)
European Medicines Agency (EMEA)

Other (Please specify _____)

Please state the level you agree or disagree with the following statements by marking the appropriate box.

For items 4-7 please consider the appropriate drug agency that is followed in your country, which you specified in the Question 3 above (Food and Drug Administration / European Medicines Agency / other).

Participants were asked to rate the items 4-7 by using the following four points Likert Scale. Strongly Agree / Somewhat Agree / Somewhat Disagree / Strongly Disagree

4) The information in the clinical trial reports, published by the FDA / EMEA is sufficient for healthcare professionals to evaluate a particular drug.
5) The information in clinical trial reports by the FDA / EMEA is objective, not affected by the pharmaceutical companies' self-interests.
6) The information in clinical trial reports by the FDA / EMEA is not selective; it discloses all positive and negative results.
7) The current regulations ensure that all critical information on clinical trials is communicated to healthcare professionals by the FDA / EMEA.

Please state whether the following statements are true or false by marking the appropriate box.

Participants were asked to rate the items 8-17 by using the following scale: True / False / I don't know

8) In order to be considered for publication at any member journals of International Committee of Medical Journal Editors, clinical trials need to be registered to an online, voluntary registry database that is publicly available.

9) Voluntary registry databases make the main information on ongoing clinical trials public.

10) World Health Organization requires the clinical trial registry to take place before the recruitment of the first participant to the trial.

11) World Health Organization's Registry Platform requires that minimum 20 registration data items should be publicly disclosed at the time of registration.

12) The International Committee of Medical Journal Editors suggests that clinical trial results need to be disclosed at a voluntary results database within 24 months after the data completion if it is not published in a peer reviewed journal.

13) World Health Organization's Registry Platform does not support any mechanism for delayed disclosure.

14) Voluntary Clinical Trial Databases are the only public sources of clinical trial results for unsuccessful trials.

15) FDA obliges pharmaceutical companies to disclose the clinical trials of life threatening and serious diseases.

16) Pharmaceutical companies are legally obliged to disclose all the results of clinical trials within a year after the end date of the trial.

17) The joint statement by the international organizations representing the pharmaceutical industry supports the disclosure of clinical trials one year after the drug approval if it is not published yet.

Please state the level you agree or disagree with the following statements by marking the appropriate box.

Participants were asked to rate the items 18-27 by using the following four points Likert Scale: Strongly Agree / Somewhat Agree / Somewhat Disagree / Strongly Disagree

18) I would use an online clinical trial Registry Platform on regular basis to check out the information on ongoing clinical trials in order to update my knowledge on possible new treatments being tested in my area of specialty.

19) Publicly available information on ongoing trials and their design would help me make better decisions on which drug to prescribe.

20) Publicly available results of clinical trials help me make better decisions on which drug to prescribe.

21) I would use the clinical trial results database, www.clinicalstudyresults.org (the largest results database created by the PhRMA, an organization representing the pharmaceutical industry) to check out the information on drugs that I prescribe regularly.

22) When choosing among equally priced drugs from the same therapeutic class, I would prescribe the drug that registers its clinical trial during the recruitment period to any Registry Platform that is a part of the World Health Organization's Registry Platform network.

23) I would trust more the reported side effects of a drug if the information of its clinical trial design was registered and made available to the public through the World Health Organization's Registry Platform.

24) I would develop a positive attitude towards the pharmaceutical brands that register their trials at the World Health Organization's Registry Platform.

25) When choosing among equally priced drugs from the same therapeutic class, I would prescribe the drug that discloses the results of its clinical trials through a Results Database that is recognized by the World Health Organization.

26) I would trust more the reported side effects of a drug if its results were disclosed and made available to the public through a Results Database that is recognized by the World Health Organization.

27) I would develop a positive attitude towards the pharmaceutical brands that disclose their clinical trial results in a Results Database that is recognized by the World Health Organization.

Please fill out the following items asking for your professional and demographic information:

28) Please state your medical specialty_____

29) Please state the number of years that you have been in medical practice ___

30) Have you ever conducted a clinical trial for a pharmaceutical company: (If your answer is Yes, please state for how many times)

Yes (how many times? ___)

No

31) Please state your nationality ____

32) Please state your age _____

33) Please state your sex by marking the appropriate box

Female

Male

B. APPENDIX TO CHAPTER 2

B.1. Instructions

Please note that explanations and the differences among manipulations, emphasized with italic font, weren't available to participants.

Good Day,
Thank you for participating in this survey.

Your responses are completely anonymous and confidential. Your name will never be connected with your answers to the questions that follow. The survey consists of 29 items and takes at most 20 minutes.

(New Page)
1. Age:
2. Please mark your sex (Female / Male)
3. Please write your area of study:

(New Page) *This page was only provided at Conditions 2 and 4.*
Below you find a newspaper article regarding child labor and textile industry. IT IS VERY IMPORTANT THAT YOU READ THIS ARTICLE CAREFULLY BEFORE YOU CLICK NEXT!

Was the shirt on your back made using forced child labor?

The number of child workers around the world remains extremely high with 73 million children from 10-14 years old now employed worldwide, more than 13 percent of all children in this age group, the International Labour Organization (ILO) announced today in Geneva.

It's an uncomfortable thought, one that we normally push to the back of our minds as we search out bargains. And companies make it easy for us to ignore the problem - reassuring the consumer that manufacturers adhere to strict codes of conduct. It is often claimed it is too difficult - in a global marketplace - to ever be certain where materials such as cotton have come from.

The geographical distribution of production in the textiles and clothing industries have changed dramatically in the past 40 years, with production shifting to the developing world, especially to Asia, according to a report by the International Labour Office. Child labour, according to the report, is still very much a reality in these sectors and the number of clandestine workshops has grown exponentially in recent years in the developing countries producing for multinational clothing brands. Currently, about 60% of world clothing exports are manufactured in developing countries, according to the report, which says that Asia is now the world's largest supplier, producing almost one third of all clothing exports. In manufacturing industries, children are most likely to be employed 'when their labour is less expensive or less troublesome than that of adults, and when other labour is scarce, and when they are considered irreplaceable by reason of their size or perceived dexterity' says an ILO report prepared for the ministerial meeting.

Stores say they have little or no control over where the raw materials come from and they rely on their suppliers to source the materials. But is that really the case? What if you were able to follow the trail from the clothes rack to the factory and back to the fields where the cotton has been harvested? That's exactly how some reporters did find out simply heartbreaking news about how children are forced to work in developing countries. Many child laborers are in exploitative conditions with low wages, long working hours, no medical or welfare facilities, no proper meals or accommodations, no permanent employment status, exposed to dangerous working environments with few educational opportunities. Some

children are working under bonded and slave-like conditions, harmful to physical, emotional growth and development. Even those who find jobs in favorable working conditions are outside the social safety nets of family, school, trade union, employment or welfare laws. These conditions are unacceptable for children. On the other hand, western clothing chains increasingly get their products made in Asia, taking advantage of cheaper labour.

(New Page)

Below you see the statements of two multinational textile companies, Company A and Company B, regarding child labor taken from their own websites of Social Responsibility respectively. Please read them carefully and answer the following questions.

Statements provided only at Conditions 1 and 3:

Company A

We strictly prohibit the use of child labor and this is not negotiable for us. Fortunately, in our suppliers' workshops, we find each year that there is no instance of child labor. We have 90 people located around the world whose job is to ensure compliance with our policy.

Company B

We strictly prohibit the use of child labor and this is not negotiable for us. Unfortunately, in our suppliers' workshops, we discover each year some instances of child labor. We have 90 people located around the world whose job is to ensure compliance with our policy.

Statements provided only at Conditions 2 and 4:

Company A

We strictly prohibit the use of child labor and this is not negotiable for us. Fortunately, in our suppliers' workshops, we find each year that there is no instance of child labor. We have 90 people located around the world whose job is to ensure compliance with our policy.

Company B

We strictly prohibit the use of child labor and this is not negotiable for us. Unfortunately, in 2008, in our suppliers' workshops, we discovered 7 instances of child labor. As soon as we were alerted to this situation, we stopped the work order and prevented the product from being sold in stores. While violations of our strict prohibition on child labor in factories that produce product for the company are extremely rare, we have called an urgent meeting with our suppliers in the region to reinforce our policies and ceased business with 3 factories that wouldn't keep up with our policy. We are deeply concerned and upset by this allegation. We have 90 people located around the world whose job is to ensure compliance with our policy.

4. Given this information, and they have similar products within the same price range, from which company would you prefer to buy from?

Company A

Company B

(New Page)

5. Please explain your choice briefly:

(New Page)

Please note that the questions from 4 to 25 are all about the same statements that you have just read. A copy of it will be provided at the top of each page in case you want to have a look at it again. Please note that it is exactly the SAME information

that you have read at the beginning.

(New Page)

6. Please state how likely would you be willing to buy from Company A and Company B separately:

I definitely would buy from this company

I probably would buy from this company

I might buy from this company

I probably would not buy from this company

I definitely would not buy from this company

(New Page) *Items 7-14; Trust scale of 8 items measured on seven-point Likert scale (Saparito, et. al. 2004)*

Please indicate the extent to which you agree with each of the statements below with respect to the Company A and Company B separately.

The scale provided was the following:

1 (Strongly Disagree) / 2 (Disagree) / 3 (Somewhat Disagree) / 4 (Neutral) / 5 (Somewhat Agree) / 6 (Agree) / 7 (Strongly Agree)

7. I can freely share concerns and problems with this company about their operations and know that they would be interested in listening.

8. I share common values with this company.

9. If I shared my concerns on child labor with this company, I know they would respond constructively.

10. I feel that this company would act in a manner consistent with their statement.

11. This company approaches its operations with professionalism and dedication.

12. Given this company's statement, I see no reason to doubt their honesty and commitment to eliminate child labor.

13. I can rely on this company not to abuse child labor by careless operations.
14. If people knew more about this company and its background, they would be more concerned and monitor its operations more closely.

(New Page) *items 15-18; scale of Sincerity of 4 items measured on a seven-point Likert scale from 1 (Strongly Disagree) to 7 (Strongly Agree)*
15. This company sincerely cares about child labor.
16. This company has genuine concerns about the use of child labor in its suppliers' facilities.
17. This company is truly committed to eliminating child labor.
18. I believe this company is accurately stating the level of child labor in its suppliers.

(New Page) *items 19-23, attitude scale of Priester & Petty (2003), five semantic differential items rated on a seven-point Likert scale from -3 to 3.*
Please state how do you feel about the Company A and Company B by marking a number on the following lines below from -3 to 3.
19. Negative-Positive / 20. Harmful-Beneficial / 21. Foolish-Wise
22. Bad-Good / 23. Unfavorable-Favorable

(New Page) *Manipulation Check*
24. In its statement regarding child labor, Company A states that they have found no instance of child labor in the workshops of its suppliers. (True / False)
25. In its statement regarding child labor, Company B states that they have found some instances of child labor in the workshops of its suppliers. (True / False)

(New Page) *Item 26, 4 items in it, Attitude Towards Child Labor Scale, measured on a seven-point Likert Scale from 1(Strongly Disagree) to 7 (Strongly Agree).*
Please note that the questions numbered as 26 and 27 are about your own

PERSONAL thoughts, NOT related about the information you have read at this survey.
Please state how much you agree to these statements personally.

26. Please state how much you agree to the following statements on child labor.
Use of child labor in manufacturing workshops is unacceptable.
It is exploitative for textile multinationals to employ child labor in order to decrease their costs.
Child labor can never be excused.

(New Page) *Item 27, Trust Propensity Scale of 3 items version of Rotter (1971) general trust scale, measured on a seven-point Likert scale from 1 (Strongly Disagree) to 7 (Strongly Agree).*
27. Please state how much you agree to the following statements.
One should be very cautious with strangers.
Most people can be counted on to do what they say they will do.
These days, you must be alert or someone is likely to take advantage of you.

(New Page)
28. In the past, I bought a product from a company that in my opinion is using child labor. (Yes / No)
29. If your answer to the previous question is yes, please comment why?
(If not, please skip question)

B.2. Descriptive Statistics of Sincerity, Trust and Attitude towards Company

Table B.1. Analysis of Sincerity Scale

Sincerity on a Scale from 1 to 7					
	Corrective Actions	**Article**	**Mean**	**Std. Deviation**	**N**
Sincerity Company B (with negative CSR information)	0	0	3.96	1.77	40
		1	4.49	1.22	40
	Total		4.23	1.54	80
	1	0	5.21	0.94	40
		1	5.33	0.99	40
	Total		5.27	0.96	80
TOTAL		0	4.59	1.55	80
		1	4.91	1.18	80
	Total		4.75	1.38	160
Sincerity Company A (with positive CSR information)	0	0	4.68	1.69	40
		1	4.37	1.08	40
	Total		4.52	1.42	80
	1	0	4.28	1.21	40
		1	4.28	1.14	40
	Total		4.28	1.17	80
TOTAL		0	4.48	1.47	80
		1	4.32	1.11	80
	Total		4.40	1.30	160
Sincerity Difference of Company B & A (Company B – A)	0	0	- 0.71	2.24	40
		1	0.12	1.35	40
	Total		- 0.30	1.89	80
	1	0	0.93	1.33	40
		1	1.04	1.34	40
	Total		0.99	1.33	80
TOTAL		0	0.11	2.01	80
		1	0.58	1.42	80
	Total		0.35	1.75	160

Table B.2. Analysis of Trust Scale

Trust on a Scale from 1 to 7					
	Corrective Actions	**Article**	**Mean**	**Std. Deviation**	**N**
Trust Company B (with negative CSR information)	0	0	4.15	1.40	40
		1	4.63	0.98	40
	Total		4.39	1.23	80
	1	0	5.10	1.07	40
		1	5.18	0.88	40
	Total		5.14	0.97	80
TOTAL		0	4.62	1.33	80
		1	4.90	0.96	80
	Total		4.76	1.17	160
Trust Company A (with positive CSR information)	0	0	4.68	1.35	40
		1	4.39	0.97	40
	Total		4.54	1.17	80
	1	0	4.47	1.01	40
		1	4.35	0.95	40
	Total		4.41	0.98	80
TOTAL		0	4.58	1.19	80
		1	4.37	0.95	80
	Total		4.47	1.08	160
Trust Difference of Company B & A (Company B – A)	0	0	- 0.54	1.85	40
		1	0.24	1.26	40
	Total		- 0.15	1.62	80
	1	0	0.63	1.33	40
		1	0.83	1.02	40
	Total		0.73	1.18	80
TOTAL		0	0.05	1.70	80
		1	0.53	1.18	80
	Total		0.29	1.48	160

Table B.3. Analysis of Attitude towards the Company Scale

Attitude towards the Company on a Scale from – 3 to 3					
	Corrective Actions	**Article**	**Mean**	**Std. Deviation**	**N**
Attitude towards the company Company B (with negative CSR information)	0	0	- 0.06	1.60	40
		1	0.43	1.30	40
	Total		0.19	1.47	80
	1	0	1.08	1.17	40
		1	0.96	1.16	40
	Total		1.02	1.16	80
TOTAL		0	0.51	1.51	80
		1	0.69	1.25	80
	Total		0.60	1.38	160
Attitude towards the company Company A (with positive CSR information)	0	0	0.70	1.57	40
		1	0.47	1.27	40
	Total		0.59	1.43	80
	1	0	0.28	1.27	40
		1	0.17	1.11	40
	Total		0.22	1.19	80
TOTAL		0	0.49	1.44	80
		1	0.32	1.19	80
	Total		0.40	1.32	160
Attitude towards the company Difference of Company B & A (Company B – A)	0	0	- 0.76	2.38	40
		1	- 0.04	1.74	40
	Total		- 0.40	2.11	80
	1	0	0.81	1.75	40
		1	0.79	1.59	40
	Total		0.80	1.66	80
TOTAL		0	0.02	2.22	80
		1	0.38	1.71	80
	Total		0.20	1.98	160

B.3. SPSS Results of Logistic Regression

Logistic Regression with relative (Company B – Company A) scales as predictors of preference to buy

Case Processing Summary

Unweighted Cases (a)		N	Percent
Selected Cases	Included in the Analysis	160	100.0
	Missing Cases		.0
	Total	160	100.0
	Unselected Cases		.0
	Total	160	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
0	
1	1

Categorical Variables Codings

		Frequency	Parameter Coding (1)
article	0	80	1.000
	1	80	.000
plan	0	80	1.000
	1	80	.000

Block 0: Beginning Block

Classification Table (a,b)

Observed			Predicted		
			company		
			0	1	Percentage Correct
Step 0	company	0	86		100.0
		1	74		.0
		Overall Percentage			53.8

a. Constant is included in the model.

b. The cut value is .500

Variables in the equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-.150	.159	.898	1	.343	.860

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	plan(1)	32.583	1	.000
		article(1)	6.436	1	.011
		sincerityb_a	46.101	1	.000
		trustb_a	33.326	1	.000
		attitudeb_a	45.666	1	.000
		pr	.663	1	.416
		cl	2.277	1	.131
		Overall Statistics	66.523	7	.000

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	89.348	7	.000
	Block	89.348	7	.000
	Model	89.348	7	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	ke R Square
1	131.599 (a)	.428	.572

a. Estimation terminated at iteration number 6.

Classification Table (a)

			Predicted		
			company		
	Observed		0	1	Percentage Correct
Step 1	company	0	73	13	84.9
		1	13	61	82.4
		Overall Percentage			83.8

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	plan(1)	-1.839	.459	16.044	1	.000	.159
	article(1)	-1.366	.473	8.345	1	.004	.255
	sincerityb_a	.659	.291	5.144	1	.023	1.933
	trustb_a	-.107	.292	.135	1	.713	.898
	attitudeb_a	.507	.196	6.691	1	.010	1.660
	pr	-.106	.199	.286	1	.593	.899
	cl	.016	.179	.008	1	.930	1.016
	Constant	1.313	1.635	.645	1	.422	3.717

Logistic Regression with sincerity, trust, and attitude towards the company (measured for both companies separately) as predictors of preference to buy

Case Processing Summary

Unweighted Cases (a)		N	Percent
Selected Cases	Included in the Analysis	160	100.0
	Missing Cases		.0
	Total	160	100.0
	Unselected Cases		.0
	Total	160	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
0	
1	1

Categorical Variables Codings

			Parameter Coding
		Frequency	(1)
article	0	80	1.000
	1	80	.000
plan	0	80	1.000
	1	80	.000

Block 0: Beginning Block

Classification Table (a,b)

Observed			Predicted		
			company		
			0	1	Percentage Correct
Step 0	company	0	86		100.0
		1	74		.0
		Overall Percentage			53.8

a. Constant is included in the model.

b. The cut value is .500

Variables in the equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-.150	.159	.898	1	.343	.860

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	plan(1)	32.583	1	.000
		article(1)	6.436	1	.011
		sincerityn	16.246	1	.000
		sincerityp	23.597	1	.000
		trustn	13.410	1	.000
		trustp	15.773	1	.000
		an	25.132	1	.000
		ap	24.036	1	.000
		pr	.663	1	.416
		cl	2.277	1	.131
		Overall Statistics	69.298	10	.000

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	94.138	10	.000
	Block	94.138	10	.000
	Model	94.138	10	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	ke R Square
1	126.768 (a)	.445	.594

a. Estimation terminated at iteration number 6.

Classification Table (a)

			Predicted		
			company		
	Observed		0	1	Percentage Correct
Step 1	company	0	74	12	86.0
		1	11	63	85.1
		Overall Percentage			85.6

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	plan(1)	-2.068	.497	17.285	1	.000	.126
	article(1)	-1.527	.499	9.375	1	.002	.217
	sincerityn	.439	.334	1.726	1	.189	1.552
	sincerityp	-1.065	.386	7.613	1	.006	.345
	trustn	-.193	.345	.314	1	.575	.824
	trustp	.266	.389	.465	1	.495	1.304
	an	.658	.265	6.183	1	.013	1.931
	ap	-.430	.254	2.864	1	.091	.651
	pr	-.101	.208	.235	1	.628	.904
	cl	.026	.189	.019	1	.889	1.027
	Constant	3.845	2.327	2.730	1	.098	46.749

B.4. SPSS Results of Multiple Variable-General Linear Model Analysis

```
GLM sincerityb_a sincerityp sincerityn WITH plan article
  /METHOD=SSTYPE(3)
  /INTERCEPT=INCLUDE
  /CRITERIA=ALPHA(.05)
  /DESIGN=plan article.
```

Multivariate Tests[b]

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.864	497.211	2.000	156.000	0.000
	Wilks' Lambda	.136	497.211	2.000	156.000	0.000
	Hotelling's Trace	6.374	497.211	2.000	156.000	0.000
	Roy's Largest Root	6.374	497.211	2.000	156.000	0.000
plan	Pillai's Trace	.170	15.949[a]	2.000	156.000	0.000
	Wilks' Lambda	.830	15.949[a]	2.000	156.000	0.000
	Hotelling's Trace	.204	15.949[a]	2.000	156.000	0.000
	Roy's Largest Root	.204	15.949[a]	2.000	156.000	0.000
article	Pillai's Trace	.023	1.842[a]	2.000	156.000	0.162
	Wilks' Lambda	.977	1.842[a]	2.000	156.000	0.162
	Hotelling's Trace	.024	1.842[a]	2.000	156.000	0.162
	Roy's Largest Root	.024	1.842[a]	2.000	156.000	0.162

a. Exact statistic

b. Design: Intercept + plan + article

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	sincerityb_a	74.891[a]	2	37.446	14.270	.000
	sincerityp	3.254[b]	2	1.627	.962	.385
	sincerityn	47.641[c]	2	23.820	14.645	.000
Intercept	sincerityb_a	15.141	1	15.141	5.770	.017
	sincerityp	1127.767	1	1127.767	666.556	.000
	sincerityn	881.563	1	881.563	542.006	.000
plan	sincerityb_a	65.985	1	65.985	25.147	.000
	sincerityp	2.316	1	2.316	1.369	.244
	sincerityn	43.577	1	43.577	26.792	.000
article	sincerityb_a	8.907	1	8.907	3.394	.067
	sincerityp	.938	1	.938	.554	.458
	sincerityn	4.064	1	4.064	2.499	.116
Error	sincerityb_a	411.968	157	2.624		
	sincerityp	265.633	157	1.692		
	sincerityn	255.358	157	1.626		
Total	sincerityb_a	505.938	160			
	sincerityp	3368.688	160			
	sincerityn	3908.250	160			
Corrected Total	sincerityb_a	486.859	159			
	sincerityp	268.887	159			
	sincerityn	302.998	159			

a. R Squared = .154 (Adjusted R Squared = .143)

b. R Squared = .012 (Adjusted R Squared = .000)

c. R Squared = .157 (Adjusted R Squared = .146)

```
GLM trustb_a trustn trustp WITH plan article
  /METHOD=SSTYPE(3)
  /INTERCEPT=INCLUDE
  /CRITERIA=ALPHA(.05)
  /DESIGN=plan article.
```

Multivariate Tests[b]

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.907	756.377	2.000	156.000	0.000
	Wilks' Lambda	.093	756.377	2.000	156.000	0.000
	Hotelling's Trace	9.697	756.377	2.000	156.000	0.000
	Roy's Largest Root	9.697	756.377	2.000	156.000	0.000
plan	Pillai's Trace	.116	10.275[a]	2.000	156.000	0.000
	Wilks' Lambda	.884	10.275[a]	2.000	156.000	0.000
	Hotelling's Trace	.132	10.275[a]	2.000	156.000	0.000
	Roy's Largest Root	.132	10.275[a]	2.000	156.000	0.000
article	Pillai's Trace	.030	2.431[a]	2.000	156.000	0.091
	Wilks' Lambda	.970	2.431[a]	2.000	156.000	0.091
	Hotelling's Trace	.031	2.431[a]	2.000	156.000	0.091
	Roy's Largest Root	.031	2.431[a]	2.000	156.000	0.091

a. Exact statistic

b. Design: Intercept + plan + article

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	trustb_a	40.131[a]	2	20.066	10.211	.000
	trustn	25.477[b]	2	12.738	10.497	.000
	trustp	2.358[c]	2	1.179	1.015	.365
Intercept	trustb_a	8.138	1	8.138	4.141	.044
	trustn	963.333	1	963.333	793.834	.000
	trustp	1148.555	1	1148.555	989.101	.000
plan	trustb_a	30.625	1	30.625	15.585	.000
	trustn	22.313	1	22.313	18.387	.000
	trustp	.657	1	.657	.565	.453
article	trustb_a	9.506	1	9.506	4.838	.029
	trustn	3.164	1	3.164	2.607	.108
	trustp	1.702	1	1.702	1.465	.228
Error	trustb_a	308.511	157	1.965		
	trustn	190.523	157	1.214		
	trustp	182.310	157	1.161		
Total	trustb_a	362.156	160			
	trustn	3847.406	160			
	trustp	3386.531	160			
Corrected Total	trustb_a	348.642	159			
	trustn	216.000	159			
	trustp	184.668	159			

a. R Squared = .115 (Adjusted R Squared = .104)

b. R Squared = .118 (Adjusted R Squared = .107)

c. R Squared = .013 (Adjusted R Squared = .000)

```
GLM attitudeb_a an ap WITH plan article
 /METHOD=SSTYPE(3)
  /INTERCEPT=INCLUDE
  /CRITERIA=ALPHA(.05)
  /DESIGN=plan article.
```

Multivariate Tests[b]

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.084	7.137[a]	2.000	156.000	.001
	Wilks' Lambda	.916	7.137[a]	2.000	156.000	.001
	Hotelling's Trace	.092	7.137[a]	2.000	156.000	.001
	Roy's Largest Root	.092	7.137[a]	2.000	156.000	.001
plan	Pillai's Trace	.106	9.202[a]	2.000	156.000	.000
	Wilks' Lambda	.894	9.202[a]	2.000	156.000	.000
	Hotelling's Trace	.118	9.202[a]	2.000	156.000	.000
	Roy's Largest Root	.118	9.202[a]	2.000	156.000	.000
article	Pillai's Trace	.009	.688[a]	2.000	156.000	.504
	Wilks' Lambda	.991	.688[a]	2.000	156.000	.504
	Hotelling's Trace	.009	.688[a]	2.000	156.000	.504
	Roy's Largest Root	.009	.688[a]	2.000	156.000	.504

a. Exact statistic

b. Design: Intercept + plan + article

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	attitudeb_a	62.331[a]	2	31.165	8.682	.000
	an	29.185[b]	2	14.593	8.322	.000
	ap	6.446[c]	2	3.223	1.871	.157
Intercept	attitudeb_a	17.710	1	17.710	4.934	.028
	an	.481	1	.481	.275	.601
	ap	24.031	1	24.031	13.949	.000
plan	attitudeb_a	57.360	1	57.360	15.980	.000
	an	27.889	1	27.889	15.905	.000
	ap	5.256	1	5.256	3.051	.083
article	attitudeb_a	4.970	1	4.970	1.385	.241
	an	1.296	1	1.296	.739	.391
	ap	1.190	1	1.190	.691	.407
Error	attitudeb_a	563.549	157	3.589		
	an	275.294	157	1.753		
	ap	270.471	157	1.723		
Total	attitudeb_a	632.200	160			
	an	362.560	160			
	ap	303.000	160			
Corrected Total	attitudeb_a	625.880	159			
	an	304.479	159			
	ap	276.918	159			

a. R Squared = .100 (Adjusted R Squared = .088)

b. R Squared = .096 (Adjusted R Squared = .084)

c. R Squared = .023 (Adjusted R Squared = .011)

B.5. SPSS Macro Output of the Multiple Mediation Model with Disclosing Corrective Action as the Proposed Mediator

```
GET
  FILE='F:\BACK UP AS OF FEB. 19 2010\spssdataNov13.sav'.
DATASET NAME Conjunto_de_datos1 WINDOW=FRONT.
Preserve.
Set printback = Off.
```

Matriz

[Conjunto_de_datos1] F:\BACK UP AS OF FEB. 19 2010\spssdataNov13.sav

Run MATRIX procedure:

Dependent, Independent, and Proposed Mediator Variables:
DV = company
IV = plan
MEDS = sincerit
trustb_a
attitude

Statistical Controls:
CONTROL= cl
pr

Sample size
160

Coding of Binary DV for analysis:

company	Analysis
,00	,00
1,00	1,00

IV to Mediators (a paths)

	Coeff	se	t	p
sincerit	1,2468	,2580	4,8320	,0000

trustb_a	,8502	,2243	3,7906	,0002
attitude	1,1381	,2974	3,8265	,0002

Direct Effects of Mediators on DV (b paths)

	Coeff	se	Z	p	Wald
sincerit	,5559	,2729	2,0366	,0417	4,1476
trustb_a	,0072	,2836	,0254	,9797	,0006
attitude	,4468	,1896	2,3567	,0184	5,5540

Total Effect of IV on DV (c path)

	Coeff	se	Z	p	Wald
plan	1,9411	,3589	5,4087	,0000	29,2536

Direct Effect of IV on DV (c-prime path)

	Coeff	se	Z	p	Wald
plan	1,5819	,4250	3,7223	,0002	13,8558

Partial Effect of Control Variables on DV

	Coeff	se	Z	p	Wald
cl	,0127	,1684	,0754	,9399	,0057
pr	-,0726	,1833	-,3960	,6921	,1569

Logistic Regression Summary For DV Model

-2LL	Model LL	McFadden	CoxSnell	Nagelkrk	n
140,8172	80,0890	,3625	,3938	,5261	160,0000

****

BOOTSTRAP RESULTS FOR INDIRECT EFFECTS

Indirect Effects of IV on DV through Proposed Mediators (ab paths)

	Data	boot	Bias	SE
TOTAL	1,2076	1,2976	,0900	,4414
sincerit	,6930	,7760	,0830	,4134
trustb_a	,0061	-,0079	-,0140	,3219
attitude	,5085	,5296	,0211	,3207

Bias Corrected and Accelerated Confidence Intervals

	Lower	Upper
TOTAL	,4621	2,0628

sincerit -,0035 1,5176
trustb_a -,6724 ,6408
attitude ,0082 1,2919
****

Level of Confidence for Confidence Intervals:
95
Number of Bootstrap Resamples:
5000
NOTE: Normal theory tests are not available for models with dichotomous outcomes

B.6. SPSS Macro Output of the Multiple Mediation Model with Awareness as the Proposed Mediator

Matriz

[Conjunto_de_datos1] F:\BACK UP AS OF FEB. 19 2010\spssdataNov13.sav

Run MATRIX procedure:

Dependent, Independent, and Proposed Mediator Variables:
DV = company
IV = article
MEDS = sincerit
trustb_a
attitude

Statistical Controls:
CONTROL= cl
pr

Sample size
160

Coding of Binary DV for analysis:

company	Analysis
,00	,00
1,00	1,00

IV to Mediators (a paths)

	Coeff	se	t	p
sincerit	,4736	,2736	1,7310	,0854
trustb_a	,4760	,2309	2,0614	,0409
attitude	,3637	,3092	1,1762	,2413

Direct Effects of Mediators on DV (b paths)

	Coeff	se	Z	p	Wald
sincerit	,7426	,2722	2,7283	,0064	7,4435
trustb_a	-,0497	,2710	-,1833	,8546	,0336
attitude	,4605	,1864	2,4703	,0135	6,1023

Total Effect of IV on DV (c path)

	Coeff	se	Z	p	Wald
article	,8442	,3285	2,5694	,0102	6,6019

Direct Effect of IV on DV (c-prime path)

	Coeff	se	Z	p	Wald
article	1,0030	,4178	2,4005	,0164	5,7624

Partial Effect of Control Variables on DV

	Coeff	se	Z	p	Wald
cl	,0505	,1690	,2987	,7652	,0892
pr	-,0840	,1831	-,4587	,6464	,2104

Logistic Regression Summary For DV Model

-2LL	Model LL	McFadden	CoxSnell	Nagelkrk	n
149,4586	71,4476	,3234	,3602	,4811	160,0000

****

BOOTSTRAP RESULTS FOR INDIRECT EFFECTS

Indirect Effects of IV on DV through Proposed Mediators (ab paths)

	Data	boot	Bias	SE
TOTAL	,4956	,5626	,0671	,4196
sincerit	,3517	,3840	,0323	,2732
trustb_a	-,0236	-,0134	,0102	,1692
attitude	,1675	,1920	,0245	,2055

Bias Corrected and Accelerated Confidence Intervals

	Lower	Upper
TOTAL	-,2199	1,3557
sincerit	-,0351	1,0347
trustb_a	-,4358	,2868
attitude	-,0893	,7099

****

Level of Confidence for Confidence Intervals:

95

Number of Bootstrap Resamples:

5000

NOTE: Normal theory tests are not available for models with dichotomous outcomes

------ END MATRIX -----

C. APPENDIX TO CHAPTER 3

C.1. Instructions

Please note that explanations written with italic font weren't available to participants.

Page 1. *Introduction*

Good Day,

We would like to thank you for your participation to our survey regarding chocolate products. Please note that your responses are completely anonymous and confidential. Your name will never be connected with your answers to the questions that follow. The survey consists of 22 pages and takes at most 1 hour.

Please read the following questions carefully and answer accordingly. We would like to remind you that there is no right or wrong answer to the questions as we are merely interested in your personal opinion on the relevant issues.

Thanks in advance for your time.

Page 2. *Average price for a chocolate bar*

Please state what is the typical price for a 125 gr. chocolate bar of your preferred taste in Euros (€)? (Subjects are shown photos of milk and dark chocolate bars).
You should write the price to the box below as a decimal number (0.0).

Page 3. *Items on Chocolate Consumption*

I like chocolate very much. (1 Strongly Disagree to 7 Strongly Agree)
Please state how often do you eat chocolate.
(Once-Twice a week / Three-Four times a week / Five-Six times a week / Seven-Eight times a week / Nine-Ten times a week / More than Ten times a week)

Please state which of the following is your favorite flavor of a chocolate bar?
(Dark Chocolate / Milk Chocolate / White Chocolate)

Pages 4, 5, and 6 related with the video used to raise subjects' awareness are only shown at Conditions 4, 5, 6

Page 4

Next you will be asked to watch a video. You should watch the complete video before moving on to the next page, as you can't come back to the video once you go to the next page.
Please watch the video as if you would watch daily news on television.

The video that you are going to watch is taken from a broadcast by an independent, daily news program in U.S. called "Democracy Now!". Pioneering the largest public media collaboration in the U.S., Democracy Now's War and Peace Report claims to provide its audience an access to people and perspectives rarely heard in the U.S. corporate-sponsored media, including independent and international journalists, ordinary people from around the world who are directly affected by U.S. foreign policy, grassroots leaders and peace activists, artists, academics and independent analysts. Democracy Now is funded entirely through contributions from listeners, viewers, and foundations. They do not accept advertisers, corporate underwriting, or government funding in order to maintain their independence.

Page 5

To start watching the video, please go to the next page and click on the Play sign.
(Subjects watch the video described in the paper.)

Page 6

Please read the following statements carefully about the video that you just watched and state whether they are TRUE/FALSE.

The video is about the working conditions at the cocoa farms at the Ivory Coast including the use of child labor.

The invited speaker at the studio, Christian Parenti argues that big cocoa suppliers and chocolate companies are NOT really working very hard to improve the conditions at the Ivory Coast.

William Guyton, the president of the World Cocoa Foundation, which joins the program over phone, claims that they have several educational programs at the Ivory Coast.

Page 7. *Explanation*

At the next page, we will show you information about a chocolate manufacturer company "X" taken from its own webpage. Please read the following information about this company and their products carefully.

Page 8. *Company Statements*

No disclosure text shown only at Conditions 1 and 4

Company X

Our Chocolate

Experience our delicious chocolate crafted by Master Chocolatiers by refining the finest cocoa beans into an irresistibly smooth chocolate. Our Chocolatiers have dedicated over 50 years of passion to create the most delicious chocolates for you.

Positive Disclosure text shown only at Conditions 2 and 5

Company X

Our Chocolate

Experience our delicious chocolate crafted by Master Chocolatiers by refining the finest cocoa beans into an irresistibly smooth chocolate. Our Chocolatiers have dedicated over 50 years of passion to create the most delicious chocolates for you.

Our Responsibilities

We source great majority of our cocoa from West Africa, which produces 75% of the world's cocoa in Ghana, Ivory Coast, Nigeria and Cameroon. In some cases at the Ivory Coast, it has been reported that conditions of workers including children at cocoa farms are so bad that the cocoa workers can be considered slaves according to the definition of slavery issued by the UN.

For us, one person being exploited is too many. This is why we work very hard to be sure that our chocolate is free of child labour and any form of exploitation. As a chocolate company, we feel that the people in the cocoa fields deserve honest wages for their work and it is our responsibility to provide that. To make sure that no worker is subject to exploitation, we pay up to 20% more to our suppliers with the requirement that their working conditions reach our standards.
Therefore, our consumers can truly enjoy our delicious chocolate as it is harvested without any form of exploitation.

Negative Disclosure text shown only at Conditions 3 and 6

Company X

Our Chocolate

Experience our delicious chocolate crafted by Master Chocolatiers by refining the finest cocoa beans into an irresistibly smooth chocolate. Our Chocolatiers have dedicated over 50 years of passion to create the most delicious chocolates for you.

Our Responsibilities

We source great majority of our cocoa from West Africa, which produces 75% of the world's cocoa in Ghana, Ivory Coast, Nigeria and Cameroon. In some cases at Ivory Coast, it has been reported that conditions of workers including children at cocoa farms are so bad that the cocoa workers can be considered slaves according to the definition of slavery issued by the UN.

For us, one person being exploited is too many. Even if we work on it very hard, we still cannot be sure that our chocolate is completely free of child labour and other forms of exploitation. As a chocolate company, we feel that the people in the cocoa fields deserve honest wages for their work and it is our responsibility to provide that. We are determined to ensure that no worker is subject to exploitation. That is why we pay up to 20% more to our suppliers in order for their working conditions reach our standards. We are working hard to trace our suppliers and have them following our principles.

We hope that soon our consumers will be able to truly enjoy our delicious chocolate given that it will be harvested without exploitation.

Page 9

Having read the information about chocolate company "X", you will be shown the chocolates offered at company X's web shop at the next page. We are interested in how much would you pay for the chocolates they offer.

Page 10

Please state how much would you pay in Euros (€) at maximum to buy the following chocolate products from company X given what you have read about them previously.

You should write the prices to the boxes below as a decimal number (0.0).

Milk chocolate tablet - 125 gr.
(with at least 30% cocoa)

Dark chocolate tablet - 125 gr.
(with at least 72% cocoa)

Milk chocolate tablet - 50 gr.
(with at least 30% cocoa)

Dark chocolate tablet - 50 gr.
(with at least 72% cocoa)

Page 11

Please state whether your willingness to pay for Company X's 125 gr. chocolate tablet of your preferred taste (Milk/Dark) was higher or lower than the average price you stated at the beginning of the survey as the price of a typical 125 gr. chocolate of your preferred taste (higher / lower / the same)?

Please comment why?

Page 12. Mood Scale

Before you answer the rest of the questionnaire, we would like to know how you are feeling right at this moment. Close your eyes for a second and assess how you are feeling. Then, complete the following scale by circling the appropriate number in each row from 1 to 7. Please read the endpoints carefully.

(Very Unpleasant-Very Pleasant / Depressed-Cheerful / Annoyed-Pleased / Unhappy-Happy / In a Bad Mood-In a Good Mood)

Page 13. Attitude towards the Company

Please state how do you feel about this chocolate company by marking a number on the following lines below from -3 to 3.

(Negative-Positive / Harmful-Beneficial / Foolish-Wise / Bad-Good / Unfavorable-Favorable)

Page 14. Trust Scale

Please indicate the extent to which you agree with each of the statements below with respect to this chocolate company on the following scale.

1 (Strongly Disagree)
2 (Disagree)
3 (Somewhat Disagree)
4 (Neutral)
5 (Somewhat Agree)
6 (Agree)
7 (Strongly Agree)

I have the feeling that I can freely share concerns and problems with this company about their operations and know that they would be interested in listening.

I share common values with this company.

If I shared my concerns on child labor and slavery with this chocolate company, I know they would respond constructively.
I feel that this company would act in a manner consistent with their statement.
This company approaches its operations with professionalism and dedication.
Given this company's statement, I see no reason to doubt their honesty and commitment to eliminate child labor and slavery at cocoa plantations.
I can rely on this company not to abuse child labor and slavery by careless operations.
If people knew more about this company and its background, these people would be more concerned and monitor the company's operations more closely.

Page 15. Sincerity Scale This company sincerely cares about child labor and slavery.
This company has genuine concerns about the use of child labor and slavery at its suppliers' cocoa farms.
This company is truly committed to eliminating use of child labor and slavery.
I believe this company is accurately stating the level of child labor and slavery at its suppliers' cocoa farms.

Page 16. Perceived Consumer Effectiveness Scale
It is worthless for the individual consumer to do anything about child labor and slavery at poor countries.
When I buy products, I try to consider how my use of them will affect others.
Since one person cannot have any effect upon child labor and slavery, it doesn't make any difference what I do.
Each consumer's behavior can have a positive effect on society by purchasing products sold by socially responsible companies.

Page 17. Trust Propensity Scale

One should be very cautious with strangers.
Most people can be counted on to do what they say they will do.
These days, you must be alert or someone is likely to take advantage of you.

Page 18. Attitude towards Child Labor and Slavery at Cocoa Plants

Please note that the following questions are about your own personal thoughts, NOT related about the information you have read at this survey.

Use of child labor and slavery at cocoa farms in West Africa is unacceptable.
It is exploitative for chocolate companies to supply cocoa that is produced with child labor and slavery in order to decrease their costs.
Child labor and slavery at cocoa farms can never be excused.

Page 19. Past Purchase of Products from Unethical Companies

In the past, have you ever bought a product produced by child labor?
Yes / No / I don't know
If your answer to the previous question is yes, please comment why? (If not, please skip to the next question)

Page 20. Prior Awareness on Child Labor and Slavery at Cocoa Plants

Please state how well you were aware of the following facts BEFORE THIS SURVEY (BEFORE COMING TO THIS SESSION) by using the following scale.

1 (Never Heard)
2 (A little)
3 (Moderately)
4 (Quite a bit)
5 (Very Well)

West Africa collectively leads the world's cocoa crop used at the manufacture of chocolate.

Ivory Coast (Côte d'Ivoire) in West Africa is the country with the highest cocoa production.

Many large chocolate producers such as Cadbury, Hershey's and Nestle buy cocoa from the Ivory Coast.

There might be child labor and slavery involved in the chocolate I eat.

It has come to my attention that child labor and slavery still exists at cocoa plants at Ivory Coast (Côte d'Ivoire) farms and other West African cocoa producing nations.

Slave traders are trafficking boys ranging from the age of 12 to 16 from their home countries and are selling them to cocoa farmers in Ivory Coast (Cote d'Ivoire), West Africa.

Big chocolate companies claim that there is no way to ensure that their cocoa suppliers don't use child labor and slavery.

Page 21. Demographic Questions

Sex (Female / Male)

Age

Major

Monthly Spending (Please state how much money you spend on average in Euros (€) during one month to the box below as a numerical value.)

Page 22

You completed the survey. We thank you for your participation.

C.2. Scale Reliabilities

Table C.1. Scale Reliabilities

Scales	Cronbach's Alpha	Number of Items
Attitude towards company	0.924	5
Attitude towards child labor exploitation	0.649	3
Mood	0.916	5
Perceived consumer effectiveness	0.782	4
Prior Information on the CSR issue	0.828	7
Sincerity	0.899	4
Trust	0.853	8
Trust Propensity	0.729	3

C.3. Parameter Estimates of ANCOVA Analysis of WTP as the dependent variable with all participants

Table C.2. Parameter Estimates

Parameter	B	Std. Error	t	Sig.	95% Confidence Interval		Partial Eta Squared
					Lower Bound	Upper Bound	
Intercept	-.269	.628	-.428	.669	-1.514	.976	.002
Typicalprice	.928	.101	9.155	.000	.727	1.129	.435
mood	-.143	.069	-2.078	.040	-.279	-.007	.038
Consumer effectiveness	.313	.076	4.096	.000	.161	.464	.133
Attitude exploitation	-.002	.056	-.038	.970	-.114	.109	.000
[disclosure=1.00]	.148	.234	.632	.529	-.316	.613	.004
[disclosure=2.00]	.193	.233	.829	.409	-.268	.654	.006
[disclosure=3.00]	0[b]	.	.	.	.	.	.
[video=.00]	-.617	.238	-2.590	.011	-1.089	-.145	.058
[video=1.00]	0[b]	.	.	.	.	.	.
[disclosure=1.00] * [video=.00]	.758	.318	2.386	.019	.129	1.388	.050
[disclosure=1.00] * [video=1.00]	0[b]	.	.	.	.	.	.

[disclosure=2.00] * [video=.00]	.896	.320	2.801	.006	.262	1.530	.067
[disclosure=2.00] * [video=1.00]	0[b]	.	.	.	.	.	.
[disclosure=3.00] * [video=.00]	0[b]	.	.	.	.	.	.
[disclosure=3.00] * [video=1.00]	0[b]	.	.	.	.	.	.

a. Computed using alpha = 0.05

b. The parameter is set to zero because it is redundant.

Disclosure: 1 positive disclosure / 2 negative disclosure / 3 no disclosure (reference group)

Video: 0 having watched the video / 1 not watched the video (reference group)

When awareness is not raised by a video, relative to no disclosure (reference group), positive disclosure (disclosure=1) and negative disclosure (disclosure=2) respectively results in 0.148 € and 0.193 € higher WTP, which are both not significant.

In order to comment on the effect of disclosure on WTP when participants see the video, we will conduct further analysis, as the interaction variable is significant.

C.4. Parameter Estimates of ANCOVA Analysis of WTP as the dependent variable with participants who did not watch the video

Table C.3. Parameter Estimates

Parameter	B	Std. Error	t	Sig.	95% Confidence Interval		Partial Eta Squared
					Lower Bound	Upper Bound	
Intercept	.320	.724	.441	.661	-1.133	1.772	.004
typicalprice	.930	.096	9.675	.000	.737	1.123	.638
Attitude exploitation	-.014	.066	-.215	.830	-.146	.118	.001
Consumer effectiveness	.371	.082	4.541	.000	.207	.535	.280
mood	-.293	.081	-3.615	.001	-.456	-.131	.198
[disclosure=1.00]	.103	.197	.524	.602	-.292	.498	.005
[disclosure=2.00]	.097	.195	.501	.619	-.293	.488	.005
[disclosure=3.00]	0[a]	.	.	.	.	.	.

a. This parameter is set to zero because it is redundant.

b. R squared 75.1%

C.5. Parameter Estimates of ANCOVA Analysis of WTP as the dependent variable with participants who watched the video

Table C.4. Parameter Estimates

Parameter	B	Std. Error	t	Sig.	95% Confidence Interval		Partial Eta Squared
					Lower Bound	Upper Bound	
Intercept	-1.137	.940	-1.209	.232	-3.022	.748	.027
typicalprice	.945	.171	5.523	.000	.601	1.288	.365
attitude_exploitation	.017	.088	.191	.849	-.160	.194	.001
consumer_effectiveness	.251	.131	1.925	.060	-.011	.513	.065
mood	-.034	.107	-.318	.752	-.248	.180	.002
[disclosure=1.00]	.912	.256	3.567	.001	.399	1.426	.194
[disclosure=2.00]	1.128	.264	4.278	.000	.599	1.657	.257
[disclosure=3.00]	0[a]	.	.	.	.	.	.

a. This parameter is set to zero because it is redundant.

b. R-squared: 47.2%

When participants watch the video, relative to no disclosure, positive disclosure results in 0.912 € higher WTP and negative disclosure with 1.128 € higher WTP.

C.6. Parameter Estimates of ANCOVA Analysis of WTP as the dependent variable with participants who read the no disclosure statement

Table C.5. Parameter Estimates

Parameter	B	Std. Error	t	Sig.	95% Confidence Interval		Partial Eta Squared
					Lower Bound	Upper Bound	
Intercept	.363	.595	.610	.546	-.845	1.571	.011
typicalprice	.870	.125	6.958	.000	.616	1.124	.587
Attitude exploitation	-.088	.049	-1.782	.084	-.188	.012	.085
Consumer effectiveness	.164	.076	2.159	.038	.010	.319	.121
mood	-.022	.072	-.306	.761	-.168	.124	.003
[video=.00]	-.393	.180	-2.183	.036	-.758	-.027	.123
[video=1.00]	0[a]	.	.	.	.	.	.

a. This parameter is set to zero because it is redundant.

b. R-squared: 60.3%

C.7. Parameter Estimates of ANCOVA Analysis of WTP as the dependent variable with participants who read the positive disclosure statement

Table C.6. Parameter Estimates

Parameter	B	Std. Error	t	Sig.	95% Confidence Interval		Partial Eta Squared
					Lower Bound	Upper Bound	
Intercept	-1.540	1.532	-1.005	.322	-4.658	1.577	.030
typicalprice	.956	.181	5.287	.000	.588	1.323	.459
Attitude exploitation	.232	.168	1.378	.178	-.110	.573	.054
Consumer effectiveness	.194	.170	1.140	.262	-.152	.540	.038
mood	-.051	.181	-.283	.779	-.420	.318	.002
[video=.00]	.384	.364	1.052	.300	-.358	1.125	.032
[video=1.00]	0[a]	.	.	.	.	.	.

a. This parameter is set to zero because it is redundant.

b. R-squared: 49.1%

C.8. Parameter Estimates of ANCOVA Analysis of WTP as the dependent variable with participants who read the negative disclosure statement

Table C.7. Parameter Estimates

Parameter	B	Std. Error	t	Sig.	95% Confidence Interval		Partial Eta Squared
					Lower Bound	Upper Bound	
Intercept	-1.164	1.285	-.906	.371	-3.774	1.447	.024
typicalprice	.799	.195	4.093	.000	.402	1.196	.330
Attitude exploitation	.171	.107	1.605	.118	-.046	.387	.070
Consumer effectiveness	.529	.143	3.706	.001	.239	.818	.288
mood	-.333	.107	-3.118	.004	-.551	-.116	.222
[video=.00]	.048	.275	.175	.862	-.511	.608	.001
[video=1.00]	0[a]	.	.	.	.	.	.

a. This parameter is set to zero because it is redundant.

b. R-squared: 60.

D. PRELIMINARY STUDIES

D.1. Harm Reduction & The Pharmaceutical Industry

Abstract: This study highlights the importance of harm reduction as part of doing good and hence of corporate social responsibility. Applying this philosophy to the pharmaceutical industry, it briefly discusses pharmaceuticals' actions that might possibly harm stakeholders after providing a short introduction to the industry. By discussing the possible harmful actions that pharmaceuticals might have on its stakeholders, it provides a general guideline and a list of issues for those researchers and pharmaceuticals interested in harm reduction. Further, to be able to study or pursue policies of harm reduction, it argues that transparent communication of harm is necessary, at least at the level of policy makers. This chapter excludes the discussion of a necessary motivation system for pharmaceuticals to pursue harm reduction, as it is not the main focus.

a) Introduction

Harm reduction is a crucial part of doing well for all concerned and should be a part of corporate social responsibility. This paper concerns the characteristics and prerequisites of harm reduction as a corporate social responsibility policy. A pharmaceutical corporation that implements policies to reduce harm while improving philanthropic activities is the model for this paper. Actions taken by the corporation that might possibly harm its stakeholders are analyzed and remedial action is suggested.

b) Harm Reduction

Harm Reduction as a way of Doing Good

The definition and meaning of "Doing Good" is subjective and relative. Among different definitions and meanings, this paper discusses the importance of a particular way of doing good termed "harming less," which is defined as actions related to specific causes of identified harm. Acknowledging the diverse philosophical views about doing well, this paper should interest those who recognize harming less as a way of doing good. Based on the following characteristics of harm reduction, we argue that harming as little as possible is an efficient way and crucial part of doing good.

By avoiding harmful actions:

1. We gain efficient use of resources, including time. Reversing the results of a harmful action requires more resources and time. Also, some results such as certain effects on nature are irreversible.
2. By harming less, we avoid the unwanted effects of our actions on other people.
3. When trying to do good by reversing harmful actions that took place in the past, there is always a level of uncertainty involved. It may be uncertain whether or not our specific help will improve the situation in the long run. On the other hand, if a harmful action is avoided in the first place, we know that good ensues.[1]

Invisibility of Harm Reduction

One reason of why harm reduction is neglected as an effort to do well is its invisibility. As human beings, we have a tendency to reward things that are visible, and neglect good actions that are invisible. Prof. Taleb describes this phenomenon as "Silent Evidence" in his book Black Swan (Taleb 2007). If we avoid a harmful action, there is no drama at the end, and our action is neither recognized nor

[1] This argument is based on the approach that the success of any harm reduction and philanthropic activity should be measured by its results' evaluation neither by the initial investment nor the intentions.

rewarded. On the other hand, if we are trying to reverse the results of a harmful action, there is the drama involved. We tend to reward those who visibly help in many ways to reverse the results of harmful actions, both financially and psychologically.

We don't think helping and trying to reverse the results of harmful actions is bad. On the contrary, helping is very important and should be rewarded. Though our point is that we often forget and not see that harming less is more efficient as it is a less visible way of doing good.

While helping is more popular and rewarded relative to harming less, it creates a dangerous context. Helping blinds us to potential harm we might do while trying. For instance, an individual's support for Greenpeace to help preserve the oceans could shadow whether that person efficiently uses energy during daily activities and recycles, which if not could harm the oceans. In such a scenario, it is uncertain whether the net balance is good or bad. Therefore, we should think about what harm we can avoid, and how we can reverse the negative consequences of harmful actions that we choose not to avoid, or cannot be avoided.

To be able to do good as a person or a corporation, philanthropic or remedial activities are not the only consideration; ways to eliminate the harm permanently must be reviewed. Feeling that we are doing good, and not deceiving ourselves is an awareness/consciousness definitely not easy to attain, but well worth the effort.

One important aspect of avoiding harm is anticipating the results of our actions beforehand and evaluating them afterwards. This is a critical dimension in the discussion of doing good. Before taking an action, we should try to anticipate the direct and indirect results of our actions on all stakeholders as objectively as possible both in the short and the long run. We should also measure the efficacy of

our helpful actions or harm reduction policies through evaluation. Only then is it possible that we learn from what we achieve by helping more and harming less.

Application of Harm Reduction to Corporate Social Responsibility

In this section, I would like to move from the individual level of 'doing good' to the corporate level, which is identified by the concept of "Corporate Social Responsibility" (CSR).

CSR is as written by Kok (2001): "the obligation of the firm to use its resources in ways to benefit society, through committed participation as a member of society at large and improving welfare of society at large independent of direct gains of the company" (Kok et al. 2001). However, those who follow the definition of Friedman, which is doing business only to increase the profits and without regard to legality, should also find this paper interesting as profits and harm reduction can coexist simultaneously, though is not discussed in this chapter (Snider, Hill & Martin 2003).

Based on the definition of Kok, the four components of CSR identified by Carroll are economic, legal, ethical, and philanthropic. These components provide a framework to connect harm reduction to CSR where economic responsibility refers to (a) the responsibility of making profits and grow, (b) legal responsibility refers to respecting and obeying laws, (c) ethical refers to respecting the rights of others and (d) philanthropic refers to supporting the community and the society at large (Carroll 1999). While the economic and legal components have been discussed broadly, the philanthropic and ethical components deserve considerations. Even though philanthropic component is reviewed, in my opinion the most important and neglected component is the ethical one where we find harm reduction. Respecting the rights of others and the society at large requires anticipating the

results of our actions on others. Harming as little as possible is a very crucial part of an organization's respect for others.

We should not be fooled by the philanthropic activities of a corporation as they may take actions that are also disrespectful to our rights.

We should require the following conditions for an organization that claims to be Socially Responsible:

1. It obeys the law.
2. It respects the rights of others by minimizing the harm it causes.
3. If voluntarily wanted and claimed, it tries to help the society at large by philanthropic activities.
4. The effects of harmful actions and philanthropic activities are evaluated and published.

Minimizing harm is a must for an organization to state that it is socially responsible. Philanthropic activities should be voluntarily taken when an organization claims to care about the society at large. If corporations pursue this definition of Social Responsibility, the need for philanthropic activities would significantly decrease. By harming less, negative results are minimized, rather than requiring more effort to repair after harm has been done. Nature and human health are very good examples of such scenarios. When we destroy a natural site, or get a virus, we spend much more effort to repair the unwanted consequences than it would take to prevent the occurrence in the first place. Thus, through this understanding of the Corporate Social Responsibility, a more efficient use of resources results.

Both the philanthropic activities and prevention of harmful actions should be evaluated carefully in terms of their results rather than just the investment in them.

The primary measure of an investment's success, and its evaluation, should be the results. For instance, donating a huge number of dollars for HIV/AIDS medicine doesn't prove to be 'a good action' when there are no doctors available in Africa to analyze the mutations which require a changing drug mix each week. If a huge amount of drugs do not save any lives, this philanthropic activity should be acknowledged as unsuccessful, regardless of the financial value of drugs.

c) The Pharmaceutical Industry

In this section we discuss harm reduction within the context of the pharmaceutical industry, as it is the area of interest to us. We choose pharmaceutical industry as it has a special structure and importance in our lives, which will be discussed in the following section.

Overview of the Pharmaceutical Industry

As it produces the most valuable product for human being, health, the population the pharmaceutical industry addresses differentiates itself from other industries by the following characteristics.

1. Health is the most valuable good.
2. It determines the quality and the duration of life. Many people depend on medicine for their lives.
3. People who have economic power are willing to pay as much as it takes for their health maintenance.
4. People who cannot afford pharmaceutical products die; hence, it is a human rights issue.
5. It is an intensively specialized industry. Only medical professionals understand the subject and pharmaceutical products.

6. The misuse of pharmaceutical products may cause death.
7. With the regulations of the 1980 Bayh-Dole Act, and the 1984 Hatch-Waxman Act, pharmaceuticals profit from tax-funded research (Angell 2004).

Given the characteristics above, the industry is very powerful and profitable. The industry has grown 700 percent between 1980 and 2001 by value (Bluestone, Heaton & Lewis 2002) and has reached global sales of $602 billion at 2005 (IMS Health 2005).[2]

As a supporter of the thought that sees 'basic health care' as a primary good that everybody should have access to, we believe the great power of the pharmaceutical industry comes with a great responsibility as well. However, it is questionable whether the pharmaceutical companies fulfill their responsibilities properly. Therefore CSR in the pharmaceuticals industry requires a great deal of attention and analysis.

CSR in the Pharmaceutical Industry

Before analyzing CSR in the pharmaceutical industry, we should also recognize the difficulty involved for the pharmaceuticals. It is not easy to fulfill all of their responsibilities. However, the pressure on pharmaceuticals to be at their best is justified, as what is at stake is the human life.

People might have diverse opinions on whether or not the current pharmaceutical industry is socially responsible at the global level. Our personal experience determines our feelings for the pharmaceuticals. Patients' views can be contradictory as the industry saves lives of some and fails others. If one lives in

[2] For the global pharmaceutical sales and growth rate during 1998-2005 and its breakdown by region please see Appendix 1 (Study D.1.).

Africa, or lives in a developed country, but has lost someone to an unexpected adverse effect, he or she might not think the pharmaceuticals are socially responsible. On the other hand, each day there are many people whose diseases are being cured by pharmaceutical products. These people feel a great appreciation for the pharmaceutical industry, and hence, may think the industry is ethical without further questioning.

Analyzing the pharmaceutical industry objectively in terms of CSR is a difficult task[3]. This paper suggests that more can be done to save lives as there are several aspects of the industry that need to be improved ethically, which is evident by the scandals in the industry.[4]

To be socially responsible, the pharmaceutical industry should minimize the harm it is allowing, be transparent, foresee the effects of their actions or strategies, and evaluate their efficacy afterwards on all humanity, rather than just on their potential future customers. In their CSR reports, the pharmaceuticals should determine their harm reduction and philanthropic activities with measurable targets and evaluation. To create a pharmaceutical industry focused on the common good, we need to explore ways to motivate them to behave honorably until they are regulated and audited as our lives depend on it.

To capture the opportunities to improve the ethical standing of the industry for harm reduction, the possible aspects of the industry that it might be doing harm on human health and environment are summarized in the following list. In the later study D.2., one particular aspect of harm reduction will be discussed in particular. Each item in the list below deserves to be analyzed in detail looking for means to

[3] For the highlights on the global health status, please see Appendix 2 (Study D.1.).
[4] For the list of the past CSR scandals, please see Appendix 3 (Study D.1.).

minimize the harm, as the results of not doing so can be very serious and sometimes life threatening.

Pharmaceutical companies may cause harm by

1. Limiting access to medicines in the developing world by high pricing and enforcement of patents by TRIPS agreement (TRIPS 1994).
2. Refusing global tiered pricing systems with the arguments of parallel importing and reference pricing.[5]
3. Exploiting customers in the developing world by increasing the price of patented drugs.[6]
4. Following an inferior international ethical guideline.[7] No attempt to standardize the international ethics codes and enforcement of the WHO 'Good Clinical Practice Guideline', which has the broadest coverage of ethics[8].

---

[5] Parallel importing refers to the import of cheap drugs from the developing countries to the developed ones. Reference pricing refers to the use of the developing countries' price as a reference point in the negotiation with the developed countries (Bluestone, Heaton & Lewis 2002).

[6] As an example, we see that before its patent ran out, the price of Schering-Plough's top selling allergy pill, Claritin was raised thirteen times over the five years (Angell 2004).

[7] Currently, there are four international ethical guidelines that are most widely used (Idanpaan-Heikkila & Fluss 2005).
(1964) The World Medical Association's Declaration of Helsinki (2004 version at www.wma.net)
(1997) International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH): Guideline FOR Good clinical Practice (www.ich.org)
(1995) WHO: Guidelines for Good Clinical Practice for Trials on Pharmaceutical Products (www.who.int/medicines)
(2001) The European Parliament and the Council: Directive 2001/20/EC; Directive on Clinical Trials (www.europea.eu.int/eur-lex)

[8] By 2002, only Novartis and BMS (Bristol-Myers Squibb) state that they comply with the WHO Guideline for Good Clinical Practice.

5. Selective publication of clinical trial results, suppressing the negative contents.

6. Testing a new drug against a placebo (sugar pill); in most cases no comparison against an existing treatment.

7. Unclear communication of a drug's efficacy and safety, adverse drug effects.

8. Lack of focus on pharmacovigilance (Safety monitoring of medicinal products):

   a. No good communication of post-marketing communication of adverse drug effects.
   b. Underuse of "spontaneous reporting" of suspected adverse drug effects by medical professionals[9].
   c. Lack of drug safety monitoring and disclosure in the developing world as there is no enforcing party.

9. Me-too drugs (drugs that are versions of drugs that entered the market in the distant past)[10].

10. Scarcity of certain medicines.

   d. FDA requires only a 6 months notice beforehand for a pharmaceutical to stop producing a drug[11].

---

[9] For a proposed model to increase the spontaneous adverse effect reporting by physicians, please see Appendix 4 (Study D.1.).

[10] The percentage of me-too drugs of the drugs that the FDA has approved between 1998 and 2002 is given as 77%. The FDA categorizes them as being no better than the drugs that are already in the market (Angell 2004).

[11] Examples of such shortages are; the childhood vaccine scarcity that has been experienced in the U.S. Centers for Disease Control in 2000, the shortages of essential drugs used during labor in childbirth, in cardiac resuscitation, and snake bites in 2001. The statement, 'It was strictly a business decision', made by a representative of American Home Products regarding why the company stopped the making of 'isoprotenerol', a drug for cardiac resuscitation, strikes the unconcern for broader/ethical issues of the company (Angell 2004).

11. Misleading promotion.
    e. Creating the misconception that newer and expensive drugs are better than inexpensive older drugs[12].
    f. Leading to misuse of drugs:[13]
        - Inappropriate dosage
        - Excessive use of medicines; drug dependency.
12. Influence on politics:
    g. Major contributions to the election campaigns.
    h. Increasing power with the merger & acquisition trend in the industry.
13. Manufacturing process of drugs.
    i. Release of chemical waste that is harmful to environment and human health needs to be handled very carefully[14].
14. Negative influence on the research community.
    j. Dominates the clinical leaders and clinical training.

---

[12] Caleb Alexander from University of Chicago states that there is a nationwide shift away from older, inexpensive drugs with better-established safety and efficacy to newer, costly drugs with no real history. (He is a member of the academicians who examined records from two US national databases which tracked patient visits to their doctor between 1999 and 2002 (Bhattacharya, 2005). One example of such me-too drugs is Nexium. Nexium is a drug for heart burn that AstraZeneca patented in 2001, right before its other heart-burn drug, Prisolec, would go off the patent. Prisolec, was made up of an active and an inactive form of a particular molecule. AstraZeneca made its new drug just from the active molecule of Prisolec, named it Nexium and promoted it as a better, improved drug. They priced Nexium slightly below Prisolec, so that the users switched to Nexium without allowing for generic competition (Angell 2004).

[13] The $875 million settlement fee that 'TAP Pharmaceuticals' is obliged to pay for a marketing fraud in its prostate cancer drug, Lupron gives us an idea on the magnitude of the harm that has being done (Dembner 2001).

[14] The Corporate Citizenship report of Novartis provides, measured numeric usage of resources and the reduction of waste. This is an example of a communication of harm reduction on environment, which is common to several industries in addition to the pharmaceuticals.

k. Introduces profit motive to the universities.
l. Less research on Third World Diseases; focus on the rich population.
m. Less unbiased studies.
n. Affects the results of the clinical trials.
o. Less great innovations by the industry, but mostly me-too drugs (if so, they are the important innovations by taxpayer-funded research at academic institutions, small biotechnology companies, or the National Institute of Health).

d) Disclosing Negative Information

Communication of any harm reduction policy on the issues described above requires disclosure of negative information. Disclosing negative information, while at the same time being rewarded by the market, is an ethical challenge for pharmaceutical companies. Previously, I have mentioned the difficulty of rewarding for what is avoided, as we don't experience it. Rewarding a pharmaceutical company for harm reduction is also very challenging, as we are sensitive to the communication of negative information that might affect our health. Nevertheless, it is possible if the stakeholders of pharmaceutical companies think and act conscientiously of the importance of harm reduction.

As the alternative is challenging, we observe that pharmaceuticals hesitate to disclose negative information. The joint survey of the Oxfam, VSO, and Save the Children of the major 11 pharmaceuticals reveals that CSR reports of the pharmaceuticals focus on the philanthropic activities (Bluestone, Heaton & Lewis 2002). The communication of harming less is mentioned in very few cases, even though there is a hopeful starting communication of harm limited to the

environmental consequences[15]. Within their class, the survey classifies Novartis, GSK and BMS as the most transparent pharmaceuticals; Abbott, Boehringen, Astra Zeneca, Pfizer, Aventis and Merck as intermediate; Bayer and Hoffman as the least transparent pharmaceuticals.

e) Conclusion

This study reveals that harm reduction should be recognized as a crucial part of CSR; however, creating this consciousness is challenging as it is less visible and less emotional than philanthropic activities, and it requires the transparent communication of harm. Specifically, this chapter identified a list of the possible harmful actions of the industry. By doing so, we aim to give rise to further research on possible policies to reduce the harm of the pharmaceutical industry in addition to our broader objective of the recognition of the harm reduction in all industries as part of CSR. If corporations foresee the results of their actions, and do their best to reduce the negative ones, and evaluate them at the end, we should be better off as a society if society challenges and rewards them for doing so.

[15] For further detail on what pharmaceuticals communicate in their CSR reports, please see Appendix 5 (Study D.1.).

f) References for Preliminary Study D.1.

Angell, M.D. 2004, *The Truth About the Drug Companies*, Random House, NewYork.

Bhattacharya, S. 2005, "Up to 140,000 heart attacks linked to Vioxx", *Archives of Internal Medicine,* vol. 165, pp. 171, [online] Available at:<http://www.newscientist.com/article.ns?id=dn6918&print=true> [Accessed 28 November 2006].

Bluestone, K., Heaton, A. & Lewis, C. 2002, *Beyond Philanthropy: the pharmaceutical industry, corporate social responsibility and the developing world*, an Oxfam/Save the Children/VSO joint report.

Bogdanich, W. & Hooker, J. 2007, *From China to Panama, a Trail of Poisoned Medicine*, The New York Times*,* [online] Available at:<http://www.nytimes.com/2007/05/06/world/americas/06poison.html?ex=1181016000&en=5d7e25f9e69c414f&ei=5070> [Accessed 22 May 2007], Published 6 May 2007.

Borden, J. 2005, *An Interview with author, Jennifer Washburn*. Corporate Watch, [online] University, Inc., Available at:<http://www.corpwatch.org/article.php?id=12066> [Accessed 10 October 2006], Published online, 11 April 2005.

Boseley, S., Maley, J. & Goldenberg, S. 2006. *Doctors call for worldwide help in race to save lives of men who collapsed like dominoes in drug trial*. The Guardian, [online] Available at:<http://www.guardian.co.uk/science/2006/mar/17/frontpagenews.medicineandhealth> [Accessed 19 October 2006], Published 17 March 2006.

Carroll, A. 1999, Corporate Social Responsibility: Evolution of a Definitional Construct, *Business and Society,* vol. 38, no. 3, pp. 268-295.

Cox, S. 2005, *Exporting Cures, Importing Misery*, Corporate Watch, [online] Available at:<http://www.corpwatch.org/article.php?id=11798> [Accessed 10 October 2006], Published online, 19 January 2005.

Dembner, A. 2001, *Drug Firm to Pay $875M Fine for Fraud*, The Boston Globe, pp. A13, Published 4 October 2001.

Idanpaan-Heikkila, J.E. & Fluss, S. 2005, "Emerging International Norms for Clinical Testing", in *Ethics and the Pharmaceuticals Industry,* eds**.** Gorrie, T.M. & Santoro, M. A., Cambridge University Press, pp. 37-47.

Interlandi, J. 2006, *An Unwelcome Discovery*, The New York Times, [online] Available at:<http://www.nytimes.com/2006/10/22/magazine/22sciencefraud.html?ex=1181016000&en=b24a17618e460ed1&ei=5070> [Accessed 21 May 2007], Published 22 October 2006.

Hu X.H., Bull S.A. & Hunkeler, E.M. 2004, "Incidence and duration of side effects and those rated as bothersome with selective serotonin reuptake inhibitor treatment for depression: patient report versus physician estimate", *Journal of Clinical Psychiatry*, vol. 65, no. 7, pp. 959-965.

IMS. 2005, *IMS Health Press Room_Global Data Indices - Sales, 2005*, [online] Available at:<http://www.imshealth.com/ims/portal/front/indexC/0,2773,6599_77478579_0,00.html> [Accessed 3 October 2006].

Kok, P., Weile, T.V.D., McKenna, R., & Brown, A. 2001, "A Corporate Social Responsibility Audit within Quality Management Framework", *Journal of Business Ethics,* vol. 31, no. 4, pp. 285-297.

KPMG. 2005, *International Survey of Corporate Responsibility Reporting 2005*, University of Amsterdam and KPMG Global Sustainability Services.

Lascelles, M. 2006. *Hopeless in Herpes: Novartis suppress the data*, Pharma Watch, [online] Available at:<http://pharmawatch.blogspot.com> [Accessed 10 October 2006], Published online, 29 August 2006.

McGreal, C. 2001, *Shamed and humiliated - the drugs firms back down*, The Guardian, [online] Available at:<http://society.guardian.co.uk/hivaids/story/0,,475081,00.html> [Accessed 16 October 2006], Published online, 19 April 2001.

McHugh, D. 2003, *Bayer Sold HIV-Risky Meds*, CBS News, [online] Available at:<http://www.cbsnews.com/stories/2003/05/22/health/main555154.shtml> [Accessed 29 May 2007], Published 22 May 2003.

Mimkes, P. 2002, *Why Bayer's Corporate Image May Need a Face Lift - Coalition Against Bayer Dangers*, Corporate Watch, [online] Available at:<http://www.corpwatch.org/article.php?id=3132> [Accessed 10 October 2006], Published online, 19 July 2002.

Snider, J., Hill, R.P. & Martin, D. 2003, "Corporate Social Responsibility in the 21st Century: A View from the World's Most Successful Firms", *Journal of Business Ethics*, vol. 48, no. 2, pp. 175-187.

Taleb, N.N. 2007, *The Black Swan*, Random House, New York.

Teather, D. & Boseley, S. 2004, *Glaxo faces drug fraud lawsuit: Firm accused of keeping back negative trial results*, The Guardian, [online] Available at:<http://www.guardian.co.uk/medicine/story/0,11381,1230239,00.html> [Accessed 1 May 2007], Published 3 June 2004.

TRIPS. 1994, *Trade-Related Aspects of Intellectual Property Rights*, [online] Available at:<http://www.wto.org/english/docs_e/legal_e/27-trips.pdf> [Accessed 17 October 2006], Published 15 April 1994.

World Health Organization. 2006, *The World health report: Working together for health*, [online] Available at:<http://www.who.int/whr/en/> [Accessed 7 January 2007].

g) Appendix for Preliminary Study D.1.

Appendix 1 (Study D.1.)

Table D.1. Global Pharmaceutical Sales, 1998-2005

Global Sales US$B	1998	1999	2000	2001	2002	2003	2004	2005
Total World Market (current US$)	$298	$331	$356	$390	$427	$497	$559	$602
Growth Over Previous Year (Constant US$)	7%	11%	11%	13%	9%	10%	8%	7%

Source: IMS Health Total Market Estimates and Global Pharma Forecasts (includes IMS Audited and Unaudited Markets) All information current as of February 27, 2006.

Table D.2. Global Pharmaceutical Sales by Region, 2005

World Audited Market	2005 Sales (US$B)	% Global Sales	% Growth (Year-over-year) (Constant US$)
North America	$265.7	47.0%	5.2%
Europe	169.5	30.0	7.1
Japan	60.3	10.7	6.8
Asia, Africa and Australia	46.4	8.2	11.0
Latin America	24.0	4.2	18.5
Total IMS Audited*	$565.9	100%	6.9%

Source: IMS MIDAS®, MAT Dec 2005. All information current as of February 27, 2006. *Excludes unaudited markets. Sales cover direct and indirect pharmaceutical channel purchases in U.S. dollars from pharmaceutical wholesalers and manufacturers. The figures above include prescription and certain over-the-counter data and represent manufacturer prices. Totals may not add due to rounding.

Appendix 2 (Study D.1.)

Highlights on Global Public Health by the World Health Organization (WHO) Report 2006

Based on the World Health Statistics 2006 prepared by the WHO, the followings are some highlights reflecting the global public health status.

Table D.3. Main causes of death and global burden of disease (DALYs), world, all ages, projections for 2005 (WHO, 2005)

	DEATHS	DALYS
Communicable diseases, maternal and perinatal conditions, and nutritional deficiencies	30%	39%
Cardiovascular diseases	30%	10%
Cancer	13%	5%
Injuries	9%	13%
Chronic respiratory diseases	9%	4%
Other chronic diseases	7%	28%
Diabetes	2%	1%

DALY: disability-adjusted life years (DALYs), which combines years of healthy life lost to premature death with time spent in less than full health.

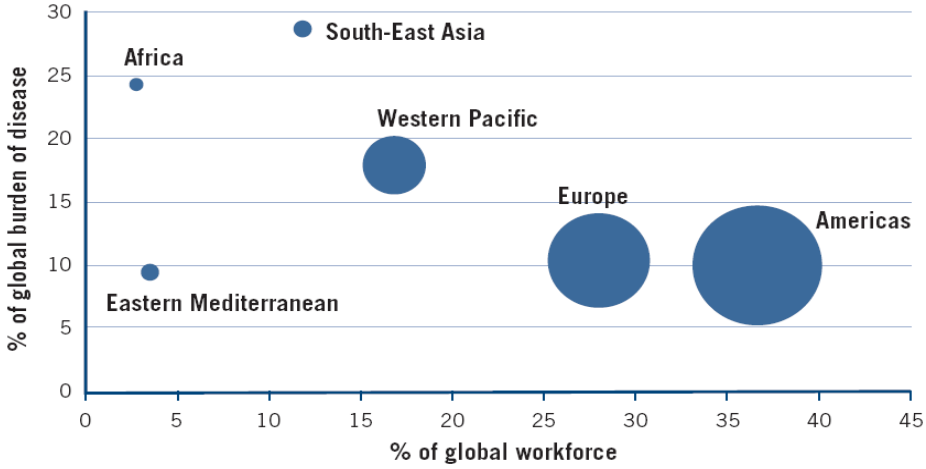
Source: *The World health report 2006 – Working together for health*. Geneva, World Health Organization, 2006 (http://www.who.int/whr/en/).

-Even though the overall child mortality decreased globally during the last decade, there is very little improvement to decline the gap between and within the countries.

-The estimated number of unvaccinated children is 27 million. The geography of these children is focused on certain areas. Among those countries that data is available, there are 10 countries with a DTP3 vaccines coverage levels below 50 %.

-As a region is under a higher disease burden, the less health expenditure and health workforce it has access to. For instance, while The African region carries more than 24 % of global burden of disease, it has access to less than 1% of the world's financial resources, external loans and grants are included.

Figure D.1. Distribution of health workers by level of health expenditure and burden of disease, WHO regions



Size of the dots is proportional to total health expenditure.

Source: *The World health report 2006 – Working together for health*. Geneva, World Health Organization, 2006 (http://www.who.int/whr/en/).

Appendix 3 (Study D.1.)

Past CSR Events in the Pharmaceutical Industry

- Diethylene glycol Case in Panama & China (Bogdanich & Hooker 2007). 100 deaths have been confirmed in Panama recently as a result of the medicines that are imported from China through Barcelona and Beijing to Panama, which had toxic syrup instead of a pure glycerin. It has been predicted that thousand of people have died around the world including children as a result of the usage of this poison in the production of counterfeiting drugs.
- In 2006 at British Northwick Pack Hospital, phase I of the first clinical trial of the drug TGN1412 on humans led connection of six volunteers to organ support machine from severe reactions, to which physicians couldn't know how to cure and called for consulting experts from around the world in an effort to save the patient's lives. This event led to the general discussion that also trial phase I and phase II should be registered before the recruitment of the first volunteer (Boseley, Maley & Goldenberg 2006).
- Poehlman Case (Interlandi 2006); "A doctor pleaded guilty to lying on a federal grant application and admitted to fabricating more than a decade's worth of scientific data on obesity, menopause and aging, much of it while conducting clinical research as a tenured faculty member at the University of Vermont. He presented fraudulent data in lectures and in published papers, and he used this data to obtain millions of dollars in federal grants from the National Institutes of Health — a crime subject to as many as five years in federal prison. His admission of guilt came after more than five years during which he denied the charges against him, lied under oath and tried to discredit his accusers. By the time he came clean; his case had grown into one of the most expansive cases of scientific fraud in U.S. history."

- Selective serotonin reuptake (SSRI) inhibitors are a class of antidepressants with a great controversy on efficacy and safety including the very well known drug Prozac of the pharmaceutical Eli Lilly (Hu, Bull & Hunkeler 2004). There have been many lawsuits regarding the suppressed adverse effect usage of SSRI's. One of the latest one was the lawsuit that GlaxoSmithKline, top British pharmaceutical, faced in the U.S. Glaxo was accused of not revealing negative clinical trial results (Teather & Boseley 2004).
- Novartis didn't provide the original data of the trial sessions of its drug Famvir and it was accused of delaying and limiting the release of the study report in order to avoid revealing that its drug was inferior to the Valtrex (Lascelles 2006).
- TAP Pharmaceuticals paid $875 million to settle civil and criminal charges of Medicaid and Medicare fraud in the marketing of its prostate cancer drug, Lupron. The company allegedly manipulated the price used for government reimbursement to ensure doctors would make at least $100 in profit per dose - a shot good for a few months - of the drug Lupron (Dembner 2001).
- Signing a deal with Berkeley University during 1998-2003, Novartis funded one-third of the research budget of a department within the university's College of Natural Resources. In exchange, Berkeley gave Novartis exclusive right to one-third of the discoveries generated by the department and allowed Novartis to occupy 40 % of the committee that decides where that research money is allocated (Borden 2005).
- Yale University exclusively licensed publicly funded research that developed the AIDS drug, D4T, to Bristol-Myers. Later, students at Yale, together with Doctors without Borders, tried to expose the fact that the university was actually profiting off of this patent, while the drug was too

expensive for the vast majority of people who suffer from AIDS throughout Africa and the world (Borden 2005).

- Kazipally, an industrial area in India home to the pharmaceutical factories is described to be a Bhopal tragedy in slow motion. People become sick and their ability to cultivate the land is eliminated based on the waste of the pharmaceutical companies. Hence it is discussed that exporting cures means importing misery for the local people (Cox 2005).
- Bayer admitted knowingly selling HIV-tainted blood clotting products, which infected around 50% of the hemophiliac community in developed countries in the early 90s. Subsequent class action suits in the U.S. were settled for $100,000 per claimant, while in Europe the taxpayers were left with the burden themselves (Mimkes 2002). Later on Bayer was also accused of selling an older version of the medication in Latin America and Asia while marketing a newer, safer product in the United States and Europe (McHugh 2003).
- Up to 140000 heart attacks has been linked to Vioxx, a drug produced by Pfizer, since its launch in 1999. Vioxx belongs to a drug group of CoX-2 inhibitors, which are produced as an alternative to traditionally used anti-inflammatory medicines such as ibuprofen in the treatment of chronic inflammation. Recent studies revealed that CoX-2 inhibitors increased the risk of heart attacks and weren't a safer alternative to traditional inflammation drugs as claimed. This case revealed the importance of comparison of different treatments and drug groups, which is not part of pharmaceuticals' agenda (Bhattacharya 2005).
- A group of 39 pharmaceutical companies has dropped its lawsuit against the government of South Africa on April 19, 2001 under an extremely high amount of international pressure. They had taken South Africa to court over its Medicines and Related Substances Act. The main issue was

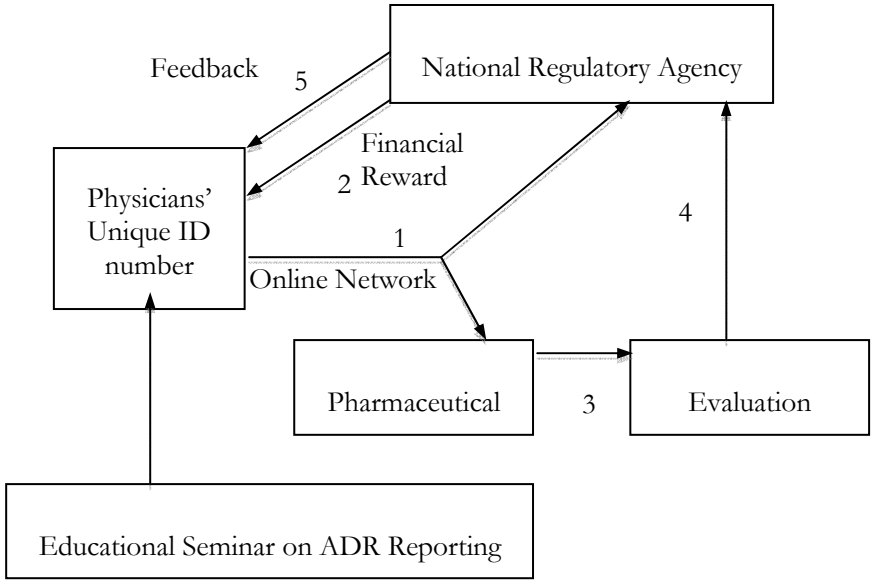
Amendment 15(c), which would allow TRIPS-compliant compulsory licensing and parallel imports of medicines in South Africa. The suit was first filed on February 18, 1998 (McGreal 2001).

Appendix 4 (Study D.1.)

Proposed Model to increase the spontaneous adverse effect by Physicians

Offering financial reward for each voluntary report anonymously by the pharmaceutical company to physicians increases the reporting rate when accompanied by an education program.

Figure D.2. Model of Spontaneous Adverse Effect Reporting



Appendix 5 (Study D.1.)

What do pharmaceuticals communicate at their CSR reports?

Oxfam, VSO, Save the Children Joint Survey (Bluestone, Heaton & Lewis 2002)

Seven out of the eleven companies that the survey has been sent, have a mission statement on their social responsibility. However, there are very few statements, action plans for the specific issues individually within the reports of the seven pharmaceuticals. The issues are generally discussed and hence not promise any effective results.

"Only two companies (Novartis and GSK) told us that they have a stated policy on access to medicines, with GSK's *Facing the Challenge* representing the industry's first attempt to address the issues of access in a comprehensive way. Appropriate use of medicines formed part of four companies' stated policies (Merck, GSK, BMS and AstraZeneca). The overall governance of CSR policies is varied, with only three companies willing to outline responsibilities for policy implementation. Merck and GSK have an explicit, additional CSR structure, with independent committees advising the board. AstraZeneca has appointed a non-executive director for CSR."

Table D.4. Overall Transparency Rating for Eleven Companies' Responses to the Oxfam, VSO, Save the Children Report.

Worst of class	Hoffman La Roche, Bayer
Intermediate	Abbott, Merck, Pfizer, Boehringer, Astra Zeneca, Aventis
Best in Class	Novartis, BMS, GSK

The report offers benchmarks on the five crucial aspects that need to be satisfied by a socially responsible pharmaceutical company. Based on the pharmaceutical companies' responses to their survey, it also summarizes the current position of the companies regarding these issues. This specific benchmark list provides an evaluation tool to governments, individuals and the NGOs to evaluate CSR policies of the pharmaceutical companies. At the same time, it provides the pharmaceutical companies with the necessary actions that need to be taken, which they can use in case they're willing to improve their CSR policy. I believe this is a great step towards making the CSR arguments more solid and based on results and standards rather than endless subjective discussions.

KPMG International Survey of Corporate Responsibility Reporting (2005)

The study analyzes global fortune 250 companies (G250) of which 8 are pharmaceuticals companies. It reports that at 2005, all those 8 pharmaceuticals had CSR reports (separate and published as part of the annual report. Within those 8 CSR reports, 5 mentions supply chain audit and 2 mentions access and affordability issues.

D.2. Voluntary Registry and Disclosure of Clinical Trials

Abstract: This study analyzes when choosing among drugs that have similar characteristics, how does voluntary disclosure of clinical trial results, including negative information, affect patients' drug choice and how does this relationship change when the disclosure is supported by a non-profit organization. Based on the results of the survey conducted with 44 UPF undergraduate and graduate students, this study concludes that if a reliable third party, such as World Health Organization, communicates the importance of disclosure of clinical trials well enough, then consumers' drug preferences are affected positively from voluntary clinical trial disclosure. Hence, consumers should be able to reward financially the pharmaceuticals who voluntarily register their clinical trials and disclose results unselectively. This study should be particularly relevant for pharmaceuticals who still do not have a policy at the organization level to register all their clinical trials through the Registry Platform, and for those that hesitate to communicate negative clinical trial results.

a) Introduction

A clinical trial is defined as "any research project that prospectively assigns human subjects to intervention and concurrent comparison/control groups to study the cause-and-effect relationship between a medical intervention and a health outcome" (ICMJE 2007). Medical interventions include any intervention used to modify a health outcome including drugs, surgical procedures, devices, behavioral treatments, and the like[16]. Clinical trials are the most important source of efficacy and safety in health interventions.

Two stages are necessary for the full transparency of clinical trials: (a) registering the trial data before the recruitment of the first participant, and (b) disclosing all results as the trial was conducted. Most clinical trial data and results are not legally required to be published and accessible to third parties[17]. Hence, a voluntary registry and disclosure of results by pharmaceuticals remains the only way to attain transparency. Yet, many pharmaceuticals hesitate to do so. They are not sure they will benefit from such a policy, especially if disclosing unsuccessful trials or disclosing all the negative information about a drug would have a negative impact.

This study looks at how patients' drug preference is affected by the voluntary registry and disclosure of clinical trial results by pharmaceuticals, including negative information. What the effect of full transparency of clinical trials, as well as the barriers to achieve it, is questioned. It posits that non-profit organizations can create a context where pharmaceuticals can transparently discuss their clinical trials and benefit by doing do so. To study these topics, a survey was conducted among

[16] For the phases of the clinical development of a drug, please see Appendix 1(Study D.2.).
[17] Currently, Food and Drug Administration (FDA) releases only a summary of approval even after a New Drug Application is approved. The drug manufacturer generally drafts the summary. When a pharmaceutical applies for a "Supplemental New Drug Application" seeking an approval for a new use of a drug that is already in the market is turned down; clinical trial data revealing hazards of the drug are not made public (Angell 2004).

44 UPF undergraduate and graduate students. It is concluded that pharmaceuticals can benefit from voluntary registry and disclosure of clinical trial results, positive and negative, particularly when it is done in a context organized by a credible non-profit party such as the World Health Organization.

b) Registry of Clinical Trials and Disclosure of Clinical Trial Results

b.1. Current Regulations

Current regulations largely recommend registration, while there are some new policies that require it. These policies differ in terms of the required disclosure items and their scope. There are a few specific legislations on trials such as the FDA's regulation for trials on serious and life threatening diseases. Another example is Maine legislation, currently under consideration, which requires registration of prescription drugs in the State of Maine (Deborah et al. 2007). However, even though, when the disclosure is seen as a requirement, the lack of enforcement and punishment mechanisms leaves the issue to exist only by voluntary participation of the stakeholders. There are still many ongoing and completed trials that remain unregistered or inadequately registered (Manheimer & Anderson 2002). On the other hand, the increase in the number of registrations in the last 5 years, as well as their quality, is recognized as remarkable (Drazen & Zarin 2007)[18]. This trend shows that voluntary registry might be promising for full transparency providing it is combined with voluntary disclosure of results.

In April 2004, one such promising policy to promote full transparency was initiated by the World Health Organization (WHO). WHO published a minimum set of 20 items that need to be disclosed for registry of each clinical trial and initiated the

[18] The list of major policies regarding disclosure can be found at Deborah et al. 2007.

Registry Platform (World Health Organization, 2006)[19]. The Registry Platform is a network that aims to establish a global uniform standard for registration of clinical trials by gathering all trial registry platforms under the same network. It requires that each registration includes information on minimum of 20 items and assigns each trial a unique ID number, which makes each clinical trial traceable globally. Of the 20 items required, the last two items are dedicated to the results of the trial. Hence, we need to acknowledge that the Registry Platform is an effort that tries to combine the registration and disclosure of results. Even though currently more registration focused, in the future it might become a voluntary database that promotes full transparency through also more detailed items on the results.

The platform got support of the existing registry groups including www.clinicaltrials.gov by the U.S. National Institute of Health, and the Meta Register of Clinical Trials by the Current Science Group in the UK, (www.controlled-trials.com), the World Association of Medical Editors (WAME), and www.latinrec.org in Latin America hosted by the International Clinical Epidemiological Network (INCLEN)[20].

In September 2004, the greatest support for WHO came from the ICMJE. ICMJE stated that clinical trials must be listed in a public registry to be considered for publication in its member journals. The ICMJE also specifically stated its support for the standard minimum 20 items suggestion by WHO as registration by itself does not mean disclosure of results (De Angelis et al. 2004)[21]. This had the greatest impact on the registration issue. The average number of the registrations per week

[19]For the list of the 20 items and their explanation, please see (http://www.who.int/ictrp/data_set/en/).

[20] For the list of the registers that are member of the WHO-Registry Platform, please see Appendix 2 (Study D.2.).

[21] For the list of the registries that are accepted by the ICMJE for publication, please see Appendix 3 (Study D.2.).

to the largest public registry, clinicaltials.gov, increased from 30 to 220 when ICMJE started to apply the public registry requirement on its applications for publications (Zarin et al. 2005).

b.2. Effects of Full Transparency (Registry and Disclosure of Results)

Harms of keeping clinical trial data proprietary to the sponsor of the trial include (a) suppressing negative information (adverse effects), (b) not publishing unfavorable results (selective publishing) and hence un-optimal decision making on treatments, and (c) inefficient resource allocation (Palacios 2007; Garber 2001). Stakeholders of clinical trial registry and results disclosure include pharmaceuticals, academia, research institutions, medical professionals, patients, clinical trial participants (patients and healthy volunteers), medical journals, non-governmental organizations, medicine law practitioners, and governments.

Foreseeable positive effects of clinical trial transparency can be to:

- Prevent selective publication of positive clinical data and suppression of negative data regarding efficacy and safety.
- Restore public trust, which is damaged by scandals.
- Provide objective information on ongoing/completed/published clinical trials, which is essential for deciding to accept a treatment/ or participate in a clinical trial.
- Limit the possibility of exploitation in developing world countries, which is crucial to prevent abuse.
- Provide support for National Regulatory Authorities by external research agencies.
- Provide equity in healthcare by setting standards and norms in medical research.

- Ensure ethics for trial participants, who expect that their contributions to medical knowledge will be used to improve healthcare for everyone.
- Enhance efficient use of resources by reducing duplication of work through greater awareness of trials and results, and inequitable funding of research; hence, faster progress in human medicine.

b.3. Barriers to Disclosure

Even though it has many anticipated benefits, there are also barriers to achieving disclosure of clinical trial data. In 2003, challenges are summarized by Dickersin and Rennie as (a) industry resistance, (b) lack of funding, (c) lack of mechanisms of enforcement, (d) lack of awareness, (e) absence of universal criteria of registration, (f) differing interests of stakeholders, and (g) different stages of development at clinical trials, especially in developing countries. However, recent reviews of the issue highlight significant achievements in overcoming these barriers, especially in the last years (Deborah et al. 2007; Godlee 2006).

The strongest argument against clinical trial disclosure is the possibility of violation of intellectual property rights, which might lead to competitors gaining easier, deeper, and earlier insight on competitor activity (Godlee 2006). This argument is especially sensitive, for the registration of clinical trials before they are completed. On the other hand, on-going trials registry is very valuable, especially for patients who are out of treatment options in the market. We see that strong pressure from the industry on the timing of disclosure has been weakened by TGN1412, which is the name of an immunomodulatory drug to treat leukemia. TGN1412 was withdrawn from development based on the hospitalization of all Phase 1 clinical trial participants (BBC 2006). It clearly showed that early phase trials carry relevant information for all stakeholders. Registration should take place before the recruitment of the first subject. Such cases also like Vioxx, SSRI, and Poehlman led to two recent movements to improve the situation by the World Health

Organization and by the International Committee of Medical Journal Editors (ICMJE).

c) Role of Non-profit Organizations

In creating an awareness among the decision makers of drug consumption, (patients, pharmacists, doctors, governments), non-profit organizations play a crucial role. Non-profit organizations might create a consciousness on the issue, which would challenge the pharmaceuticals to be transparent. They have the power to create motivations for the pharmaceuticals to conduct clinical trials in a transparent manner and benefit from doing so. This argument is evident in the example of how the WHO's Registry Platform made a contribution to the discussion when it is supported by the ICMJE creating a very important motivation to the pharmaceuticals and clinical trial conductors; publication.

Inspired by this example, this paper will look at how patients' drug preferences were affected by the full transparency of clinical trials when they include negative information about a particular pharmaceutical product in the existence and absence of a non-profit organization context. The effect of negative information disclosure, in the form of additional adverse effects, is analyzed regarding a clinical trial of a drug in a context where there is a similar drug that doesn't disclose negative items. We find this setting realistic as in real life patients have several medicines to choose from for the same treatment.

The non-profit organization that was chosen in this study is the World Health Organization (WHO) for two reasons. First, WHO is the organization that has the highest recognition by general public globally in the Health Sector. Secondly, WHO has current initiatives to improve global health status by promoting transparency of the pharmaceutical company trials. While looking at the phenomenon of disclosing negative information, including the current initiative of WHO in the scenario,

creates relevancy of the current policy decisions of the pharmaceuticals to follow this initiative.

d) Research Questions & Hypotheses

Main Questions:

- When choosing among drugs that have similar efficacy and safety, how does registry and disclosure of clinical trial data, including negative information in the form of adverse effects, affect patient's drug choice?
- Does the effect change if the disclosure is done through a platform organized by a third party (WHO)?

Secondary Questions:

- Are people aware of the current legal clinical trial regulations?
- What are people's attitudes towards clinical trial registry and results disclosure? Does this change with the WHO statement?

Given the literature review discussed above, we answer these research questions with the following hypotheses.

- Disclosure of additional adverse effect, negative information, might decrease preference for that drug in a context where there are similar alternative drugs that don't disclose their clinical trial results.
- If people become aware of the benefits of the clinical trial registry and disclosure of results by a credible third party such as WHO/Registry Platform Network, they would choose drugs that disclose their clinical trial data, hence positively evaluate them, even though what was disclosed might be negative.
- People are not aware of the current legal clinical trial regulations.
- People are in favor of clinical trial disclosure and their attitude gets stronger with the presence of the WHO statement.

e) Methodology

To test these hypotheses, a survey was conducted with 44 undergraduate and graduate economics students at the Universitat Pompeu Fabra.

Subjects were randomly assigned to a control group (23 subjects) and an experiment group (21 subjects). Both groups were given exactly the same instructions found below, except the statement by the World Health Organization discussing the importance of clinical trial disclosure. The WHO statement was only provided to the subjects in the experiment group as additional information in the Antibiotic X's prospectus before additional side effects[22].

Instructions

"Suppose you notice that you are losing your hearing capacity. You go to the doctor and he/she diagnoses an infectious disease that, if left untreated, could cause a total hearing loss, but which can be easily cured with a particular antibiotic. Since it sounds serious, you ask another doctor for a second opinion. His/her diagnosis is the same, but he/she recommends a different antibiotic, which, according to him/her, will also easily cure the illness. Before making up your mind, you decide to read the prospectus of the two alternative antibiotics ("Antibiotic X" and "Antibiotic Y"). In both cases, despite having a different formulation, the efficacy (i.e., healing effect) and cost are substantially similar. Moreover, you observe that the prospectuses of both drugs state the same following adverse effects with the same frequency: Diarrhea, Nausea, Skin Rash, Urticaria (Difficulty or discomfort in passing urine), Dizziness, Thrush (a yeast infection of the mouth, vagina, or skin folds), Increase Sensitivity to the Sun and Yellow staining of the teeth.

[22] For the complete instructions of this study, please see Appendix 4 (Study D.2.). For the pilot study, which led to the design of this study, please refer to Appendix 8 (Study D.2.).

You observe that at the end of the prospectus of Antibiotic X, there is the following additional statement;

The clinical trial results are publicly available. In double blind, placebo-controlled studies, other adverse effects reported with an incidence of equal or less than 1 in 10000 people in Antibiotic X-treated patients include: Inflammation / Kidney Damage / Vomiting / Insomnia.

Given only this information, then participants in the control group were asked to state which one of the mentioned two drugs they would choose to use. Before making the choice between Antibiotic A and B, subjects in the experiment group were also given the following statement of the WHO.

World Health Organization (WHO) states that clinical trials are one of the most important sources of scientific evidence on the safety and effectiveness of health interventions. Access to information about ongoing, completed and published clinical trials is essential for appropriate decision making. Researchers, research-funders, policy-makers, medical practitioners, patients, and the general public need such information, to help guide research or to make treatment decisions. To achieve so, WHO invites the pharmaceutical and research institutions to join to "the Registry Platform" it initiated. The Registry Platform's main objectives are to ensure that all clinical trials are registered and thus publicly declared and identifiable; so as to ensure that for all trials, a minimum set of results will be reported and made publicly available.

At the end of choosing a drug, a questionnaire was given to the subjects of both control and experiment groups. Participants were asked for their (a) preference of Drug X with disclosure, (b) awareness about current legal clinical trial disclosure

regulations, (c) attitude towards clinical trial disclosure, and (d) future preference for drugs with clinical trial disclosure.

f) Results

Table D.5. Choice of Antibiotic X vs. Y

	Antibiotic X	Antibiotic Y	Total
without WHO	12 (52.2%)	11 (47.8%)	23
with WHO	18 (85.7%)	3 (14.3%)	21

In the table above, we observe the number of subjects who chose the drug with disclosure of negative items, Antibiotic X, increases with the inclusion of the WHO statement from 52.2% (12/23) to 85.7% (18/21). The regression analysis reveals that the WHO statement has a significant effect on the drug choice. We observe that having read the WHO statement increases a patient's probability of choosing the drug with disclosure by 33.5%.[23]

Scales of the Survey[24]

Preference of Drug X (with disclosure): Preference for Antibiotic X increases from 2.99 to 3.76 with the WHO statement. Based on the t-test and F-test, we see that the increase on the preference of X is statistically significant with a p value of 0.02 at 95% level of confidence[25]. Hence, the WHO statement affects positively the preference of more transparent drug. (Cronbach's alpha for that scale is 0.847).

Awareness & Attitude on Clinical Trial Disclosure Regulations: We observe that level of awareness on clinical trials is quite low, 2.14, on average whereas subjects support disclosure with 4.60 level of attitude. We observe that WHO

[23] For the logit regression output, please see Appendix 5 (Study D.2.).
[24] All the scales discussed below are measured by the 5 points Likert scale. For the items of each scale, please see Appendix 6 (Study D.2.).
[25] For the complete output of t-test & F-test, please see Appendix 7 (Study D.2.).

statement doesn't change significantly people's attitudes towards clinical trial disclosure and they have a strong attitude also without it (Cronbach's alpha for awareness scale is 0.863 and for attitude scale is 0.737).

Future Preference for Drugs with Disclosure: Personal preference increases from 3.77 to 4.19 with the WHO statement. However, since the reliability measure is very low on this scale, 0.494, this scale cannot be lead to a conclusion.

g) Contribution to the Literature & Relevancy

This study contributes to the discussion about how to promote voluntary registry and clinical trial disclosure. The policy makers who might benefit from this study are pharmaceuticals and non-profit organizations. It is specifically relevant for pharmaceuticals that are facing the dilemma of whether or not to disclose their clinical trial information, or do so in a transparent manner. This study shows that, even without the support of a non-profit organization, half of the subjects prefer transparency and interpret it as more reliable. They reward the company by preferring its product. However, what is more relevant and beneficial for pharmaceuticals is disclosing clinical trial information through a non-profit organization context such as the WHO's Registry Platform. In that case, we see that 85.7% of subjects choose the transparent product, even though it communicates additional adverse effects.

This study concludes that pharmaceuticals can voluntarily disclose positive and negative clinical trial information about their product through a third party context, and at the same time benefit from that action with a positive differentiation. In this context, communication of negative information does not hurt the pharmaceuticals, yet rewards them. Such transparency is a prerequisite for harm reduction in the pharmaceutical industry. By suppressing negative information, it is not possible to

achieve harm reduction. Pharmaceuticals that disclose voluntarily have a chance to benefit from it with a positive image, if the patients and physicians act conscientiously. Doing so decreases scandals and lawsuit costs pharmaceuticals face when the negative information is not communicated, but found out by other parties.

Lack of registry and disclosure of clinical trial results has a negative influence on people's health intervention choice. If this effect can be reversed by a credible third party, such as WHO, then the power of such a non-profit/public institution could be used to create an incentive for information disclosure. As the national and international agencies still do not provide enforcement mechanisms and costly consequences, disclosure of clinical trials seem to stay on voluntary basis at least in the short-run. However in the mean time, institutions that try to conserve the common welfare might obtain the same transparency by simply communicating this information to the public.

h) Limitations of the Study

Limitations of the study are its small sample size and the fact that they are all university students. In addition the undergraduate subjects that did the survey were students of a business course on Rationality and Ethics, which might lead to a bias towards more ethical behavior in their drug choice.

i) Further Research

Further related research can identify the effect of additional negative information that is disclosed as part of harm reduction policy on real patients. Doing further studies with a larger number of patients should give more reliable results.

Another study that can be done is to look at the physicians' perceptions on the disclosure of negative information about a drug as part of the manufacturer's effort to reduce the harm. Taking into account that people comply with their doctors as shown in our pilot study (See Appendix 8), this study would be very relevant for real drug consumption.

Possible evaluation of other ways to reduce the harm of the pharmaceutical industry should be welcomed. The list of possible harmful actions of the industry provided previously should be useful discovering such means.

Another research topic could be to look at the people's perception of harm reduction in other industries as well as at the pharmaceutical context.

Additionally, this study highlights the role and power of non-profit organizations and their initiations such as WHO and it's Registry Platform Network. Aside from the political and legal struggles that take place constantly about more ethical ways of doing business, non-profit organizations might achieve the same with meaningful programs that can benefit both market players and consumers. Further research can be done to evaluate non-profit programs on a certain issue to identify what they can achieve further.

j) Conclusion

This study concludes that pharmaceuticals can benefit from registering and disclosing their clinical trial results and avoid any harm from keeping such information proprietary. One of the ways identified is the support of a non-profit organization. If a reliable third party communicates the importance of full transparency of clinical trials and harm reduction well enough, then consumers

should be able to reward financially the pharmaceuticals that are trying to minimize harm.

This study should be particularly relevant for pharmaceuticals that still do not have a policy at the organizational level to register all their clinical trials through the Registry Platform, or disclose negative clinical trial results. The results of this paper conclude that consumers' drug preferences would be affected positively from disclosure even though they might contain negative information about the product. When pharmaceuticals voluntarily register their clinical trials and disclose results, they can communicate additional side effects about a drug and discuss how full transparency helps for the common good.

k) References

Angell, M.D. 2004, *The Truth About the Drug Companies*, Random House, NewYork.

BBC. 2006, *Six taken ill after drug trials*, [online] Available at:<http://news.bbc.co.uk/1/hi/england/london/4807042.stm> [Accessed 3 May 2007], Published 15 March 2006.

De Angelis, C.D., Drazen, J.M., Frizelle, F.A., Haug, C., Hoey, J., Horton, R. et al. 2004, "Clinical Trial Registration: A Statement from the International Committee of Medical Journal Editors (editorial)", *New England Journal of Medicine*, vol. 351, pp. 1250-1251.

Deborah, A.Z., Ide, N.C., Tse, T., Harlan, W.R., West, J.C. & Lindberg, D.A.B. 2007, "Issues in the Registration of Clinical Trials", *Journal of the American Medical Association*, vol. 297, no. 19, pp. 2112-2119.

Dickersin, K. & Rennie, D. 2003, "Registering Clinical Trials", *Journal of the American Medical Association*, vol. 290, no. 4, pp. 516-523.

Drazen J.M. & Zarin D.A. 2007, "Salvation by registration", *New England Journal of Medicine*, vol. 356, pp. 184-185.

Garber, A.M. 2001, "Evidence-based coverage policy", *Health Affairs*, (Millwood), vol. 20, pp. 62-82.

Godlee, F. 2006, "An international standard for disclosure of clinical trial information", *British Medical Journal*, vol. 332, pp. 1107-1108.

ICMJE. 2007, "Clinical Trial Registration: Looking Back and Moving Ahead, International Committee of Medical Journal Editors", *New England Journal of Medicine,* vol. 356, pp. 2734-2736.

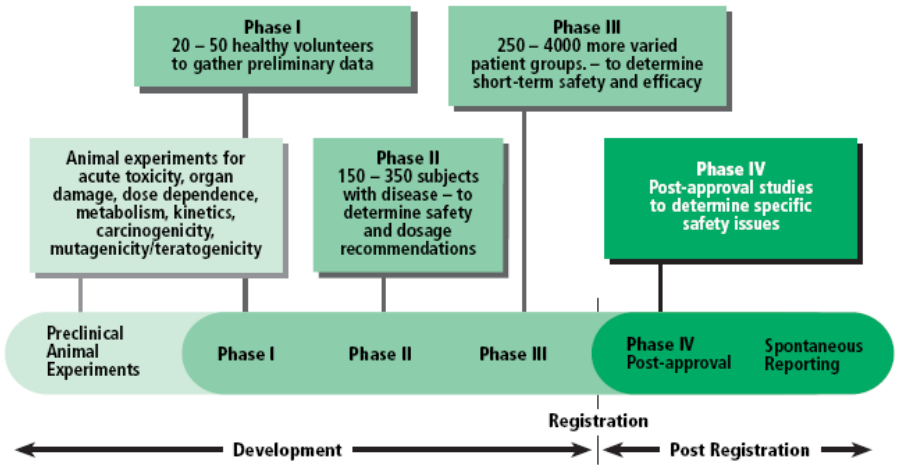
Manheimer, E. & Anderson, D. 2002, "Survey of public information about ongoing clinical trials funded by industry: evaluation of completeness and accessibility", *British Medical Journal*, vol. 325, pp. 528-531.

World Health Organization. 2006, *The World health report: Working together for health*, [online] Available at:<http://www.who.int/whr/en/> [Accessed 7 January 2007].

Zarin, D.A., Tse, T. & Ide, N.C. 2005, "Trial registration at ClinicalTrials.gov between May and October 2005", *New England Journal of Medicine*, vol. 353, pp. 2779-2787.

l) Appendix to Preliminary Study D.2.

Appendix 1 (Study D.2.) Clinical Development of Medicines



Source: WHO Policy Perspectives on Medicine 9) Pharmacovigilancia: ensuring the safe use of medicines; October 2004; Figure 1) Clinical Development of Medicines

Appendix 2 (Study D.2.) List of registers of the WHO-Registry Platform Network

Primary Registers

The following registers meet the requirements of a Primary Register and contribute data directly to the WHO Search Portal.

- Australian Clinical Trials Registry
- ClinicalTrials.gov
- International Standard Randomised Controlled Trial Number Register (ISRCTN)
-

Partner Registers

The following registers contribute data to the WHO Search Portal **but only** via one of the above Primary Registers.

- ArQule, Inc (partnered with ClinicalTrials.gov)
- Dutch Trial Register (partnered with ISRCTN)
- Eli Lilly (partnered with ClinicalTrials.gov)
- Mitsubishi Pharma Corporation (partnered with ClinicalTrials.gov)
- Physician Data Query (partnered with ClinicalTrials.gov)
-

Potential Contributing Registers

The following registers do not currently contribute data to the WHO Search Portal. The Registry Platform Secretariat are in the process of ascertaining whether or not each register meets the requirements necessary to be a Contributing Register.

- Centre for Clinical Trials, Chinese University of Hong Kong
- Chinese Clinical Trial Register (ChiCTR)
- Clinical Trial Database of the University Hospital Freiburg
- Clinical Trials Registry - India (in development: not yet open to registrants)

- German Somatic Gene Transfer Clinical Trial Database
- HIV/AIDS, Tuberculosis and Malaria Clinical Trial Registry (ATM Registry) (in development: not yet open to registrants)
- Latin American Clinical Trials Register (LatinRec)
- National Swedish Competence Centre for Musculoskeletal Disorders (in development: not yet open to trial registrants)
- South African National Clinical Trial Register (SANCTR)
- University Hospital Medical Information Network (UMIN)

Appendix 3 (Study D.2.) Registries accepted by the ICMJE (Deborah et al., 2007)

ClinicalTrials.gov (http://clinicaltrials.gov)

Auspices / Funding: US Federal Government (National Library of Medicine at National Institutes of Health)

Number of Trials (as of 1717/2007): 36657

Is Recruitment Status Recorded and Updated? Yes

Can Users Search for "Open" Trials: Yes

ISRCTN (http://isrctn.org)

(ISRCTN: International Standard Randomized Controlled Trial Number)

Auspices / Funding: Non-profit entity administered by Current Controlled Trials LTD fees collected from registrants

Number of Trials (as of 1717/2007): 5281

Is Recruitment Status Recorded and Updated? No (anticipated closure date is recorded)

Can Users Search for "Open" Trials: Not Currently

Australian Clinical Trial Registry (http://www.actr.org.au)

Auspices / Funding: Grant from Australian National Health and Medical Research Council (University of Sydney)

Number of Trials (as of 1717/2007): 1350

Is Recruitment Status Recorded and Updated? Recorded (plans to allow for updates by mid 2007)

Can Users Search for "Open" Trials: No (planned by mid 2007)

Netherlands Trial Registry (htpp://www.trialregistry.nl)

Auspices / Funding: Grant from Dutch Ministry of Health (Dutch Cochrane Center)

Number of Trials (as of 1717/2007): 797

Is Recruitment Status Recorded and Updated? Yes

Can Users Search for "Open" Trials: No

UMIN Clinical Trials Registry (http://www.umin.ac.jp/ctr/)

(UMIN: Japanese Ministry of Education)

Auspices / Funding: Grant from Japanese Ministry of Education

Number of Trials (as of 1717/2007): 534

Is Recruitment Status Recorded and Updated? Yes

Can Users Search for "Open" Trials: Yes

Appendix 4 (Study D.2.) Instructions

Please note that the explanations written with italic font weren't provided to participants.

Note: This questionnaire is anonymous: The participants **<u>do not</u>** need to write their names.

Answers to the questions shouldn't be changed after having passed to the next question. Thank you for your participation.

Suppose you notice that you are losing your hearing capacity. You go to the doctor and he/she diagnoses an infectious disease that, if left untreated, could cause a total hearing loss, but which can be easily cured with a particular antibiotic. Since it sounds serious, you ask another doctor for a second opinion. His/her diagnosis is the same, but he/she recommends a different antibiotic, which, according to him/her, will also easily cure the illness. Before making up your mind, you decide to read the prospectus of the two alternative antibiotics ("Antibiotic X" and "Antibiotic Y"). In both cases, despite having a different formulation, the efficacy (i.e., healing effect) and cost are substantially similar. Moreover, you observe that the prospectuses of both drugs state the same following adverse effects with the same frequency:

Diarrhea Nausea Skin Rash Urticaria (Difficulty or discomfort in passing urine) Dizziness Thrush (a yeast infection of the mouth, vagina, or skin folds) Increase Sensitivity to the Sun Yellow staining of the teeth

You observe that at the end of the prospectus of Antibiotic X, there is the following additional statement;

The statement given only to the Control Group:

The clinical trial results are publicly available. In double-blind, placebo-controlled studies, the other adverse effects reported with an incidence of equal or less than 1 in 10000 people in Antibiotic X-treated patients include: Inflammation / Kidney Damage / Vomiting / Insomnia

The statement given only to the Treatment Group:

The clinical trial results are publicly available in line with World Health Organization's transparency statement on clinical trials. (For the statement, please see below.) In double blind, placebo-controlled studies, the other adverse effects reported with an incidence of equal or less than 1 in 10000 people in Antibiotic X-treated patients include:

Inflammation / Kidney Damage / Vomiting / Insomnia

World Health Organization

World Health Organization (WHO) states that clinical trials are one of the most important sources of scientific evidence on the safety and effectiveness of health interventions. Access to information about ongoing, completed and published clinical trials is essential for appropriate decision making. Researchers, research-funders, policy-makers, medical practitioners, patients, and the general public need such information, to help guide research or to make treatment decisions. To achieve so, WHO invites the pharmaceutical and research institutions to join to "the Registry Platform" it initiated. The Registry Platform's main objectives are to ensure that all clinical trials are registered and thus publicly declared and identifiable, so as to ensure that for all trials, a minimum set of results will be reported and made publicly available.

Once both control and treatment groups read the relevant statement provided to them they answer the following items.

Please state which one of the two drugs you would choose:

Antibiotic X

Antibiotic Y

Please explain your answer:

Please state how much you agree to the following statements.

Participants answered the following statements on a 5 points Likert scale from 1(Strongly disagree) to 5(Strongly Agree).

1) Both drugs have the same efficacy.
2) Both drugs are equally safe.
3) I prefer Antibiotic X to Antibiotic Y.
4) Antibiotic Y is safer than Antibiotic X.
5) Antibiotic X has more adverse effects than Antibiotic Y.

Appendix 5 (Study D.2.) Logit regression for WHO statement's effect on the choice of the drug

In the following regression, y refers to the drug choice, y=0 if drug Y is chosen & y=1 if drug X (with disclosure) is chosen. X refers to the having read the statement by World Health Organization before making the drug choice; x=0 if not having read; x=1 if having read. This regression tells us that the WHO statement has significant effect on the drug choice. It says having read the WHO statement increases a patient's probability of choosing the drug with disclosure by 33.5%.

```
logit y x
Iteration 0:   log likelihood =  -27.52162
Iteration 1:   log likelihood = -24.610837
Iteration 2:   log likelihood = -24.533403
Iteration 3:   log likelihood = -24.533082

Logistic regression                 Number of obs = 44
                                    LR chi2(1) = 5.98
                                    Prob > chi2 = 0.0145
Log likelihood = -24.533082         Pseudo R2 = 0.1086
------------------------------------------------------------------------------
           y |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
           x |   1.704748   .7504044     2.27   0.023     .2339824    3.175514
       _cons |   .0870114   .4174236     0.21   0.835    -.7311238    .9051465
------------------------------------------------------------------------------
. mfx compute
Marginal effects after logit
      y  = Pr(y) (predict)
         =  .71108124
------------------------------------------------------------------------------
variable |      dy/dx      Std. Err.     z    P>|z|  [    95% C.I.   ]     X
---------+--------------------------------------------------------------------
       x*|   .3354037      .12915    2.60   0.009   .082276  .588532   .477273
------------------------------------------------------------------------------
(*) dy/dx is for discrete change of dummy variable from 0 to 1
```

Appendix 6 (Study D.2.) Scale Items

Preference of Antibiotic X

After being asked to which Antibiotic they would choose, the subjects were asked the following items to measure drug preference on a 5 point Likert scale from 1 (Strongly Disagree) to 5(Strongly Agree). After scoring of items 2 and 3 is reversed, 1 indicates preference for Y and 5 indicates preference for X. In other words, 1 indicates preference for drugs with non-disclosure of negative items and 5 indicates preference for drugs with disclosure of negative items.

1. I prefer Antibiotic X to Antibiotic Y.
2. Antibiotic Y is safer than Antibiotic X.
3. Antibiotic X has more adverse effects than Antibiotic Y.

Awareness on current Clinical Trial Disclosure Regulations (Legally)

Scoring of all items is reversed based on the following scale. After the reversing "1" indicates low awareness and "5" indicates high awareness.

<1 (wrong for sure), 2 (probably wrong), 3 (I don't know), 4 (probably right), 5 (right for sure)>

1. Pharmaceutical companies are legally obliged to publish positive results of their clinical trials.
2. Pharmaceutical companies are legally obliged to publish negative results of their clinical trials.
3. Pharmaceutical companies are legally obliged to make the dataset of their clinical trials accessible to third parties.
4. Approval of a new drug, whenever an alternative drug exists, requires a comparison test with the already existing drug in the market.
5. If a new drug, during its clinical trials before entering the market, is found to be inferior to an existing drug in the market, it will not be approved.

Attitude towards Clinical Trial Disclosure Legal Requirements

"1" indicates against of clinical trial disclosure and "5" indicates in favor of clinical trial disclosure.

1. Pharmaceutical companies should publish negative results of their clinical trials.
2. Pharmaceutical companies should make the dataset of their clinical trials accessible to third parties / (publicly available).
3. Pharmaceutical companies should make the result of their clinical trials accessible to third parties / (publicly available).
4. Drugs that don't disclose their clinical trial information might be hiding relevant information.

Future Preference of Drugs with Disclosure

1. I would like to know all adverse effects of a drug before I use it.
2. I prefer to buy a drug that discloses its clinical trial information even though it contains negative information.
3. I would try to buy a drug that discloses its clinical trial results in future.

Appendix 7 (Study D.2.) Results of t-test & F-test

.
oneway prf who, tabulate

Summary of prf

who	Mean	Std. Dev.	Freq.
0	2.9855072	1.2612254	23
1	3.7619048	.80376101	21
Total	3.3560606	1.1261462	44

Analysis of Variance

Source	SS	df	MS	F	Prob > F
Between groups	6.61702507	1	6.61702507	5.80	0.0205
Within groups	47.915804	42	1.14085248		
Total	54.5328291	43	1.26820533		

Bartlett's test for equal variances: chi2(1) = 3.9663 Prob>chi2 = 0.046

From the Anova analysis, we see that the assumption of the equal variances is plausible hence I do t test with unequal variance option.

ttest prf, by(who)unequal
Two-sample t test with unequal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
0	23	2.985507	.2629837	1.261225	2.440112	3.530902
1	21	3.761905	.175395	.803761	3.396037	4.127772
combined	44	3.356061	.1697729	1.126146	3.013681	3.69844
diff		-.7763976	.3161073		-1.416482	-.1363135

diff = mean(0) - mean(1) t = -2.4561
Ho: diff = 0 Satterthwaite's degrees of freedom = 37.716

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.0094 Pr(|T| > |t|) = 0.0188 Pr(T > t) = 0.9906

Also, if we use the XY variable as the dependent variable, we still conclude that the difference of means is statistically significant.

```
.
ttest xy, by(who)unequal
Two-sample t test with unequal variances
------------------------------------------------------------------------------
Group |    Obs    Mean       Std. Err.   Std. Dev.   [95% Conf. Interval]
---------+--------------------------------------------------------------------
      0 |     23   .5217391   .1064996   .5107539   .3008726   .7426057
      1 |     21   .8571429   .0782461   .3585686   .6939244   1.020361
---------+--------------------------------------------------------------------
combined| 44   .6818182   .0710293   .4711553   .5385739   .8250625
---------+--------------------------------------------------------------------
diff      |          -.3354037   .1321537                  -.6026016   -.0682059
------------------------------------------------------------------------------
diff = mean(0) - mean(1)                                      t =  -2.5380
Ho: diff = 0                 Satterthwaite's degrees of freedom =  39.5007
   Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.0076         Pr(|T| > |t|) = 0.0152          Pr(T > t) = 0.9924
```

In the below ANOVA analysis, we observe that attitude doesn't change with the WHO statement.

```
oneway attitude who, tabulate
           |      Summary of attitude
       who |       Mean      Std. Dev.       Freq.
-----------+------------------------------------
         0 |   4.2826087   .42281756         23
         1 |   4.3761905   .42297136         21
-----------+------------------------------------
     Total |   4.3272727   .42061065         44

Analysis of Variance
Source                 SS                 df      MS             F        Prob > F
------------------------------------------------------------------------------
Between groups      .096134199    1     .096134199      0.54     0.4675
Within groups      7.51113862     42    .178836634
------------------------------------------------------------------------------
Total                 7.60727282     43   .176913321
Bartlett's test for equal variances:  chi2(1) =   0.0000  Prob>chi2 = 0.999
```

Appendix 8 (Study D.2.) Summary of the Pilot Study

Research Question

Main Questions:

- When choosing among drugs that have similar characteristics, how does disclosure of clinical trial data including additional negative information affect patient's drug choice?
- Does the effect above change if the disclosure is done through a platform organized by a third party (WHO)?

Secondary Questions:

- Do people comply with their doctor's advice on which drug to take even though they choose a different drug in the absence doctor's advice?

Hypothesis

- Disclosure of additional adverse effect, negative information, might decrease preference for that drug in a context where there are similar alternative drugs that don't disclose their clinical trial data.
- If people become aware of the benefits of the clinical trial disclosure by a credible third party such as WHO/Registry Platform Network, they would choose drugs that disclose their clinical trial data, hence positively evaluate them, even though what is disclosed is negative.
- People follow their doctor's advice when it contradicts with their own choice.

Methodology

54 undergraduate economics students at the Universitat Pompeu Fabra participated in this experiment. They were asked to choose one of the 2 alternative drugs (A, B) in the hypothetical situation that they have Type II (beginning level) diabetes and they need to choose a drug to balance their insulin level. The 2 drug alternatives

had everything in common except clinical trial disclosure. While the subjects were told that the clinical trial information for Drug A was not publicly available, it was available for Drug B and provided the following information:

"In double-blind, placebo-controlled studies, the other adverse effects reported with an incidence of less than 1% in Drug B-treated patients include:

Nervous system–hypertonia, confusion, vertigo, somnolence, gait abnormality and

Gastrointestinal–anorexia and trace blood in stool

Cardiovascular–arrhythmia, migraine, flushing and hypertension

Metabolic-thirst

Skin–rash

Special senses–pain in the eye

Urogenital–dysuria (difficulty in urination)"

The experiment had the control and experiment groups, with and without the statement below on the Registry Platform Network that WHO initiated. In the version without the statement subjects were told that the clinical trial information for Drug B was accessible through manufacturer pharmaceutical's website. In the version with the WHO statement, they were told that the clinical trial information for Drug B was accessible through the Registry Platform. The rest of the instructions were exactly the same for the 2 groups.

World Health Organization (WHO) states that clinical trials are one of the most important sources of scientific evidence on the safety and effectiveness of health interventions. Access to information about ongoing, completed and published clinical trials is essential for appropriate decision making. Researchers, research-funders, policy-makers, medical practitioners, patients, and the general public need such information, to help guide research or to make treatment decisions. To achieve so, WHO invites the pharmaceutical and research institutions to join to "the Registry Platform" it initiated. The Registry Platform's main objectives are to ensure that all clinical trials are registered and thus publicly declared and identifiable, so as to ensure that for all trials, a minimum set of results will be reported and made publicly available.

After having made their choice among 2 alternative drugs and explained it, subjects are told that they decide to go to a doctor for advice and their doctor advices them to take the drug that doesn't disclose its clinical trial information, Drug A. After that information, they are asked to choose again between the two alternatives.

Results

Pilot 2	Sample	Drug A (no disclosure)	Drug B (disclosure of negative information)
with WHO statement	26	3	23
without WHO statement	28	2	26
Total	54	5 (9.3%)	49 (90.7%)

As seen in the table above, 90.7% of all subjects chose the drug option that disclosed additional negative information. This concludes that people prefer drugs that disclose clinical trial information even though it communicates negative information on the drug. The statement by WHO didn't create any significant increase on the preference of the disclosing party as subjects chose the disclosing

party in its absence. Subjects were asked to explain their decision afterwards they made their choice. The subjects who chose Drug B stated that they found Drug B more transparent and hence more reliable. However, they also mentioned that the stated additional adverse effects weren't quite serious. Hence, it can be concluded that the un-seriousness of additional negative information contributed to their decision-making.

Based on the doctor's advice to choose Drug A, 52 out of 54 subjects, 96.2%, chooses to follow doctor's advice. Framed differently, out of 49 subjects who receive a doctor's advice different their previous choice, 47 subjects, 95.9%, chooses to comply with the doctor's choice.

Limitations of the Study

One limitation of the study was the sample and timing. The study has been done to the students of Rationality and Ethics course during the course lecture. As students were already discussing ethics at the time they were asked to respond to the questions, the response bias might be very high urging them to choose the more ethical, transparent, option[26]. On the other hand, there might be another explanation. The subjects might have chosen the ethical option because the education they got on Ethics. My personal opinion is that both explanations played a role in the subject's response. Even though it limits the relevancy of my study to the general public, it shows that people who get an education on Ethics tend to make more ethical choices afterwards. Another critique of the study is the use of unserious adverse effects as additional negative information at the disclosure. If a pharmaceutical wants to suppress negative data, it is more likely to be serious. The last critique of the study is the usage of diabetics in the scenario. As the subjects

[26] Response Bias is a type of cognitive bias, which can affect the results of a statistical survey if respondents answer questions in the way they think the questionnaire wants them to answer rather than according to their true beliefs (wikipedia).

were on average 20.2 years old, it is very improbable that they have personal experience with diabetics in real world. These critiques are taken into account in the design of the next study.

Contribution to the Literature & Relevancy

As the sample wasn't random, it is not possible to generalize the results. However, it is still relevant for pharmaceuticals showing that people who have strong ethical predispositions would choose a drug that discloses information. Therefore, pharmaceuticals do not need to worry about the effect of disclosing negative information on their ethical consumers by clinical trial registration. On the other hand, as general public doesn't consist of people who value ethics, the result of this study is not applicable for any policy making. However, it might be relevant for educating the physicians. Subjects state that they would follow their doctor's advice on which drug to take, even though it contradicts for their personal choice. This might have the relevancy that if pharmaceuticals organize educational seminars on clinical trial disclosure to physicians, they could positively differentiate themselves by disclosing all clinical trial information including negative items. However, such a proposition requires further research.