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Abstract:

Amid growing calls for transparency and social and environmental responsibility, companies are employing different strategies to improve consumer perceptions of their brands. Some pursue internal initiatives that reduce their negative social or environmental impacts through responsible operations practices (such as paying a living wage to workers or engaging in environmentally sustainable manufacturing). Others pursue external responsibility initiatives (such as philanthropy or cause-related marketing). Through three experiments, conducted in the field and lab, we compare how transparency into these internal and external initiatives affects customer perceptions and sales, and explore the psychological processes linking transparency to sales. The results provide converging evidence that transparency into a company's internal responsibility practices can be at least as motivating of consumer sales as transparency into its external responsibility initiatives, incrementally increasing a consumer's probability of purchase by 13.6% and 45.8% across our two field experiments, conducted in social and environmental domains, respectively. We further investigate the perceptual effects of transparency into internal and external responsibility initiatives and find that the underlying psychological mechanisms linking both types of transparency to consumer purchase intentions are highly consistent. Transparency into internal and external initiatives increases perceived altruism, cause sincerity, corporate ability, trust, favorability, and consumers' beliefs that the company is an attractive employer, which in turn drives sales. Taken together, our results suggest that it may be in the interest of both business and society for managers to prioritize internal responsible operations initiatives, to achieve both top and bottom line benefits, while mitigating social and environmental harms.

[Keywords: sustainable operations, corporate social responsibility, consumer behavior, operational transparency]

1. Introduction

Companies are increasingly expanding their efforts to reduce the negative social and environmental impacts of their operations, and some are beginning to share information about these efforts directly with consumers. For example, in the social responsibility domain, Alta Gracia, an apparel company with production facilities in the Dominican Republic, was the first in the developing world to pay a living wage to its workers (Adler-Milstein and Kline 2017). In addition to the copy traditionally presented on apparel products, Alta Gracia hangtags include information about the company's living wage policy. In the environmental responsibility domain, Nike invested in Dyecoo, a technology firm that developed the first commercially-available waterless textile dyeing machines, which reduce water consumption in textile manufacturing (Porteous and Rammohan 2013). Nike introduced its first products leveraging this process in 2014 (Korosec 2013), and

the marketing materials accompanying them extolled the environmental sustainability of the process, in addition to more traditional product attributes (Amazon 2018).

Two facets of these tableaux are especially interesting with respect to the present research. First, both offer examples of a growing trend in how organizations engage with social and environmental issues: allocating resources away from *philanthropic investments* in the external community in favor of *responsible operations* investments targeting their own internal business practices (McKinsey 2007, Porter and Kramer 2011, Visser 2017). Fueling this trend is evidence showing that engaging in responsible operations practices can arrest social and environmental harms for people and the planet, while increasing the efficiency and productivity of operating processes, and reducing the risk of regulatory infractions, supply disruptions, and brand damage for firms (Caro et al. 2017, Chen and Lee 2017, Kalkanci and Plambeck 2018a,b, Plambeck and Taylor 2016, Williams et al. 2018). Second, both examples demonstrate an appetite among management of these firms to provide consumers a window into these investments in responsible operations. Although a rich marketing literature has explored how investments in a broad array of corporate social responsibility (CSR) initiatives can influence customer perceptions and behaviors in ways that may benefit the firm (Ellen et al. 2006, Sen et al. 2006, Yoon et al. 2006, Du et al. 2011), evidence of the comparative effects of transparency into investments in responsible operations is scant. With little evidence on how transparency into responsible operations comparatively affects consumer attitudes and behaviors, it is not surprising that few companies are moving in this direction. Indeed, a recent survey of supply chain leaders revealed that fewer than 20% were motivated by the sales effects of engaging in responsible operations practices (Lee et al. 2012). Despite the seemingly low interest among practitioners to engage in responsible operations for market differentiation, recent research demonstrates how operational transparency in general, revealing the hidden work that goes on behind the scenes to create value for customers, can enhance consumers' attraction to and engagement with a brand (Buell and Norton 2011; Buell et al. 2016; Mohan et al. 2019), but no prior research has investigated whether transparency into internal and external responsibility initiatives may have differential effects on consumer perceptions and behaviors, which is the objective of this paper.

In service of this question, we use a multi-method approach that combines field and lab experiments. Field experiments enable us to test and confirm external validity, which is particularly important in sustainability research because of the observed gap in consumers' reported purchase intentions in surveys and their actual purchasing behavior (Auger and Devinney 2007); in fact, surveys have shown that 30-70% of consumers say they want to buy greener, healthier, more socially responsible products, but only 1% to 5% actually do (O'Rourke and Ringer 2015 and references therein). Our lab experiment enables us to explore the behavioral mechanisms underlying consumers' purchasing behavior and establish the

robustness of our results over a wide range of conditions (including transparency into different types of responsibility initiatives enacted in various manufacturing locations).

Our field experiments were conducted in collaboration with Alta Gracia (the apparel manufacturer described above), which engages in socially-responsible practices, and Counter Culture Coffee, a coffee-roasting company that engages in environmentally sustainable practices, as well as two retailers through which Alta Gracia and Counter Culture Coffee sell their products. For both experiments, transparency into internal and external responsibility initiatives was randomly manipulated by means of remotely-controlled video kiosks in each retail location, and across the two studies, we analyze point-of-sale data from nearly 80,000 customer transactions. The results reveal that transparency into internal responsible operations initiatives can increase sales at least as much as transparency into external responsibility initiatives, if not more so. Through our lab study, we explore the differential effects of transparency into both types of initiatives on customer perceptions and purchase intentions. Although we document differences in how transparency into internal and external responsibility initiatives affect customer perceptions, we observe consistent mechanisms linking both types of transparency to purchase intentions. In particular, we find that consumers' increased perceptions of the firm's altruism, cause sincerity, corporate ability, and favorability, as well as their elevated trust in the firm, and their belief that it is a more attractive employer, drives increased purchase intentions.

Taken together, these results provide prescriptive insights into how managers should prioritize responsibility activities. To the extent that transparency into responsible operations is indeed as motivating to consumers as transparency into external responsibility activities, our results suggest that it may be in the interest of both business and society for managers to prioritize responsible operations initiatives, to achieve *both* top and bottom line benefits, while mitigating social and environmental harms.

2. Responsibility activities and consumer behavior

By examining how firms can use various social and environmental responsibility initiatives to differentiate themselves in the consumer market, we contribute to growing streams of literature on sustainable operations (e.g., Buell et al., 2019, Kraft et al. 2018, Guo et al. 2016), CSR (Peloza and Shang 2011), and ecolabels (Tully and Winter 2014). Our paper is one of the few to respond to calls for researchers to compare the effects of different responsibility activities on business performance (Peloza and Shang 2011 and references therein). In doing so, we propose a new organizing principle for responsibility activities, i.e., responsibility activities *within* a firm's own operations versus responsibility activities affecting the external community.

Our work is further differentiated from prior studies in these three literatures by its reliance on a multi-method approach that combines field and lab experiments to test the effects of transparency into different types of responsibility initiatives on consumer purchase behavior, and unpack the drivers of the effects we observe. Consequently, our work is one of the few to measure consumers' actual purchase behavior in response to responsibility information, as opposed to solely relying on consumer purchase intentions or attitudes towards a company as the outcome variables. Within the limited body of work on consumer responsible purchase behavior (e.g., Hainmueller et al. 2015, Hiscox and Smyth 2006, Arnot et al. 2006, Prasad et al. 2004, Anderson and Hansen 2004), our work is unique in (1) manipulating and comparing transparency contents (i.e., internal responsible operations initiatives, external responsibility initiatives, or generic marketing information) to specifically identify the effects of responsibility messages, and (2) considering how responsibility information influences consumer purchase behavior across multiple product types (apparel, coffee) and responsibility domains (social, environmental).

Prior research has shown how consumers' attributions about a firm's motivation for pursuing responsibility activities influence their attitudes towards the firm (Aktar 2011, Campbell and Kirmani 2000, Ellen et al. 2000, Webb and Mohr 1998). At a high level, this work has shown that if the firm's motivation is attributed to a desire to benefit society (as opposed to improving reputation and/or profits), it will be viewed more favorably by consumers. As such, it is not clear *ex ante* whether and how consumer perceptions and behaviors may differ when they are exposed to transparency into internal and external responsibility practices.

On the one hand, when the firm reveals its responsible operations practices, consumers may be more likely to tie its intentions to an intrinsic motivation to do good. There are two reasons for this. First, when disclosing its sustainable operations practices, the firm often reveals the baseline negative social and/or environmental impacts of its processes. Disclosures of this type can increase consumer perceptions of honesty, since in expectation, negative revelations have no direct positive consequences (Aktar 2011). Relatedly, to the extent the transparency is perceived to be voluntary and intimate, it is likely to engender greater trust in the firm (Mohan et al. 2019). Second, transparency into its internal efforts signals that the firm is taking responsibility for the harms imposed by its operations and enacting steps to reduce them. In contrast, consumers may perceive transparency into external CSR activities as attempts to inflate the firm's reputation while diverting attention away from the social or environmental problems for which it is directly responsible, irrespective of the organization's actual performance (Nyilasy et al. 2014). Hence, the underlying motive of the firm pursuing external CSR initiatives can be perceived as equivocal, thereby reducing the benefits arising from transparency.

On the other hand, it is also known that responsible operations practices can bring private benefits to a firm, in addition to benefiting society. For example, operational process improvements for reducing energy and water consumption can yield significant cost savings (Rajaram and Corbett 2002). Moreover, firms that pursue waste prevention at the source experience financial gain, whereas other external means for reducing waste are not profitable (King and Lenox 2002). To the extent that consumers recognize these benefits, they may view a firm's disclosure about its responsible operations practices to be supportive of its profit motive. Consumers may, in turn, perceive the firm's disclosure to be self-serving, reducing their motivation to purchase (Webb and Mohr 1998).

Owing to these tensions, we pose a comparison of the effects of transparency into internal and external responsibility initiatives on consumer perceptions as an empirical question, which we attempt to answer through our experimental studies, presented in the section that follows.

3. Presentation of research

Through two field studies conducted in collaboration with manufacturers and retailers in the apparel and consumer packaged goods industries, and an online consumer choice study, we investigate how providing consumers with transparency into a company's social or environmental responsibility efforts influences sales. In particular, for each responsibility domain, we compare the sales effects of transparency into a company's responsibility initiatives that are either internal or external to its value chain.

3.1 Study 1: Field Experiment – Social Responsibility Transparency and Sales

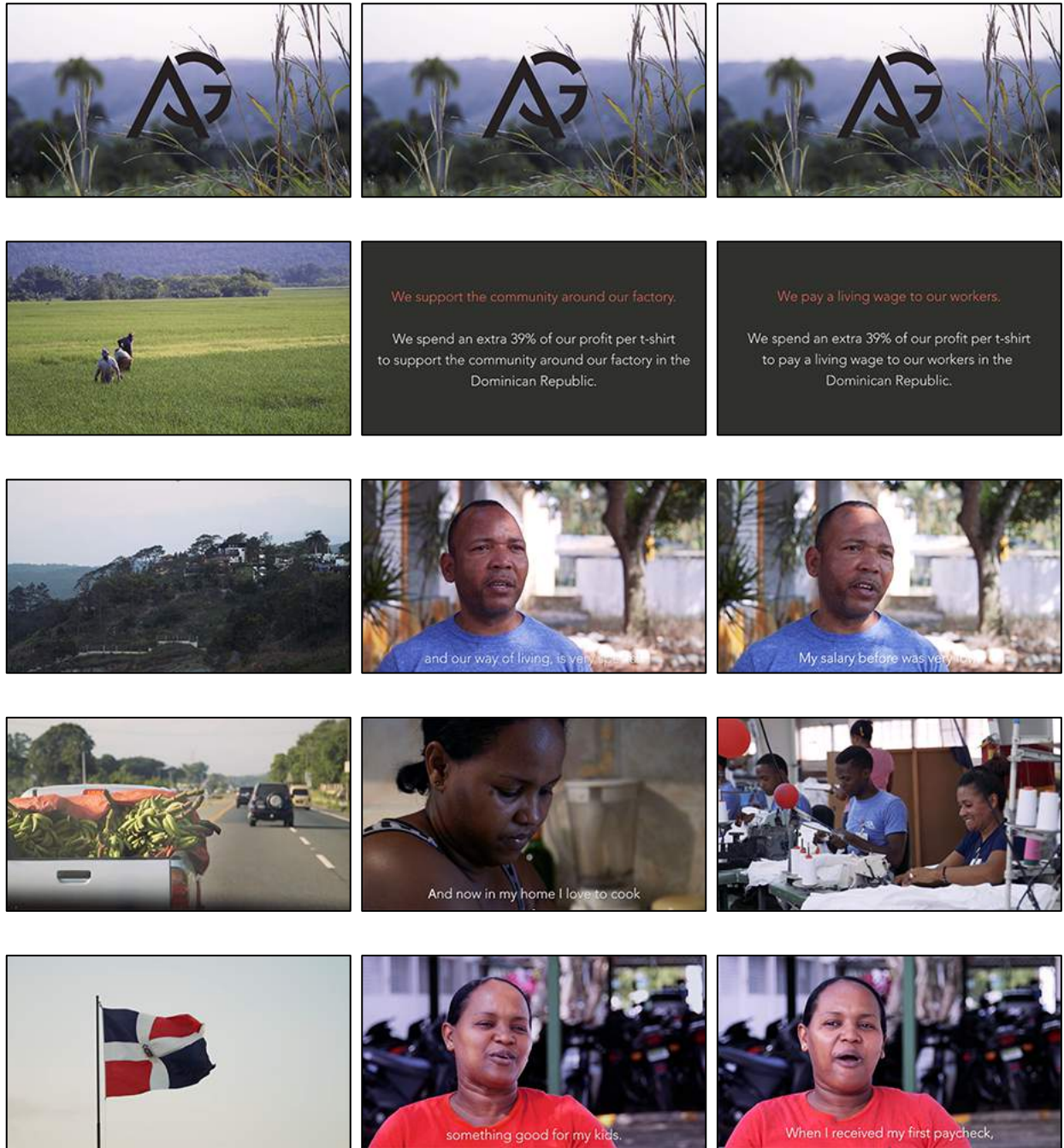
3.1.1 Design and procedure. To test the impact of transparency into a company's social responsibility efforts on sales, we partnered with Alta Gracia, a manufacturer of officially-licensed collegiate apparel, with operations based in the Dominican Republic. Founded in 2010, Alta Gracia is named after Villa Altigracia, the village where its primary sewing facility is located. Importantly for the purposes of our study, Alta Gracia pays a living wage to its workers, meaning that the wages it pays have been verified by the Worker Rights Consortium, an independent labor rights monitoring organization, to be sufficient to allow employees to maintain a normal standard of living: supporting education for the workers' children, housing, and reliable transportation. According to the company, its wages are "2.5 times the industry standard and 3.5 times the Dominican minimum wage (Alta Gracia 2019)."

In collaboration with Alta Gracia and The Looma Project, a company that develops and distributes media for point-of-sale display, we produced three videos (**Figure 1**), each of comparable length (48-53

seconds), featuring brand imagery and/or transparency into the company's social responsibility practices (videos available online, and a transcript of each is provided in the online appendix). All three videos had the same musical soundtrack and cinematographic style, beginning and ending with the company's logo, and imagery of life in and around Villa Altagracia. The control video (online at: <https://bit.ly/2TwT4KJ>) consisted exclusively of brand imagery, showing life in and around the village: houses on a hillside, people working in a field, local pink flowers blowing in the wind, bananas on a truck being driven to the market, people interacting in the village, and a billowing Dominican Republic flag.

The two treatment videos leveraged this same imagery, but also incorporated content about Alta Gracia's social responsibility practices, framing Alta Gracia's efforts as either external to its value chain, consistent with traditional CSR practices, or internal to its value chain, consistent with sustainable operations practices. The External Responsibility video (online at: <https://bit.ly/2YnbbX9>) began by indicating, "We support the community around our factory. We spend an extra 39% of our profit per t-shirt to support the community around our factory in the Dominican Republic." The video additionally featured interviews with two people talking about how Alta Gracia's support contributed to the wellbeing of their families, and a clip with Alta Gracia's CEO describing how the company put \$8 million into the local community since its founding.

The Internal Responsibility/Sustainable Operations video (online at: <https://bit.ly/2Fvko6O>) began by indicating, "We pay a living wage to our workers. We spend an extra 39% of our profit per t-shirt to pay a living wage to our workers in the Dominican Republic." The video additionally featured interviews with the same two people previously described, but indicating that they are employees of Alta Gracia, and intercutting footage of people working in the company's factory. The interviews are cut in a slightly different way to make it clear that Alta Gracia's support of their families' wellbeing comes in the form of a living wage. This video also closes with a clip from the same interview with Alta Gracia's CEO describing the \$8 million the company put into the community, but adding, "our core mission is really respect for the workers, and part of that is to pay them a living wage." These two treatment videos were designed to be truthful, and to be as similar as possible in every respect, except to frame Alta Gracia's contribution to the local community to be either internal or external to its value chain (**Figure 1**).



A. Brand Imagery

B. External Transparency

C. Internal Transparency

Figure 1: Screenshots from experimental stimuli (Study 1). Panels A, B, and C show screenshots from the brand imagery control video, the external transparency video, and the internal transparency video, respectively. All videos were of similar duration. The full text transcript from each video is available in the Appendix, and the full videos are available online for review.



A. Social Responsibility (Study 1)



B. Environmental Responsibility (Study 2)

Figure 2: Remotely controlled video kiosks used to manipulate point-of-sale videos (Studies 1-2). Panel A shows the video display as deployed in a college bookstore in Study 1. Panel B shows the video display as deployed in a grocery store in Study 2. Note: The image on the screen in Panel B is the static slide used as a buffer between videos in Study 2.

In order to test the impact of these various forms of transparency on sales, we collaborated with the collegiate bookstore of one of Alta Gracia’s university customers in the Southeastern United States. In addition to books, the retailer sells a variety of gifts, clothing, electronics, memorabilia, and school and office supplies, to students and visitors of the university. To facilitate our analysis, from February 1 – April 30, 2018, we collected transaction-level data on every sale conducted at the bookstore ($N = 36,906$), including the time and date of each transaction, the register where the transaction took place, which items were purchased, the quantity of each item purchased, and the price of each item purchased. Item-level SKU data from each transaction enabled us to identify when Alta Gracia products were purchased. Prices of the Alta Gracia products remained constant throughout the experiment. From March 19 – April 15, 2018, in the middle of our period of analysis, we introduced a video kiosk near the Alta Gracia merchandise (**Figure 2**), which could be remotely controlled to show the three videos in adherence with a predetermined schedule.

Day	Date	Morning	Afternoon	Evening
Monday	19-Mar	Brand	External	Internal
Tuesday	20-Mar	External	Brand	Internal
Wednesday	21-Mar	External	Brand	Internal
Thursday	22-Mar	Internal	Brand	External
Friday	23-Mar	Internal	Brand	External
Saturday	24-Mar	Brand	External	Internal
Sunday	25-Mar	External	Brand	Internal
Monday	26-Mar	Brand	Internal	External
Tuesday	27-Mar	Internal	Brand	External
Wednesday	28-Mar	External	Internal	Brand
Thursday	29-Mar	Internal	Brand	External
Friday	30-Mar	Brand	Internal	External
Saturday	31-Mar	Brand	Internal	External
Sunday	1-Apr	Internal	Brand	External
Monday	2-Apr	External	Brand	Internal
Tuesday	3-Apr	Internal	External	Brand
Wednesday	4-Apr	Brand	Internal	External
Thursday	5-Apr	External	Internal	Brand
Friday	6-Apr	Brand	External	Internal
Saturday	7-Apr	Internal	Brand	External
Sunday	8-Apr	External	Internal	Brand
Monday	9-Apr	Internal	External	Brand
Tuesday	10-Apr	Brand	Internal	External
Wednesday	11-Apr	Internal	External	Brand
Thursday	12-Apr	Brand	External	Internal
Friday	13-Apr	External	Internal	Brand
Saturday	14-Apr	External	Internal	Brand
Sunday	15-Apr	Brand	External	Internal

Day	Date	Morning	Afternoon	Evening
Wednesday	30-Aug	Brand	External	Internal
Thursday	31-Aug	Brand	Internal	External
Friday	1-Sep	Internal	External	Brand
Saturday	2-Sep	Internal	External	Brand
Sunday	3-Sep	Internal	External	Brand
Monday	4-Sep	External	Internal	Brand
Tuesday	5-Sep	Internal	Brand	External
Wednesday	6-Sep	Internal	Brand	External
Thursday	7-Sep	External	Internal	Brand
Friday	8-Sep	Internal	Brand	External
Saturday	9-Sep	Brand	Internal	External
Sunday	10-Sep	External	Brand	Internal
Monday	11-Sep	Internal	Brand	External
Tuesday	12-Sep	Brand	External	Internal
Wednesday	13-Sep	External	Internal	Brand
Thursday	14-Sep	Internal	Brand	External
Friday	15-Sep	Brand	Internal	External
Saturday	16-Sep	External	Brand	Internal
Sunday	17-Sep	Brand	Internal	External
Monday	18-Sep	Brand	External	Internal
Tuesday	19-Sep	External	Internal	Brand
Wednesday	20-Sep	Brand	Internal	External
Thursday	21-Sep	Brand	External	Internal
Friday	22-Sep	External	Brand	Internal
Saturday	23-Sep	Internal	Brand	External
Sunday	24-Sep	External	Brand	Internal
Monday	25-Sep	External	Internal	Brand
Tuesday	26-Sep	External	Brand	Internal
Wednesday	27-Sep	External	Internal	Brand
Thursday	28-Sep	Internal	Brand	External
Friday	29-Sep	Internal	Brand	External
Saturday	30-Sep	Brand	External	Internal
Sunday	1-Oct	External	Internal	Brand
Monday	2-Oct	Internal	Brand	External
Tuesday	3-Oct	Brand	Internal	External

A. Study 1 (Social Responsibility)

B. Study 2 (Environmental Responsibility)

Figure 3: Staggered treatment design (Studies 1-2). Panel A represents the staggered treatment design for Study 1. Panel B represents the staggered treatment design for Study 2. Unlisted days within the period of observation received no videos. Shaded dates listed in Panel B correspond with days when technical issues prevented the accurate deployment of the treatment. These dates are excluded from our primary analysis. An additional week was added to the experiment to make up for these lost days.

We divided each day into three time periods: morning (8:30 am – 11:30 am), afternoon (12:15 pm – 3:15 pm), and evening (4:00 pm - 7:00 pm), during which one of the three videos would be continually shown. We counterbalanced the presentation of videos during the four weeks of the experiment, to cleanly distinguish the effect of the treatments on purchase behavior independent of time of day or day of week effects (**Figure 3**). Customers who purchased products during these time periods were denoted to have experienced the corresponding experimental condition. We further designed 45-minute buffers to exist between each experimental time period. During these buffers, no videos were shown, which helped us facilitate a clean mapping between the administration of experimental stimuli and the purchase decisions of customers. Purchases made during these buffer periods were attributed to the experimental condition that

preceded the buffer. Conversations with the store manager revealed that the typical throughput time of a customer visit was less than 45 minutes. Although this design choice means that some customers who visited the store when no video was being shown were assigned to one experimental condition or another, it significantly reduces the probability that a customer's purchase would be mistakenly attributed to the wrong experimental condition, improving the internal validity of our analysis. Hence the results we present for this experiment should be considered conservative estimates of the effects of each experimental condition on sales.

3.1.2 Empirical approach. As shown in Equation 1, we model sales performance, $SALES_{i,t}$, in terms of whether an Alta Gracia item was purchased, the number of Alta Gracia items purchased, the average price of the Alta Gracia items in the basket, and the total spend on Alta Gracia products in the basket, as a function of the experimental condition, and various transaction and time-level controls. The binary indicator variable of whether a focal product was purchased was modelled using logistic regression, and the three continuous measures were modelled using OLS regression. All specifications include robust standard errors, clustered by transaction date:

$$SALES_{i,t} = f \left(\begin{array}{l} CONTROL_t + EXT_TRANS_t + INT_TRANS_t + \\ ITEMS_{i,t} + SPEND_{i,t} + REGISTER_{i,t} + DAY_t + HOUR_t + \epsilon_{i,t} \end{array} \right) \quad (1)$$

In the above specification, $CONTROL_t$, EXT_TRANS_t , and INT_TRANS_t , are indicator variables denoting whether the time period of the customer purchase corresponded with the brand imagery control condition, the external responsibility transparency condition, or the internal transparency/responsible operations condition, respectively. $ITEMS_{i,t}$ and $SPEND_{i,t}$ controlled for aspects of the transaction, specifically, the number and total price of items in the basket. $REGISTER_{i,t}$, DAY_t and $HOUR_t$ were indicator variables denoting the register where the transaction took place, and the day of the week and the hour of the day when the items were purchased.

3.1.3 Analysis and results. As shown in Table 1, relative to the baseline condition of no video, sales were enhanced when videos of any kind were showing. Column (1) shows that the probability of purchasing a focal product was increased from 5.56% to 6.77% when a video of brand imagery was shown ($\beta=0.209$, $P < 0.05$). Showing a video that provided transparency into Alta Gracia's social responsibility practices increased the probability of purchase to 6.92% when that video cast Alta Gracia's responsibility efforts to be external to the company's value chain ($\beta=0.233$, $P < 0.05$), and to 7.86% when that video cast Alta Gracia's responsibility efforts to be internal to the company's value chain ($\beta=0.373$, $P < 0.01$). Other sales metrics followed very similar patterns, as demonstrated in Columns (2-4).

Columns (5-8) change the baseline, evaluating the sales impact of the responsibility transparency videos against the brand imagery videos, in order to differentiate the effect of providing responsibility information. Columns (5) and (6) show that providing internal transparency marginally outperformed providing a video of brand imagery, increasing the probability of purchasing a focal product ($\beta=0.163$, $P < 0.10$), and increasing the average quantity purchased ($\beta=0.017$, $P < 0.10$). Providing external transparency, however, had a comparable influence on all sales metrics to providing a video of brand imagery. Untabulated analyses, which shift the baseline to the external transparency condition, further reveal that although internal transparency nominally outperforms external transparency on every measured dimension, these differences were statistically indistinguishable ($P_s > 0.111$).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Pr(Focal purchase)	Quantity purchased	Average price of focal products purchased	Total spend on focal products purchased	Pr(Focal purchase)	Quantity purchased	Average price of focal products purchased	Total spend on focal products purchased
Brand imagery	0.209** [0.083]	0.011* [0.006]	0.441** [0.185]	0.448** [0.218]				
External transparency	0.233** [0.105]	0.016** [0.007]	0.563** [0.236]	0.732** [0.294]				
Internal transparency	0.373*** [0.087]	0.028*** [0.008]	0.774*** [0.242]	0.980*** [0.345]				
Video indicator					0.209** [0.083]	0.011* [0.006]	0.441** [0.185]	0.448** [0.218]
Video x external transparency					0.024 [0.107]	0.005 [0.007]	0.122 [0.226]	0.285 [0.291]
Video x internal transparency					0.163* [0.098]	0.017* [0.009]	0.333 [0.282]	0.532 [0.358]
Total items purchased in transaction	0.001** [0.001]	0.000** [0.000]	0.007** [0.003]	0.009** [0.005]	0.001** [0.001]	0.000** [0.000]	0.007** [0.003]	0.009** [0.005]
Total spend in transaction	-0.000*** [0.000]	-0.000*** [0.000]	-0.000*** [0.000]	-0.000*** [0.000]	-0.000*** [0.000]	-0.000*** [0.000]	-0.000*** [0.000]	-0.000*** [0.000]
Constant	-35.478*** [0.530]	-0.094*** [0.013]	-2.825*** [0.412]	-3.309*** [0.502]	-35.478*** [0.569]	-0.094*** [0.013]	-2.825*** [0.412]	-3.309*** [0.502]
Model	Logistic	OLS	OLS	OLS	Logistic	OLS	OLS	OLS
Fixed effects included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Marginal effects (Baseline)	5.56%	0.060	1.75	2.14	5.56%	0.060	1.75	2.14
Marginal effects (Control)	6.77%	0.070	2.19	2.59	6.77%	0.070	2.19	2.59
Marginal effects (External transparency)	6.92%	0.075	2.31	2.87	6.92%	0.075	2.31	2.87
Marginal effects (Internal transparency)	7.86%	0.087	2.52	3.12	7.86%	0.087	2.52	3.12
Observations	36,617	36,906	36,906	36,906	36,617	36,906	36,906	36,906
(Pseudo) R-squared	0.0152	0.007	0.008	0.007	0.0152	0.007	0.008	0.007

Table 1: Effects of social responsibility transparency on sales (Study 1). Robust standard errors, clustered by transaction date, are shown in brackets. All models include indicator variables for the day of week, the hour of the day, and the register where the transaction was conducted. The reduced number of observations presented in the logistic regression analyses in columns (1) and (5) are due to the presence of indicator variables that are perfectly predictive of focal purchase (or the lack thereof). *, **, and ***, signify significance at the 10%, 5%, and 1% levels, respectively.

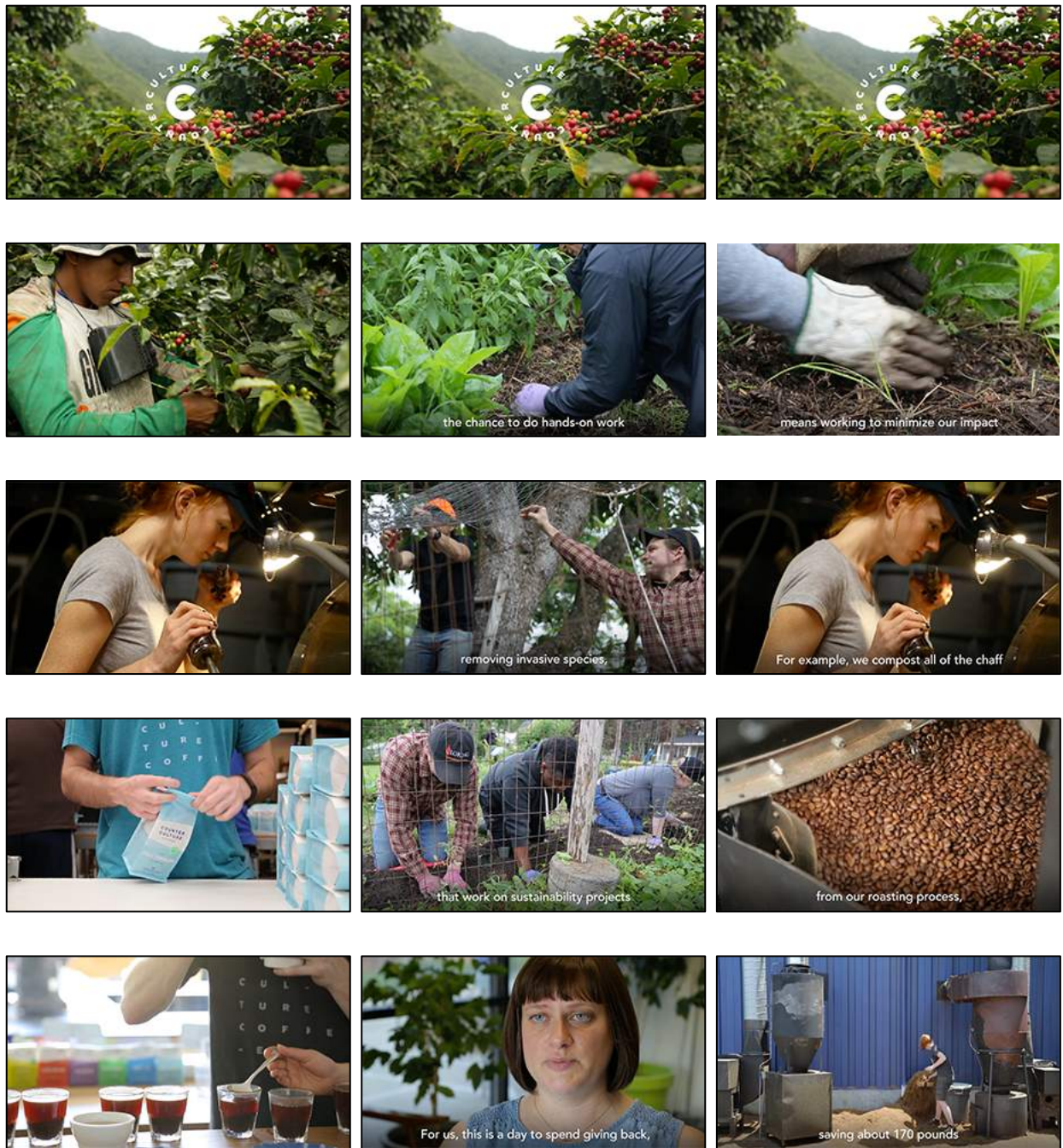
Taken together, these results suggest that not only can engaging in operating practices that are socially responsible yield better working conditions, which prior research has shown can improve a company's productivity, providing consumers with operational transparency into these internal initiatives can spur

sales at least as well as transparency into external social responsibility practices. Customers exposed to point-of-sale transparency into Alta Gracia's practice of paying a living wage to its workers were 13.6% more likely to buy Alta Gracia's products than customers exposed to similar messaging framing Alta Gracia's social contributions to be external to its value chain, and 16.1% more likely to buy than customers exposed to a brand imagery video.

3.2 Study 2: Field Experiment – Environmental Responsibility Transparency and Sales

3.2.1 *Design and procedure.* Study 1 provided preliminary evidence that providing transparency into a company's internal socially-responsible operations practices can be a strong motivator of consumer choice. Study 2 tests these same dynamics in the environmental domain, and in a different industry, consumer packaged goods. For Study 2, we partnered with Counter Culture Coffee (Counter Culture), a Durham, North Carolina-based coffee roasting company that was founded in 1995. Importantly for the purposes of our study, Counter Culture engages in numerous environmental sustainability practices, both external and internal to its value chain. Externally, Counter Culture supports organizations working on sustainability projects and environmental conservation, and holds an annual company-wide volunteer day, giving everyone at Counter Culture the chance to do hands-on environmental work in the local community, like cleaning up creeks, removing invasive species, and planting trees. Internally, Counter Culture composts all of the chaff from its roasting process, turning it into garden compost, and saving approximately 170 pounds of waste from the landfill each week.

Leveraging a similar approach as in Study 1, we collaborated with Counter Culture to produce three videos, each of which were 37 seconds in duration, featuring brand imagery and/or transparency into the company's environmental responsibility practices (videos available online, and a transcript of each is provided in the Online Appendix). All three videos had the same musical soundtrack and cinematographic style, beginning and ending with the company's logo, and imagery of coffee harvesting, roasting, packaging, and brewing. The control video (online at: <https://bit.ly/2TVxa8T>) consisted exclusively of this imagery.



A. Brand Imagery

B. External Transparency

C. Internal Transparency

Figure 4: Screenshots from experimental stimuli (Study 2). Panels A, B, and C show screenshots from the brand imagery control video, the external transparency video, and the internal transparency video, respectively. All videos were of similar duration. The full text transcript from each video is available in the Appendix, and the full videos are available online for review.

The two treatment videos, which were narrated by the company’s sustainability manager, additionally included transparency into examples of Counter Culture’s environmental responsibility practices. Both videos began with the narration, “At Counter Culture Coffee, we value environmental sustainability.” The External Responsibility video (online at: <https://bit.ly/2HQQ9dt>) went on to describe and show imagery of activities such as planting and removing invasive species during the company’s annual volunteer day. The narrator describes how they “focus [their] efforts on organizations that work on sustainability projects and environmental conservation,” and how this is an example of the company putting its “values into action.”

The Internal/Responsible Operations video (online at: <https://bit.ly/2TUJEOa>) described and showed imagery of composting chaff from the coffee roasting process. The narrator describes how “to [them], being a responsible company means working to minimize [their] impact as much as possible,” and how “sustainability has always been at the core of what [they] do.” Again, the two treatment videos were designed to be as similar as possible, but with each providing transparency into the work the company does either outside or inside its value chain to promote environmental sustainability (**Figure 4**).

In order to test the impact of these various forms of transparency on sales, we collaborated with a regional supermarket chain in the Southeastern United States that sells Counter Culture’s products. As in the first study, we used point-of-sales kiosks showing three different videos. To facilitate our analysis, from August 2 – October 3, 2017, we collected transaction-level data on every sale conducted at one location of our partner retailer ($N = 47,858$), including the time and date of each transaction, the register where the transaction took place, which items were purchased, the quantity of each item purchased, and the price of each item purchased. Item-level SKU data from each transaction enabled us to identify when Counter Culture products were purchased.

From August 30 – October 3, 2017, we again partnered with The Looma Project to integrate a video screen into the display of Counter Culture’s merchandise at the focal retail location, which could be remotely controlled to show the three videos in adherence with a predetermined schedule. We divided each day into three time periods: morning (6:00 am – 11:00 am), afternoon (12:00 pm – 5:00 pm), and evening (6:00 pm – 11:00 pm), during which one of the three videos would be continually shown. We counterbalanced the presentation of videos during the four weeks of the experiment, to cleanly distinguish the effect of the treatments on purchase behavior independent of time of day or day of week effects (**Figure 3**). Similar to Study 1, we placed buffers between each experimental time period, elongated to an hour in recognition of the prolonged throughput time of customers shopping for groceries. Since the video screen was so integral to the Counter Culture merchandise display, we were concerned that showing no videos during these buffer periods might suppress sales by giving customers the false sense of faulty technology.

Hence, a static slide of brand imagery was displayed during this buffer period. All purchases during these buffer periods were attributed to the video that preceded the buffer.

3.2.2 Empirical approach. We utilize the same empirical strategy as in Study 1, and as documented in Equation 1. We model sales performance, $SALES_{i,t}$, in terms of whether a Counter Culture item was purchased, the number of Counter Culture items purchased, the average price of the Counter Culture items in the basket, and the total spend on Counter Culture products in the basket, as a function of the experimental condition, and various transaction and time-level controls. The binary indicator variable of whether a focal product was purchased was modelled using logistic regression, and the three continuous measures were modelled using OLS regression. All specifications include robust standard errors, clustered by transaction date. All control variables are identically specified as in Study 1, and as described in Section 3.1.2.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Pr(Focal purchase)	Quantity purchased	Average price of focal products purchased	Total spend on focal products purchased	Pr(Focal purchase)	Quantity purchased	Average price of focal products purchased	Total spend on focal products purchased
Brand imagery	0.025 [0.302]	0.000 [0.001]	0.000 [0.007]	-0.001 [0.011]				
External transparency	0.266 [0.265]	0.002* [0.001]	0.012 [0.009]	0.039 [0.025]				
Internal transparency	0.646*** [0.214]	0.003*** [0.001]	0.025*** [0.009]	0.057* [0.029]				
Video indicator					0.025 (0.302)	0.000 (0.001)	0.000 (0.007)	-0.001 (0.011)
Video x external transparency					0.241 (0.241)	0.002* (0.001)	0.012 (0.007)	0.040* (0.021)
Video x internal transparency					0.621* (0.333)	0.003** (0.001)	0.025* (0.013)	0.058* (0.032)
Total items purchased in transaction	-0.025*** [0.008]	0.000 [0.000]	0.000 [0.000]	0.000 [0.001]	-0.025*** (0.008)	0.000 (0.000)	0.000 (0.000)	0.000 (0.001)
Total spend in transaction	0.011*** [0.001]	0.000** [0.000]	0.000** [0.000]	0.000* [0.000]	0.011*** (0.001)	0.000** (0.000)	0.000** (0.000)	0.000* (0.000)
Constant	-14.279*** [0.574]	-0.001 [0.001]	-0.007 [0.009]	-0.018 [0.017]	-14.279*** (0.576)	-0.001 (0.001)	-0.007 (0.009)	-0.018 (0.017)
Model	Logistic	OLS	OLS	OLS	Logistic	OLS	OLS	OLS
Fixed effects included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Marginal effects (Baseline)	0.22%	0.002	0.02	0.03	0.22%	0.002	0.02	0.03
Marginal effects (Control)	0.22%	0.003	0.02	0.03	0.22%	0.003	0.02	0.03
Marginal effects (External transparency)	0.28%	0.004	0.03	0.07	0.28%	0.004	0.03	0.07
Marginal effects (Internal transparency)	0.41%	0.005	0.05	0.09	0.41%	0.005	0.05	0.09
Observations	43,078	47,858	47,858	47,858	43,078	47,858	47,858	47,858
(Pseudo) R-squared	0.0269	0.001	0.001	0.001	0.0269	0.001	0.001	0.001

Table 2: Effects of environmental responsibility transparency on sales (Study 2). Robust standard errors, clustered by transaction date, are shown in brackets. All models include indicator variables for day of week, hour of day, and register where the transaction was conducted. The reduced number of observations presented in the logistic regression analyses in columns (1) and (5) are due to the presence of indicator variables that are perfectly predictive of focal purchase (or the lack thereof). *, **, and ***, signify significance at the 10%, 5%, and 1% levels, respectively.

3.2.3 *Analysis and results.* Table 2 shows a pattern of results that are generally consistent with what was observed in Study 1, with slightly more muted purchase probabilities, likely owing to the relatively broad inventory assortment and heterogeneous purchase behavior typical of a grocery store context versus a college bookstore. Column (1) shows that although the probability of purchase increased nominally from 0.22% in the baseline and brand imagery video conditions to 0.28% when the external transparency video was playing ($\beta=0.266$, $P = \text{NS}$), purchase probabilities rose significantly, to 0.41%, when internal transparency was provided ($\beta=0.646$, $P < 0.01$). Columns (3) and (4) exhibited similar patterns to Column (1). In Column (2), the quantity of Counter Culture products was marginally higher under external transparency ($\beta=0.002$, $P < 0.10$) than in the baseline no video condition, rising 69% from 0.0024 to 0.0041 focal items purchased. However, the sales lift was even stronger when internal transparency was provided, increasing the quantity of Counter Culture products purchased 122% over baseline rates ($\beta=0.003$, $P < 0.01$). An untabulated analysis of sales data from 2016 reveals consistent performance across our four focal sales measures before and after August 30, the activation date of our videos. This historical consistency suggests that it is unlikely that the treatment effects described above are attributable to intertemporal sales differences.

Columns (5-8) change the baseline, evaluating the sales impact of the transparency videos against the brand imagery videos. Although transparency into the company's external sustainability practices has a marginally positive effect on the quantity of items purchased ($\beta=0.002$, $P < 0.10$) and the total spend on focal products ($\beta=0.040$, $P < 0.10$) over the brand imagery videos, internal transparency has a positive effect in all categories. Untabulated analyses, which shift the baseline to the external transparency condition, further reveal that although internal transparency nominally outperforms external transparency on every measured dimension, these differences were statistically indistinguishable ($P_s > 0.149$).

Despite being in a different industry and sustainability domain, these results converge with the findings from Study 1, offering further evidence that providing transparency into a company's internal responsibility efforts can be as effective in motivating customer purchases as providing transparency into responsibility efforts that are external to its value chain. Customers exposed to point-of-sale transparency into Counter Culture's internal sustainability practices were 45.8% more likely to buy the company's products than customers exposed to similar messaging about its external sustainability practices, and were in turn approximately twice as likely to buy a focal product than customers exposed to a brand imagery video.

3.3 Study 3: Laboratory Experiment – Mechanisms Underlying the Effects

Studies 1 and 2 provided field evidence that providing transparency into a company's internal social and environmental sustainability practices can be at least as motivating to consumers as providing transparency into sustainability practices that are external to the company's value chain. The primary purpose of Study 3 is to investigate potential mechanisms linking transparency into internal and external responsibility practices to sales.

For that purpose, we first compare how transparency into internal and external responsibility practices affect consumer perceptions of a company. An extensive body of literature shows that consumers' perceptions of such practices can affect their evaluations of companies (e.g., Brown and Dacin 1997, Sen and Bhattacharya 2001). Transparency into a firm's social or environmental responsibility can boost brand trust (Kalkanci et al. 2016), which in turn has been linked to greater consumer loyalty and positive market outcomes (Chaudhuri and Holbrook 2001). A responsibility activity is found to be more likely to have a positive impact on purchase intentions and overall company image if it is perceived as relevant to the firm's abilities (Sen and Bhattacharya 2001), as altruistic and not self-serving (Webb and Mohr 1998), and as sincere (Yoon et al. 2006). Thus motivated, we test how transparency into internal and external responsibility practices affect each of the perceptions discussed above. We then identify the key psychological processes through which transparency motivates sales.

3.3.1 Participants. 661 participants (44.1% female, $M_{age}=37.52$, $SD=11.36$) completed this experiment on the Amazon Mechanical Turk platform in exchange for 75 cents (Buhrmester et al. 2011; Mason and Suri 2012). Participants were recruited to take part in a study about consumer preferences, and were informed that completing the survey would take 5 minutes. We sought a minimum of 50 observations per condition who passed the attention check.

3.3.2 Design and procedure. As each participant arrived and completed the informed consent process, they were randomly assigned to one condition in a 2(sustainability domain: social, environmental) x 2(initiative type: internal, external) + 1(transparency: blind) between-subjects design. Participants were informed that "Gracia manufactures collegiate apparel (university t-shirts and sweatshirts)," and were shown a photo of a navy blue sweatshirt and a hangtag. Although the image of the sweatshirt was identical in every condition, the hangtag was manipulated to reflect one of the five experimental conditions.

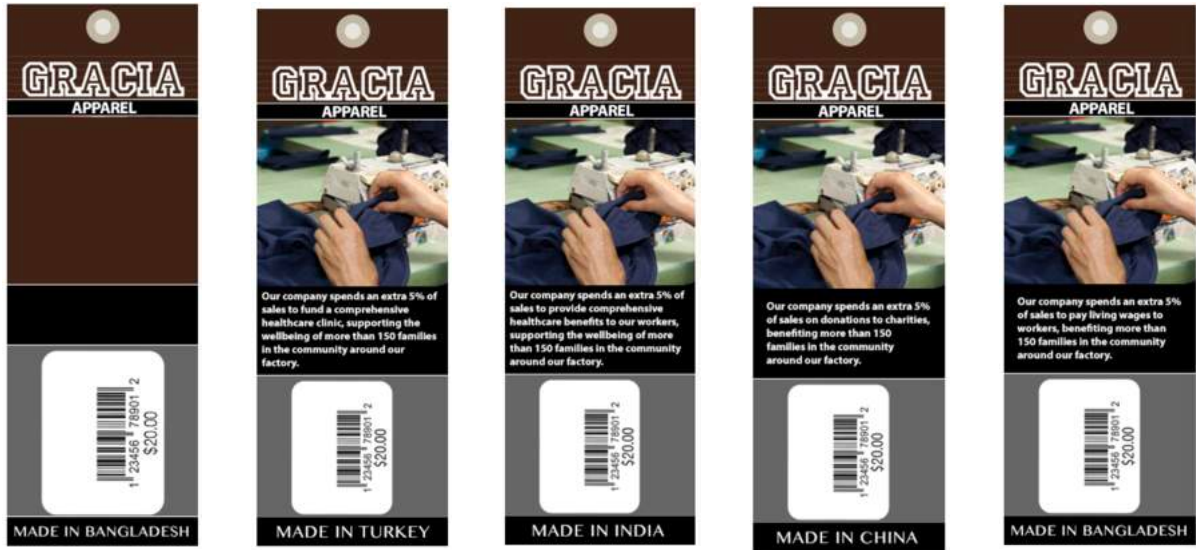
Each hangtag carried the same basic company logo and design scheme. To mitigate the concern that the effects we document may depend on any particular manufacturing region, for each participant, we randomly selected and displayed a country of origin for the garment from among a list of the most popular apparel manufacturing countries (e.g., Bangladesh, Mexico, Turkey, China, or India). Furthermore, in order

to broaden the set of social and environmental initiatives represented by the experiments deployed in this paper, we created two matched pairs of internal and external initiatives per sustainability domain that were as consistent in every respect (such as the spending amount on the initiative and the environmental or social impact of the initiative), except that one was internal to the value chain and the other was external to the value chain. Environmental sustainability initiatives pertained to reducing greenhouse gas emissions and water conservation, and social sustainability initiatives pertained to promoting community health and economic wellbeing (**Figure 5**). After reviewing the company's sustainability effort (or not), participants were asked a series of questions to assess their willingness to purchase the focal product and their perceptions of the company. As we do not observe differential effects based on country of origin and initiative type, for our primary analysis presented below, we collapse results together across the five experimental conditions noted above.

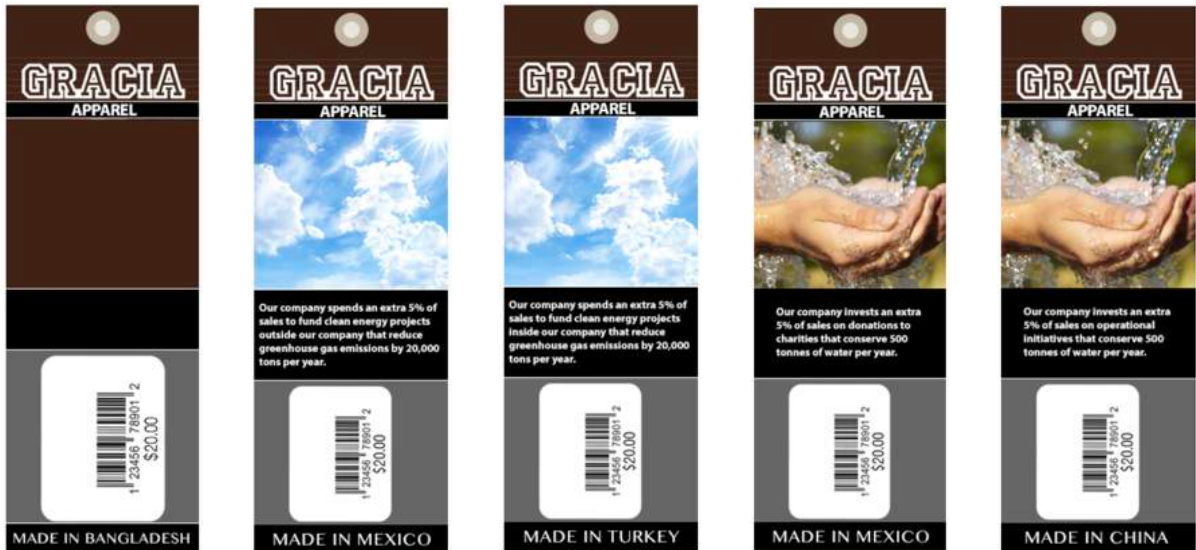
3.3.3. Attention check. To assess whether participants were paying attention to the experimental stimuli, we asked participants what kind of initiative Gracia featured on its hangtag (environmental, social, political, data, none of the above). Participants whose answer matched the condition to which they were randomly assigned were retained in the analysis, resulting in a final sample of 444 participants (45.2% female, $M_{age}=38.97$, $SD=11.67$).

3.3.4. Dependent measures. Willingness to buy was measured by asking participants, "given the opportunity, how likely is it that you would purchase this product?" Responses were provided on a 7-point Likert scale ranging from 1(not at all likely) to 7 (extremely likely). Drawing upon prior literature, we also considered how transparency into a company's different responsibility initiatives affected attitudes towards the company, including brand trust, cause sincerity, corporate ability, attractiveness as an employer, favorability, self-servingness, and altruism.

We assessed brand trust by asking participants to rate the extent to which they agreed with the statements on four items ("I would trust Gracia," "I would rely on Gracia," "Gracia is an honest brand," "Gracia produces safe products," ($\alpha = 0.92$)) on a 7-point Likert scale (Chaudhuri and Holbrook 2001). To measure social and environmental cause sincerity, we asked participants to rate (1 = "strongly disagree" to 7 = "strongly agree") how much they agreed with the statements, "Gracia sincerely cares about social sustainability," or "Gracia sincerely cares about environmental sustainability."



Blind Social/ external (1) Social/ internal (1) Social/ external (2) Social/ internal (2)



Blind Environmental/ external (1) Environmental/ internal (1) Environmental/ external (2) Environmental/ internal (2)

Figure 5: Screenshots of hangtags in various experimental conditions (Study 3). In Study 3, hangtags were manipulated to vary whether they provided transparency, and if so, whether it was into a social or environmental responsibility initiative, practiced inside or outside the company’s value chain. Two matched pairs of each type of responsibility initiative were created to diminish the reliance of results on any particular initiative type.

We assessed corporate ability by asking participants to rate the company (1= “very unfavorable,” 7= “very favorable”) on the following five dimensions: product quality, manufacturing ability, technical innovativeness, customer service, and product range ($\alpha=0.91$). Relatedly, we asked participants to evaluate the attractiveness of the company as a potential employer. Additionally, we measured the favorability of

the company's reputation with four items that capture the company's favorability, positivity, goodness, and likability on a 7-point Likert scale ($\alpha=0.97$) (Yoon et al. 2006). To measure participants' perceptions of the company's motives, we asked participants to rate how much they agreed with the following four statements (1 = "strongly disagree", 7 = "strongly agree") (Webb and Mohr 1998): "Gracia has this initiative to achieve gains for itself," "Gracia has this initiative to achieve gains mostly for itself and partly for others," "Gracia has this initiative to achieve gains mostly for others and partly for itself," and "Gracia has this initiative to achieve gains for others." The first two items are used to measure the self-servingness of the company ($\alpha=0.80$) and the last two items are used to measure the company's altruism ($\alpha=0.75$). Finally, we added perceived accuracy of information as a confound check to verify that our manipulations do not unwittingly affect the perceived credibility of the firm's transparency into its responsibility efforts. We measured accuracy by asking participants to assess the degree to which they "believe the information provided by Gracia is accurate." (Yoon et al. 2006) A confirmatory factor analysis, presented in the online appendix (**Table A1**), confirmed that these constructs were distinct, and where multiple items were present, exhibited sufficient internal validity for analysis.

3.3.5. Control variables. We additionally asked participants to provide their gender, age, and level of education and income, as well as their level of concern regarding social issues and environmental issues in the production of the products they purchase. In the analyses that follow, we matched the dimension of concern included in the analysis (e.g., social or environmental) with the randomly-assigned domain. However, we note that these variables exhibited a high degree of interitem covariance ($\bar{r} = 0.98$), and that the results are substantively similar if an aggregated metric of "social and environmental concern" ($\alpha=0.85$) is substituted as a control.

3.3.6. Empirical strategy. In Equation (2), we model willingness to buy and consumer attitudes towards the company, Y_i , as functions of our experimental manipulation and the control variables described above, in both the social and environmental domains.

$$Y_i = f \left(\begin{array}{l} EXT_TRANS_i + INT_TRANS_i + GENDER_i + AGE_i + \\ AGE^2_i + INCOME_i + EDUCATION_i + COMMIT_i + \epsilon_i \end{array} \right) \quad (2)$$

In order to additionally identify which perceptual differences, driven by transparency into external and internal responsibility initiatives, account for differences in willingness to buy, in Equation (3), we model willingness to buy, WTB_i as a function of the consumer attitudes, Y_i , impacted by transparency.

$$WTB_i = f \left(\begin{array}{l} Y_i + EXT_TRANS_i + INT_TRANS_i + GENDER_i + AGE_i + \\ AGE^2_i + INCOME_i + EDUCATION_i + COMMIT_i + \epsilon_i \end{array} \right) \quad (3)$$

3.3.7. Analysis and results. **Tables A2-3** present the results of the first stage of the analysis, modelling willingness to buy and consumer attitudes as a function of transparency into external and internal

responsibility initiatives as presented in Equation (2), in the social and environmental domains, respectively. Across domains, transparency into external and internal initiatives exhibited consistent and positive effects on willingness to buy ($\beta_s > 0.501$, $P_s < 0.10$), favorability ($\beta_s > 0.912$, $P_s < 0.01$), trust ($\beta_s > 0.451$, $P_s < 0.05$), corporate ability ($\beta_s > 0.558$, $P_s < 0.01$), cause sincerity ($\beta_s > 1.130$, $P_s < 0.01$), perceptions that the company is an attractive employer ($\beta_s > 1.097$, $P_s < 0.01$), and perceived altruism ($\beta_s > 1.213$, $P_s < 0.01$). **Tables A4-5** present the results of the second stage of the analysis, and provide evidence that these consumer attitudes, which are significantly shaped by transparency into external and internal responsibility initiatives, underlie the relationships among transparency and sales. Willingness to buy is positively affected by perceived favorability ($\beta_s > 0.857$, $P_s < 0.01$), trust ($\beta_s > 0.789$, $P_s < 0.01$), corporate ability ($\beta_s > 0.837$, $P_s < 0.01$), social cause sincerity ($\beta = 0.573$, $P < 0.01$), environmental cause sincerity ($\beta = 0.495$, $P < 0.01$), perceptions that the company is an attractive employer ($\beta_s > 0.570$, $P_s < 0.01$), and perceived altruism ($\beta_s > 0.419$, $P_s < 0.01$).

Moving beyond the pairwise analyses, a structural equation model with a high Comparative Fit Index ($CFI = 0.667$) and low Root Mean Squared Error of Approximation ($RMSEA = 0.193$) provides converging evidence for this pattern of relationships (**Figure 6**). Transparency into internal responsibility practices increase perceptions of favorability ($\beta = 1.003$, $P < 0.01$), trust ($\beta = 0.666$, $P < 0.01$), corporate ability ($\beta = 0.747$, $P < 0.01$), social cause sincerity ($\beta = 1.298$, $P < 0.01$), environmental cause sincerity ($\beta = 1.181$, $P < 0.01$), perceptions that the company is an attractive employer ($\beta = 1.291$, $P < 0.01$), and perceived altruism ($\beta = 0.883$, $P < 0.01$). Likewise, transparency into external responsibility practices increase perceptions of favorability ($\beta = 1.061$, $P < 0.01$), trust ($\beta = 0.713$, $P < 0.01$), corporate ability ($\beta = 0.672$, $P < 0.01$), social cause sincerity ($\beta = 1.262$, $P < 0.01$), environmental cause sincerity ($\beta = 1.131$, $P < 0.01$), perceptions that the company is an attractive employer ($\beta = 1.152$, $P < 0.01$), and perceived altruism ($\beta = 0.994$, $P < 0.01$). Controlling for other factors, consumers in turn, expressed an increased willingness to buy from companies they perceived to be more favorable ($\beta = 0.396$, $P < 0.01$), more trusted ($\beta = 0.261$, $P < 0.01$), more able ($\beta = 0.394$, $P < 0.01$), more sincerely committed to social causes ($\beta = 0.074$, $P < 0.05$), and a more attractive employer ($\beta = 0.196$, $P < 0.01$).

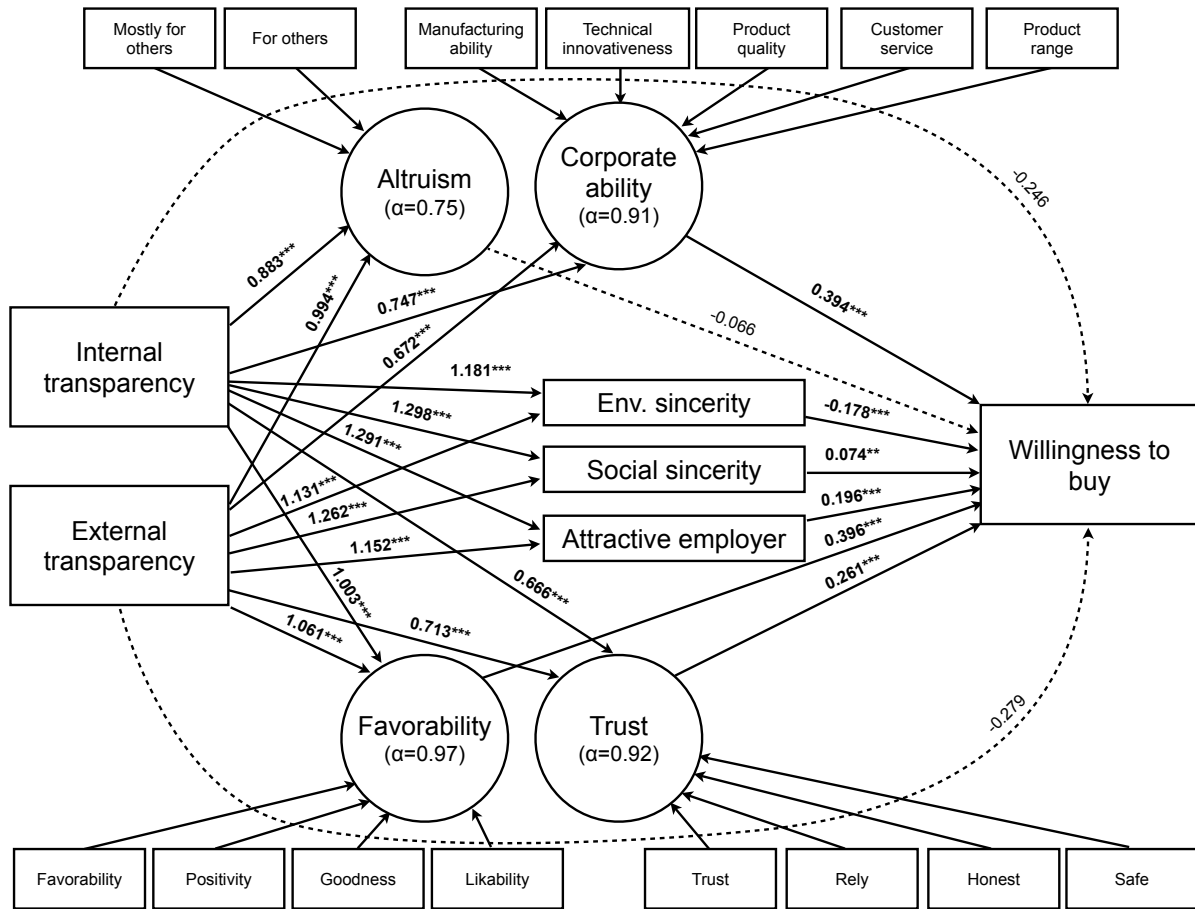


Figure 6: Structural equation model of the mechanisms underlying the effect of transparency into external and internal responsibility initiatives on sales (Study 3). *, **, and ***, signify significance at the 10%, 5%, and 1% levels respectively. Dotted lines represent insignificant relationships after accounting for the focal mediators.

Interestingly, controlling for these other factors, perceptions of the company’s altruism did not influence willingness to buy ($\beta=-0.066$, $P = 0.244$), and perceptions of the sincerity of the company’s environmental commitment had a negative effect on willingness to buy ($\beta=-0.178$, $P < 0.01$), suggesting that sales improvements engendered by transparency into environmental sustainability initiatives may be driven largely by these other mechanisms. After accounting for the paths through these mediators, the direct paths between internal transparency and willingness to buy ($\beta=-0.246$, $P = 0.239$) and between external transparency and willingness to buy ($\beta=-0.279$, $P = 0.182$) diminish near zero and to insignificance. These results provide converging evidence that not only does transparency into external and internal responsibility practices achieve comparable performance with respect to motivating customer purchase decisions, the underlying psychological processes driving differential purchase decisions appear consistent.

4. General Discussion

Across three studies, conducted in the field and in the lab, we have provided evidence that transparency into internal and external responsibility initiatives can drive sales, and that transparency into internal responsibility initiatives can be at least as motivating for consumers as transparency into external responsibility initiatives.

In Study 1, customers exposed to point-of-sale transparency into Alta Gracia's internal practice of paying a living wage to its workers were 13.6% more likely to buy Alta Gracia's products than customers exposed to similar messaging framing Alta Gracia's social contributions to be external to its value chain, and 16.1% more likely to buy than customers exposed to a brand imagery video. In Study 2, customers exposed to point-of-sale transparency into Counter Culture's internal sustainability practices were 45.8% more likely to buy the company's products than customers exposed to similar messaging about its external sustainability practices, and were in turn approximately twice as likely to buy than customers exposed to a brand imagery video. Study 3 delved into the effects of transparency into internal and external responsibility initiatives on consumer perceptions of the firm in order to uncover the behavioral link between transparency and sales. Interestingly, the results suggested that transparency into external and internal social and environmental responsibility initiatives have consistent and positive effects on willingness to buy and on consumer perceptions – elevating favorability, trust, corporate ability, social and environmental cause sincerity, perceived altruism, and perceptions that the firm would be a good employer. Finally, Study 3 demonstrated that transparency into internal and external responsibility initiatives can influence customer intentions to purchase through increased perceptions of favorability, trust, social cause sincerity, and the overall ability of the firm (corporate ability and attractiveness as an employer).

4.1 Managerial implications

Our results suggest that transparency into internal responsibility initiatives is just as effective as transparency into external responsibility initiatives in shifting consumer perceptions and motivating sales. Below, we look at the managerial implications of these results within the social and environmental domains we studied.

4.1.1 Operational transparency into socially-responsible operations practices can yield top and bottom-line benefits. In the social domain, rich streams of research in operations, economics, and organizational behavior have demonstrated how management practices that *take care* of employees can improve the productivity of organizations. Employees who feel supported by the organization exhibit higher engagement in their work (Saks 2006). In a recent meta-analysis of 339 studies, DeNeve, Krekel, and Ward

(2019) found that employee engagement was positively and significantly correlated with employee productivity, customer loyalty, and firm profitability. For low-income workers, higher wages, as in the Alta Gracia living wage example, can serve as a source of increased motivation (Yellen 1984), attract more productive workers (Dal Bo et al. 2013), and reduce staff turnover (Dube et al. 2007), thereby lessening training costs. Other recent work has shown that offering predictable and sustainable work schedules can improve employee retention, resulting in improved performance and higher sales (Williams et al. 2018). To the extent that providing customers with operational transparency into a firm's socially-responsible operations practices may increase sales as much as or more than transparency into external corporate social responsibility initiatives – while also yielding internal benefits for the firm as described above – our results suggest that managers would be wise to prioritize socially-responsible operations practices over social initiatives that are external to the firm's value chain. By investing more in the wellbeing of a firm's own workers, not only will the employees thrive, and in turn, perform better for the organization, but also, customers will value the firm more for having done so.

4.2.2 Operational transparency into environmentally-sustainable operations practices can yield top and bottom-line benefits. Likewise, in the environmental domain, rich streams of prior research have shown how environmentally sustainable operations practices can increase the efficiency of operating processes (Blanco et al. 2017, Rusinko 2007, Clelland et al. 2000, Klassen and Whybark 1999) and reduce the risk of regulatory infractions, supply disruptions, or brand damage (Chen and Lee 2017, Kalkanci and Plambeck 2018a,b, Plambeck and Taylor 2016). Our results add improving customer perceptions and increasing sales to internal responsibility's list of business virtues, providing a compelling link between internal responsibility initiatives and business value. To the extent that firms enacting internal sustainability practices stand to achieve cost and risk reduction benefits, while also potentially mitigating environmental harms, our results provide evidence of an additional business rationale for pursuing responsible operations practices.

4.2.3 Managers should prioritize internal socially and environmentally-responsible operations practices over similar external initiatives. Taken together, our results suggest that managers should consider prioritizing internal responsible operations practices within their portfolio of CSR activities, to mitigate social and environmental harms for people and the planet, and to achieve both top and bottom line benefits for their firms. Demonstrating the stakeholder value that can be generated by operational transparency into responsible operations (beyond risk/cost reduction) can increase the support for these activities across different parts of an organization, such as the marketing and CSR departments (Rangan et al. 2012). Our results also imply that investing in responsible operations practices can constitute a robust CSR strategy as

firms' motivations for responsibility evolve from risk management to creating differentiation (UN Global Compact & EY 2016).

4.2 Limitations and opportunities for future research

We recognize that our work also has certain limitations. For example, for the purpose of tighter identification and experimental control, we held the costs of implementing internal and external responsibility initiatives, and their associated social or environmental impacts, either identical or implicit in our field and lab experiments. In reality, the two types of responsibility initiatives may differ in their implementation costs, societal impacts, and the longevity of those impacts. For example, in carbon abatement, compensating activities external to a firm's operations are often perceived as the "easy way out" by firms, as opposed to tangible responsibility commitments (Kolk and Pinske 2004). On the other hand, responsible operations practices, once implemented, tend to be durable, and hence, are more likely to generate longer-term societal gains. Although engaging in such practices may reduce the firm's flexibility, it may also enhance consumers' perceptions of the firm's commitment to the cause. It will, therefore, be interesting to examine consumer response to transparency into different responsibility activities when the implementation costs, societal impacts, and the longevity of those impacts are made more salient in the transparency messages.

Second, since few firms are presently engaging in transparent, responsible operations practices, the sales gains documented in our field experiments may be more representative of the gains achievable by first movers in the social or environmental responsibility domains. As more firms engage in such practices in the future, the effects may be weakened, or perhaps, engaging in such practices will become a competitive necessity in that not doing so will be perceived as a liability among consumers. Moreover, the marketing literature on "brand loyalty" and "usage dominance" implies that an initial gain in market share may translate into a persistent market share advantage (Guadagni and Little 1983, Deighton et al. 1994, Villas-Boas 2004). Ongoing research in this space, therefore, can investigate and document these changing dynamics as more firms begin to shift their practices in the direction of social and environmental responsibility, and the expectations and purchase behaviors of consumers evolve.

Third, our experiments were conducted in collaboration with a collegiate bookstore and a grocery retailer, both located in the Southeastern United States, and involved two products, collegiate apparel and coffee. Customers of those retail stores and who purchase those products may not be representative of the broader population in terms of their general preferences and sustainability concerns. Although we note our results in Study 3 demonstrate that transparency into socially and environmentally responsible operations

can increase purchase intentions holding constant one's commitment to social and environmental concerns, it will nevertheless be important to examine the extent to which our field results may be generalized to other retailers, products, and consumer groups, potentially in different geographic regions.

Finally, we held the prices of Alta Gracia and Counter Culture Coffee products stable throughout our field experiments and only manipulated the transparency condition observed by customers. Maintaining uniform prices enabled us to measure consumer responses to transparency without confounding our investigation with the signaling effects of price. Given that firms are only recently starting to explore the connection between responsible operations practices and consumer purchase behavior, and the evidence for consumer willingness to pay for responsible products is mixed (Pigors and Rockenbach 2016 and references therein), our work is a necessary first step in evaluating how firms can differentiate themselves through transparency into their responsible operations. As both consumer and firm preferences for responsibility initiatives mature however, it will be valuable to analyze consumer willingness to pay for responsibility initiatives as well.

Although considerable work remains to be done to continue to understand these evolving dynamics, the present results hold promise by providing evidence of consumers' willingness to reward firms for transparently engaging in socially and environmentally responsible operations practices. By doing right by their people and the planet, organizations stand to improve their own internal performance while being rewarded for creating differentiated value for consumers – an approach to business that aligns the interests of owners, employees, customers, and society.

References

- Adler-Milstein, S., J. M. Kline. 2017. *Sewing Hope: How One Factory Challenges the Apparel Industry's Sweatshops*. University of California Press.
- Aktar, I. 2011. Voluntary Disclosure of Negative Information in Corporate Communication. Doctoral Thesis, Universitat Pompeu Fabra.
- Alta Gracia. 2019. <https://altagraciaapparel.com/our-story>.
- Amazon.com. 2018. <https://www.amazon.com/NIKE-ColorDry-Mens-Polo/dp/B07CRJ3KWW>.
- Anderson, R. C., E. N. Hansen. 2004. Determining Consumer Preferences for Ecolabeled Forest Products: An Experimental Approach. *Journal of Forestry*, 102(June), 28-32.
- Arnot, C., P. C. Boxall, S. Cash. 2006. Do Ethical Consumers Care About Price? A Revealed Preference Analysis of Fair Trade Coffee Purchases. *Canadian Journal of Agricultural Economics*, 54, 555-565.
- Auger, P., T. M. Devinney. 2007. Do What Consumers Say Matter? The Misalignment of Preferences with Unconstrained Ethical Intentions. *Journal of Business Ethics* 76, 361-383.
- Blanco, C., F. Caro, C. J. Corbett. 2017. Operational Response to Climate Change: Are Carbon Abatement Projects Becoming Less Profitable Over Time? Working Paper, UCLA.
- Buell, R.W., S. Mariadassou, Y. Zheng. 2019. Relative Performance Transparency: Effects on Sustainable Choices. Working Paper, Harvard Business School, Boston, MA.
- Buell, R.W., T. Kim, C-J. Tsay. 2016. Creating Reciprocal Value Through Operational Transparency. *Management Science*. 63(6): 1673-1695.
- Buell, R.W., M.I. Norton. 2011. The Labor Illusion: How Operational Transparency Increases Perceived Value. *Management Science*, 57(9), 1564-1579.
- Buhrmester, M., T. Kwang, S.D. Gosling. 2011. Amazon's Mechanical Turk: A New Source of Inexpensive, Yet High-Quality, Data? *Perspectives on Psychological Science*, 6(1), 3-5.
- Brown, T. J., P. A. Dacin. 1997. The Company and the Product: Corporate Associations and Consumer Product Responses. *Journal of Marketing*, 61(1), 68-84.
- Campbell, M., A. Kirmani. 2000. Consumers' Use of Persuasion Knowledge: The Effects of Accessibility and Cognitive Capacity on Perceptions of an Influence Agent. *Journal of Consumer Research*, 27(1), 69-83.
- Caro, F., P. Chintapalli, K. Rajaram, C.S. Tang. 2017. Improving Supplier Compliance Through Joint and Shared Audits with Collective Penalty. Forthcoming in *M&SOM*.
- Chaudhuri, A., M.B. Holbrook. 2001. The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty. *Journal of Marketing*, 65(2), 81-93.
- Chen, L., H.L. Lee. 2017. Sourcing Under Supplier Responsibility Risk: The Effects of Certification, Audit, and Contingency Payment. *Management Science*, 63(9), 2795-2812.

- Clelland, I. J., T. J. Dean, T. J. Douglas. 2000. Stepping Towards Sustainable Business: An Evaluation of Waste Minimization Practices in US Manufacturing. *Interfaces*, 30(3), 107-124.
- Dal Bo, E., F. Finan, M. A. Rossi. 2013. Strengthening State Capabilities: The Role of Financial Incentives in the Call to Public Service. *Quarterly Journal of Economics*, 128(3), 1169-1218.
- De Neve, J.-E., C. Krekel, G. Ward. 2019. Employee Wellbeing, Productivity and Firm Performance. Working Paper, Centre for Economic Performance, LSE.
- Deighton, J., C.M. Henderson, S.A. Neslin. 1994. The Effects of Advertising on Brand Switching and Repeat Purchasing. *Journal of Marketing Research*, 31(1), 28-43.
- Du, S., C.B. Bhattacharya, S. Sen. 2011. Corporate Social Responsibility and Competitive Advantage: Overcoming the Trust Barrier. *Management Science*, 57(9), 1528-1545.
- Dube, A., S. Naidu, M. Reich. 2007. The Economic Effects of a Citywide Minimum Wage. *Industrial and Labor Relations Review*, 60(4), 522-43.
- Ellen, P.S., L.A. Mohr, D.J. Webb. 2000. Charitable Programs and the Retailer: Do They Mix? *Journal of Retailing*, 76(3), 393-406.
- Ellen, P.S., D.J. Webb, L.A. Mohr. 2006. Building Corporate Associations: Consumer Attributions for Corporate Socially Responsible Programs. *Journal of the Academy of Marketing Science*, 34(2), 147-157.
- Guadagni, P.M., J. Little. 1983. A Logit Model of Brand Choice Calibrated on Scanner Data. *Marketing Science*, 2(3), 203-238.
- Guo, R., H.L. Lee, R. Swinney. 2016. Responsible Sourcing in Supply Chains. *Management Science*, 62(9), 2722-2744.
- Hainmueller, J., M. J. Hiscox, S. Sequeira. 2015. Consumer Demand for the Fair Trade Label: Evidence from a Multi-Store Field Experiment. *Review of Economics and Statistics*. 97(2), 242-256.
- Hiscox, M. J., N. Smyth. 2006. Is There Consumer Demand for Improved Labor Standards? Evidence from Field Experiments in Social Product Labeling. Working Paper, Harvard University.
- Kalkanci, B., E. Ang, E.L. Plambeck. 2016. Strategic Disclosure of Social and Environmental Impacts in a Supply Chain. Chapter 13 in *Environmentally Responsible Supply Chains*, A. Atasu, eds, Springer.
- Kalkanci, B., E.L. Plambeck. 2018a. Managing Supplier Social & Environmental Impacts with Voluntary vs. Mandatory Disclosure to Investors. Forthcoming in *Management Science*.
- Kalkanci, B., E.L. Plambeck. 2018b. Reveal the Supplier List? A Trade-off in Capacity vs. Responsibility. Forthcoming in *M&SOM*.
- King, A., M. Lenox. 2002. Exploring the Locus of Profitable Pollution Reduction. *Management Science*, 48(2), 289-299.
- Klassen, R. D., D. C. Whybark. 1999. The Impact of Environmental Technologies on Manufacturing Performance. *Academy of Management Journal*, 42(6), 599-615.

- Kolk, A., J. Pinkse. 2004. Market Strategies for Climate Change. *European Management Journal*, 22(3), 304-314.
- Korosec, K. 2013. Nike's Waterless Dye Factory Cuts Energy Use 60%. *Environmental Leader*, December 3.
- Kraft, T., L. Valdes, Y. Zheng. 2018. Supply Chain Visibility and Social Responsibility: Investigating Consumers' Behaviors and Motives. *M&SOM*, 20(4), 617-636.
- Lee, H.L., K. O'Marah., G. John. 2012. The Chief Supply Chain Officer Report 2012. SCM World.
- Mason, W., S. Suri. 2012. Conducting Behavioral Research on Amazon's Mechanical Turk. *Behavior Research Methods*, 44(1), 1-23.
- Mohan, B., R.W. Buell, L. John. 2019. Lifting the Veil: The Benefits of Cost Transparency. Working Paper, Harvard Business School, Boston, MA.
- McKinsey. 2007. Shaping the New Rules of Competition: UN Global Compact Participant Mirror.
- Nyilasy, G., Gangadharbatla, H., A. Paladino. 2014. Perceived Greenwashing: The Interactive Effects of Green Advertising and Corporate Environmental Performance on Consumer Reactions. *Journal of Business Ethics* 125(4), 693-707.
- O'Rourke, D., A. Ringer. 2015. The Impact of Sustainability Information on Consumer Decision Making. *Journal of Industrial Ecology*, 20(4), 882-892.
- Peloza, J., J. Shang. 2011. How Can Corporate Social Responsibility Activities Create Value for Stakeholders? A Systematic Review. *Journal of the Academy of Marketing Science*, 39:117-135.
- Pigors, M., B. Rockenbach. 2016. Consumer Social Responsibility. *Management Science*, 62(11), 3123-3137.
- Plambeck, E.L., T. Taylor. 2016. Supplier Evasion of a Buyer's Audit: Implications for Motivating Supplier Social and Environmental Responsibility. *M&SOM*, 18(2), 184-197.
- Porteous, A., S. Rammohan. 2013. Integration. Incentives and Innovation: Nike's Strategy to Improve Social and Environmental Conditions in its Global Supply Chain. Working Paper, Stanford University Global Management Supply Chain Forum, Stanford, CA.
- Porter, M. E., M. R. Kramer. 2011. Creating Shared Value. *Harvard Business Review*, January-February 2011.
- Prasad, M., H. Kimeldorf, R. Meyer, I. Robinson. 2004. Consumers of the World Unite: A Market-Based Response to Sweatshops. *Labor Studies Journal*, 29(3), 57-80.
- Rajaram, K., C. Corbett. 2002. Achieving Environmental and Productivity Improvements Through Model-Based Process Redesign. *Operations Research*, 50(5), 751-763.
- Rangan, K., L. A. Chase, S. Karim. 2012. Why Every Company Needs a CSR Strategy and How to Build It. Working Paper, Harvard Business School.

Rusinko, C. A. 2007. Green Manufacturing: An Evaluation of Environmentally Sustainable Manufacturing Practices and Their Impact on Competitive Outcomes. *IEEE Transactions on Engineering Management*, 54(3), 445-454.

Saks, A. M. 2006. Antecedents and Consequences of Employee Engagement. *Journal of Managerial Psychology*, 21(7), 600-619,

Sen, S., C.B. Bhattacharya. 2001. Does Doing Good Always Lead to Doing Better? Consumer Reactions to Corporate Social Responsibility. *Journal of Marketing Research*, 38(2), 225-243.

Sen, S., C.B. Bhattacharya, D. Korschun. 2006. The Role of Corporate Social Responsibility in Strengthening Multiple Stakeholder Relationships: A Field Experiment. *Journal of the Academy of Marketing Science*, 34(2), 158-166.

Tully, S. M., R. S. Winter. 2014. The Role of the Beneficiary in Willingness to Pay for Socially Responsible Products: A Meta-analysis. *Journal of Retailing*, 90(2), 255-274.

UN Global Compact & EY 2016. The State of Sustainable Supply Chains: Building Responsible and Resilient Supply Chains.

Villas-Boas, J.M., 2004. Consumer Learning, Brand Loyalty and Competition. *Marketing Science*, 23(1), 134-145.

Visser, W. 2017. Introduction in the World Guide to Sustainable Enterprise: Volume 4: the Americas, edited by W. Visser.

Webb, D.J., L.A. Mohr. 1998. A Typology of Consumer Responses to Cause- Related Marketing: From Skeptics to Socially Concerned. *Journal of Public Policy and Marketing*, 17(2), 226-238.

Williams, J. C., S. J. Lambert, S. Kesavan, P. J. Fugiel, L. A. Ospina, E. D. Rapoport, M. Jarpe, D. Bellisle, P. Pendem, L. McCorkell, S. Adler-Milstein. 2018. Stable Scheduling Increases Productivity And Sales. The Stable Scheduling Study.

Yellen, J. L. 1984. Efficiency Wage Models of Unemployment. *American Economic Review*, 74(2), 200-205.

Yoon, Y., Z. Gurhan-Canli, N. Schwarz. 2006. The Effects of Corporate Social Responsibility (CSR) Activities on Companies with Bad Reputations. *Journal of Consumer Psychology*, 16(4), 377-390.

Appendix

Transcripts of video stimuli used in Study 1

Brand imagery video. 48 seconds, viewable online at: <https://bit.ly/2TwT4KJ>

The video opens with the Alta Gracia logo, projected over the Dominican countryside. The video progresses by showing clips of a field, houses on a hill, pink flowers blowing in the wind, people manually tending crops, bananas in the back of a pickup truck, a billowing Dominican Republic flag, and a man sitting at a bus stop in Villa Altagracia in the evening. The video closes with an image of palm fronds blowing in the wind, with the Alta Gracia logo projected over them.

External transparency video. 49 seconds, viewable online at: <https://bit.ly/2YnbbX9>

The video opens with the Alta Gracia logo, projected over the Dominican countryside. Text on the screen explains, “We support the community around our factory. We spend an extra 39% of our profit per t-shirt to support the community around our factory in the Dominican Republic.” The video progresses by showing people manually tending crops. A man narrates, in Spanish, with a subtitled English translation: “The change my family has had, and our way of living, is very special.” The video continues by showing a woman cooking in her kitchen. She narrates, in Spanish with English subtitles, “And now in my home I love to cook something good for my kids. They are very happy.” The video shows images of smiling children, and kids playing in the village. Donnie Hodge, the CEO of Alta Gracia, narrates, “We put 8 million into that local community since we started Alta Gracia. It’s the community at large that’s benefiting.” The video closes with an image of palm fronds blowing in the wind, with the Alta Gracia logo projected over them.

Internal transparency video. 53 seconds, viewable online at: <https://bit.ly/2Fvko6O>

The video opens with the Alta Gracia logo, projected over the Dominican countryside. Text on the screen explains, “We pay a living wage to our workers. We spend an extra 39% of our profit per t-shirt to pay a living wage to our workers in the Dominican Republic.” The video progresses by showing people working in an Alta Gracia factory. A man narrates, in Spanish, with a subtitled English translation: “For me, working for Alta Gracia has been a change from earth to heaven. My salary before was very low.” The video continues by showing the faces of people working in the factory, and cuts to a woman. She narrates, in Spanish with English subtitles, “When I received my first paycheck, I couldn’t believe it.” The video shows images of smiling children, and kids playing in the village. Donnie Hodge, the CEO of Alta Gracia, narrates, “We put 8 million into that local community since we started Alta Gracia. Our core mission is really respect for the workers, and part of that is pay them a living wage, and I think a lot of times, if I don’t do it, who will?” The video closes with an image of palm fronds blowing in the wind, with the Alta Gracia logo projected over them.

Transcripts of video stimuli used in Study 2

Brand imagery video. 37 seconds, viewable online at: <https://bit.ly/2TVxa8T>

The video opens with the Counter Culture Coffee logo, projected over red and green coffee fruit being hand-harvested by workers. The video progresses by showing a woman receiving a bags of coffee beans and roasting them, a machine processing the coffee beans, and a woman shoveling chaff from the process. The next scene shows cups of coffee being prepared and sampled, and Counter Culture Coffee being bagged and brewed. The video closes with an overhead shot of a coffee mug filled with coffee, and the Counter Culture Coffee logo projected over the top.

External transparency video. 37 seconds, viewable online at: <https://bit.ly/2HQQ9dt>

The video opens with the Counter Culture Coffee logo, projected over red and green coffee fruit being hand-harvested by workers. Meredith Taylor, the company's Sustainability Manager narrates, and subtitles appear on the screen, "At Counter Culture Coffee, we value environmental sustainability." The video progresses by showing a machine processing the coffee beans, while the narration continues, "Each year, we hold a company-wide volunteer day, giving everyone who works at Counter Culture the chance to do hands-on work like cleaning up creeks, removing invasive species, and planting trees." The video shows employees engaged in several hands-on projects, working with the soil, and planting trees. The narration continues, "We focus our efforts on organizations that work on sustainability projects and environmental conservation." The next scene shows cups of coffee being prepared, sampled, and brewed while the narration continues, "For us, this is a day to spend giving back becoming more connected to the places that we work and live, and putting our values into action." The video closes with an overhead shot of a coffee mug filled with coffee, and the Counter Culture Coffee logo projected over the top.

Internal transparency video. 37 seconds, viewable online at: <https://bit.ly/2TUJEOa>

The video opens with the Counter Culture Coffee logo, projected over red and green coffee fruit being hand-harvested by workers. Meredith Taylor, the company's Sustainability Manager narrates, and subtitles appear on the screen, "At Counter Culture Coffee, we value environmental sustainability." The video shows hands working with soil and plants, while the narration continues. "To us, being a responsible company means working to minimize our impact as much as possible." The video progresses by showing a machine processing the coffee beans, and a woman shoveling chaff from the process. The narration continues, "For example, we compost all of the chaff from our roasting process, saving about 170 pounds from the landfill each week, and instead turning it into valuable garden compost." The next scene shows cups of coffee being prepared, sampled, and brewed while the narration continues, "Sustainability has always been at the core of what we do. And even if no one knew what we were doing, we'd still do it." The video closes with an overhead shot of a coffee mug filled with coffee, and the Counter Culture Coffee logo projected over the top.

	(1)	(2)	(3)	(4)	(5)
	Favorability	Trust	Corporate ability	Altruism	Self-servingness
Favorability	0.771	0.361	0.355	0.190	
Positivity	0.774	0.385	0.339	0.184	
Goodness	0.728	0.412	0.373	0.192	-0.107
Likability	0.794	0.358	0.329	0.185	
Trust	0.407	0.717	0.254	0.259	
Rely	0.349	0.698	0.263	0.335	
Honest	0.411	0.732	0.255	0.270	
Safe	0.300	0.726	0.352		0.106
Manufacturing ability	0.293	0.468	0.664		
Technical innovativeness	0.299	0.132	0.758	0.303	
Product quality	0.320	0.463	0.689		
Customer service	0.334	0.279	0.713	0.150	
Product range	0.180	0.159	0.803	0.241	
Mostly for others	0.115	0.185	0.255	0.841	
Gains for others	0.460	0.252	0.133	0.676	
Gains for self					0.903
Partly for others					0.906
Attractive employer	0.595	0.348	0.404	0.284	
Cares about environment	0.475	0.520	0.265	0.401	
Cares about social causes	0.479	0.513	0.257	0.445	-0.122
Eigenvalue	4.365	3.950	3.841	2.179	1.726
Chronbach's Alpha	0.967	0.915	0.905	0.751	0.795

Table A1: Confirmatory factor analysis of items included in Study 3. Bolded factor loadings above exceed a cutoff of 0.66, which was used to delineate items that corresponded with particular constructs. Results demonstrate the distinct validity of the multi-item constructs included in the analysis for Study 3, which included favorability ($\alpha=0.97$), trust ($\alpha=0.92$), corporate ability ($\alpha=0.91$), altruism ($\alpha=0.75$), and self-servingness ($\alpha=0.80$).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Willingness to buy	Favorability	Trust	Corporate ability	Social cause sincerity	Attractive employer	Altruism	Self-servingness	Credibility
External transparency	0.671** [0.279]	0.960*** [0.172]	0.451** [0.190]	0.558*** [0.164]	1.130*** [0.215]	1.097*** [0.202]	1.216*** [0.210]	-0.194 [0.217]	-0.159 [0.227]
Internal transparency	0.745*** [0.263]	0.912*** [0.177]	0.575*** [0.190]	0.607*** [0.163]	1.339*** [0.237]	1.346*** [0.222]	1.565*** [0.236]	-0.068 [0.207]	0.028 [0.219]
Female indicator	-0.006 [0.205]	-0.117 [0.146]	-0.151 [0.149]	0.019 [0.135]	0.107 [0.175]	0.127 [0.185]	-0.084 [0.178]	-0.467** [0.191]	-0.288 [0.176]
Age	-0.022 [0.030]	-0.076*** [0.023]	-0.027 [0.024]	-0.037 [0.024]	-0.048 [0.035]	-0.064* [0.036]	-0.045 [0.028]	0.031 [0.026]	-0.007 [0.032]
Age ²	0.000 [0.000]	0.001*** [0.000]	0.000 [0.000]	0.000 [0.000]	0.000 [0.000]	0.001 [0.000]	0.000 [0.000]	-0.000 [0.000]	0.000 [0.000]
Education level									
High school graduate	-0.559 [0.408]	-0.625** [0.282]	0.077 [0.285]	-0.070 [0.257]	-0.623* [0.336]	-0.102 [0.424]	-1.603*** [0.308]	2.150*** [0.354]	-1.464*** [0.339]
Some college	-0.437 [0.379]	-0.987*** [0.298]	-0.536* [0.302]	-0.616** [0.244]	-1.554*** [0.358]	-0.372 [0.382]	-1.857*** [0.335]	2.185*** [0.421]	-2.026*** [0.346]
College graduate	0.123 [0.356]	-0.787** [0.320]	-0.034 [0.311]	-0.262 [0.221]	-1.097*** [0.371]	-0.336 [0.392]	-1.902*** [0.354]	2.485*** [0.372]	-1.764*** [0.330]
Postgraduate/ professional	-0.406 [0.429]	-0.933*** [0.352]	-0.006 [0.370]	-0.431* [0.258]	-1.123*** [0.400]	-0.319 [0.422]	-1.700*** [0.361]	2.718*** [0.425]	-1.947*** [0.415]
Annual household income									
\$26,000 to 49,000	0.539 [0.365]	0.252 [0.276]	0.603** [0.294]	0.431 [0.266]	0.626** [0.313]	0.573 [0.361]	0.436 [0.303]	-0.141 [0.294]	0.253 [0.322]
\$50,000 to 99,000	0.390 [0.346]	0.265 [0.276]	0.418 [0.290]	0.373 [0.265]	0.386 [0.316]	0.620* [0.339]	0.397 [0.320]	-0.402 [0.268]	0.225 [0.324]
\$100,000 to 149,000	0.531 [0.420]	0.209 [0.333]	0.335 [0.326]	0.317 [0.311]	0.342 [0.349]	0.586 [0.427]	0.503 [0.398]	-0.276 [0.364]	0.231 [0.372]
\$150,000 or more	0.260 [0.516]	-0.067 [0.452]	0.014 [0.451]	-0.053 [0.346]	-0.443 [0.724]	0.273 [0.595]	0.196 [0.579]	1.014* [0.543]	0.096 [0.649]
Concern for social issues									
Slightly important	1.303** [0.591]	1.492*** [0.422]	1.176*** [0.419]	1.335*** [0.375]	1.406*** [0.452]	1.295** [0.542]	0.808 [0.497]	-0.871** [0.375]	0.868* [0.517]
Moderately important	1.968*** [0.523]	1.657*** [0.409]	1.336*** [0.388]	1.509*** [0.365]	1.687*** [0.417]	1.407** [0.541]	0.959** [0.464]	-0.756** [0.334]	1.084** [0.453]
Very important	2.492*** [0.511]	2.047*** [0.394]	1.635*** [0.385]	1.851*** [0.360]	1.989*** [0.423]	1.905*** [0.532]	1.314*** [0.458]	-0.639** [0.304]	1.410*** [0.448]
Extremely important	2.859*** [0.557]	2.505*** [0.425]	2.170*** [0.420]	2.497*** [0.393]	2.806*** [0.445]	2.555*** [0.545]	2.067*** [0.475]	-0.726* [0.392]	1.536*** [0.488]
Constant	2.389** [1.045]	4.921*** [0.795]	3.269*** [0.839]	3.412*** [0.747]	3.729*** [1.081]	3.612*** [1.107]	4.731*** [0.896]	2.988*** [0.959]	5.943*** [1.029]
Observations	210	210	210	210	210	210	210	210	210
R-squared	0.268	0.358	0.266	0.341	0.349	0.316	0.335	0.124	0.123

Table A2: Willingness-to-buy and consumer attitudes towards the brand in the social domain (Study 3). Robust standard errors are shown in brackets. *, **, and ***, signify significance at the 10%, 5%, and 1% levels respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Willingness to buy	Favorability	Trust	Corporate ability	Env. cause sincerity	Attractive employer	Altruism	Self-servingness	Credibility
External transparency	0.501* [0.264]	1.100*** [0.170]	0.827*** [0.181]	0.704*** [0.151]	1.440*** [0.206]	1.197*** [0.198]	1.414*** [0.221]	0.004 [0.188]	0.202 [0.196]
Internal transparency	0.575** [0.258]	1.031*** [0.153]	0.644*** [0.172]	0.834*** [0.146]	1.455*** [0.188]	1.276*** [0.171]	1.213*** [0.213]	-0.018 [0.190]	0.181 [0.195]
Female indicator	-0.003 [0.191]	-0.041 [0.132]	-0.097 [0.139]	0.019 [0.115]	-0.159 [0.165]	0.047 [0.154]	0.045 [0.165]	-0.230 [0.159]	-0.165 [0.151]
Age	0.012 [0.051]	-0.017 [0.039]	-0.030 [0.043]	-0.053 [0.034]	-0.047 [0.044]	-0.053 [0.043]	-0.011 [0.048]	0.069 [0.051]	0.011 [0.044]
Age ²	-0.000 [0.001]	0.000 [0.000]	0.000 [0.000]	0.001 [0.000]	0.000 [0.000]	0.001 [0.000]	0.000 [0.001]	-0.001 [0.001]	-0.000 [0.001]
Education level									
High school graduate	-0.649 [0.413]	-0.183 [0.279]	-1.054*** [0.289]	0.125 [0.234]	-0.668** [0.305]	-0.937*** [0.343]	-0.495 [0.311]	-0.886** [0.346]	-0.712** [0.304]
Some college	-0.716** [0.314]	-0.249 [0.212]	-1.189*** [0.208]	-0.059 [0.181]	-0.986*** [0.251]	-0.914*** [0.261]	-0.548** [0.235]	-0.992*** [0.265]	-0.853*** [0.234]
College graduate	-0.521* [0.302]	-0.179 [0.217]	-1.033*** [0.214]	0.147 [0.180]	-1.134*** [0.241]	-0.978*** [0.262]	-0.583** [0.231]	-0.592** [0.233]	-0.741*** [0.226]
Postgraduate/ professional	-0.592 [0.377]	-0.301 [0.263]	-0.822*** [0.270]	0.069 [0.226]	-1.223*** [0.317]	-0.881*** [0.293]	-0.419 [0.310]	-0.633* [0.323]	-0.629** [0.295]
Annual household income									
\$26,000 to 49,000	0.268 [0.266]	0.139 [0.205]	0.315 [0.218]	0.130 [0.177]	0.196 [0.254]	0.107 [0.254]	0.065 [0.239]	0.018 [0.233]	-0.068 [0.226]
\$50,000 to 99,000	-0.045 [0.263]	0.032 [0.180]	0.073 [0.187]	-0.040 [0.168]	0.170 [0.218]	0.134 [0.218]	-0.168 [0.219]	-0.247 [0.204]	-0.215 [0.185]
\$100,000 to 149,000	-0.091 [0.392]	0.050 [0.261]	0.107 [0.271]	-0.162 [0.232]	0.208 [0.300]	0.046 [0.316]	0.026 [0.283]	-0.293 [0.338]	-0.100 [0.273]
\$150,000 or more	0.721 [0.499]	0.148 [0.396]	0.040 [0.293]	-0.019 [0.270]	0.207 [0.498]	0.093 [0.383]	-0.143 [0.480]	0.038 [0.385]	0.053 [0.289]
Concern for env. issues									
Slightly important	-0.051 [0.534]	0.826** [0.407]	1.062** [0.446]	0.679** [0.339]	0.931* [0.485]	0.451 [0.449]	0.261 [0.438]	0.189 [0.448]	1.319*** [0.489]
Moderately important	0.708 [0.515]	1.055*** [0.393]	1.088** [0.421]	0.906*** [0.318]	1.198*** [0.438]	0.665 [0.422]	0.968** [0.403]	0.049 [0.441]	1.288*** [0.460]
Very important	1.107** [0.490]	1.281*** [0.378]	1.206*** [0.417]	1.130*** [0.317]	1.222*** [0.427]	0.943** [0.404]	0.930** [0.396]	-0.056 [0.426]	1.183** [0.457]
Extremely important	1.459*** [0.505]	1.393*** [0.406]	1.366*** [0.443]	1.383*** [0.328]	1.408*** [0.462]	1.216*** [0.428]	1.062** [0.423]	0.374 [0.441]	1.383*** [0.480]
Constant	3.674*** [1.243]	3.712*** [1.085]	4.674*** [1.123]	4.079*** [0.954]	4.457*** [1.182]	5.116*** [1.234]	3.321*** [1.163]	4.210*** [1.215]	4.742*** [1.176]
Observations	286	286	286	286	286	286	286	286	286
R-squared	0.139	0.199	0.136	0.203	0.204	0.184	0.196	0.064	0.071

Table A3: Willingness-to-buy and consumer attitudes towards the brand in the environmental domain (Study 3). Robust standard errors are shown in brackets. *, **, and ***, signify significance at the 10%, 5%, and 1% levels respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	Willingness to buy	Willingness to buy	Willingness to buy	Willingness to buy	Willingness to buy	Willingness to buy
Favorability	0.897*** [0.075]					
Trust		0.870*** [0.075]				
Corporate ability			0.837*** [0.085]			
Social cause sincerity				0.573*** [0.073]		
Attractive employer					0.570*** [0.089]	
Altruism						0.452*** [0.071]
External transparency	-0.190 [0.236]	0.279 [0.225]	0.204 [0.241]	0.023 [0.257]	0.045 [0.262]	0.122 [0.282]
Internal transparency	-0.073 [0.204]	0.245 [0.202]	0.237 [0.227]	-0.023 [0.249]	-0.022 [0.270]	0.038 [0.264]
Female indicator	0.100 [0.156]	0.126 [0.155]	-0.022 [0.172]	-0.067 [0.178]	-0.078 [0.175]	0.032 [0.193]
Age	0.046* [0.025]	0.001 [0.025]	0.009 [0.027]	0.006 [0.027]	0.015 [0.034]	-0.001 [0.029]
Age ²	-0.000** [0.000]	-0.000 [0.000]	-0.000 [0.000]	-0.000 [0.000]	-0.000 [0.000]	0.000 [0.000]
Education level						
High school graduate	0.001 [0.341]	-0.626* [0.335]	-0.500 [0.340]	-0.202 [0.336]	-0.501 [0.364]	0.165 [0.384]
Some college	0.448 [0.312]	0.029 [0.279]	0.079 [0.326]	0.454 [0.340]	-0.225 [0.328]	0.402 [0.367]
College graduate	0.828** [0.331]	0.152 [0.302]	0.342 [0.320]	0.752** [0.301]	0.315 [0.326]	0.982*** [0.345]
Postgraduate/ professional	0.430 [0.351]	-0.401 [0.344]	-0.045 [0.376]	0.238 [0.365]	-0.224 [0.376]	0.362 [0.402]
Annual household income						
\$26,000 to 49,000	0.313 [0.244]	0.014 [0.235]	0.178 [0.272]	0.180 [0.298]	0.212 [0.280]	0.342 [0.325]
\$50,000 to 99,000	0.152 [0.222]	0.027 [0.224]	0.077 [0.252]	0.169 [0.288]	0.036 [0.252]	0.211 [0.295]
\$100,000 to 149,000	0.343 [0.334]	0.239 [0.327]	0.265 [0.331]	0.335 [0.361]	0.197 [0.387]	0.304 [0.377]
\$150,000 or more	0.320 [0.345]	0.248 [0.384]	0.305 [0.509]	0.514 [0.491]	0.105 [0.377]	0.171 [0.461]
Concern for social issues						
Slightly important	-0.034 [0.547]	0.280 [0.555]	0.186 [0.491]	0.497 [0.496]	0.565 [0.593]	0.938* [0.549]
Moderately important	0.482 [0.462]	0.806* [0.469]	0.704* [0.401]	1.001** [0.418]	1.165** [0.551]	1.534*** [0.493]
Very important	0.656 [0.473]	1.069** [0.476]	0.941** [0.430]	1.351*** [0.426]	1.405** [0.564]	1.898*** [0.490]
Extremely important	0.612 [0.527]	0.971* [0.528]	0.768 [0.510]	1.250** [0.481]	1.401** [0.619]	1.925*** [0.546]
Constant	-2.023** [0.825]	-0.454 [0.790]	-0.468 [0.841]	0.251 [0.879]	0.329 [0.990]	0.252 [1.002]
Observations	210	210	210	210	210	210
R-squared	0.562	0.568	0.486	0.455	0.459	0.378

Table A4: The mediating effects of differential consumer attitudes on willingness to buy in the social domain (Study 3). Robust standard errors are shown in brackets. *, **, and ***, signify significance at the 10%, 5%, and 1% levels respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	Willingness to buy	Willingness to buy	Willingness to buy	Willingness to buy	Willingness to buy	Willingness to buy
Favorability	0.857*** [0.063]					
Trust		0.789*** [0.072]				
Corporate ability			0.905*** [0.076]			
Env. cause sincerity				0.495*** [0.067]		
Attractive employer					0.709*** [0.071]	
Altruism						0.419*** [0.070]
External transparency	-0.442* [0.230]	-0.152 [0.215]	-0.136 [0.235]	-0.211 [0.266]	-0.348 [0.239]	-0.091 [0.264]
Internal transparency	-0.308 [0.229]	0.067 [0.220]	-0.179 [0.240]	-0.145 [0.262]	-0.330 [0.250]	0.067 [0.265]
Female indicator	0.033 [0.152]	0.074 [0.151]	-0.020 [0.155]	0.076 [0.172]	-0.036 [0.152]	-0.022 [0.181]
Age	0.027 [0.041]	0.036 [0.041]	0.060 [0.040]	0.035 [0.044]	0.050 [0.040]	0.017 [0.044]
Age ²	-0.000 [0.000]	-0.000 [0.000]	-0.001 [0.000]	-0.000 [0.001]	-0.001 [0.000]	-0.000 [0.000]
Education level						
High school graduate	-0.492 [0.319]	0.182 [0.331]	-0.762** [0.348]	-0.318 [0.367]	0.016 [0.347]	-0.442 [0.384]
Some college	-0.503** [0.247]	0.222 [0.266]	-0.663*** [0.247]	-0.228 [0.295]	-0.068 [0.248]	-0.486 [0.298]
College graduate	-0.368 [0.235]	0.293 [0.233]	-0.654*** [0.240]	0.039 [0.266]	0.172 [0.231]	-0.277 [0.282]
Postgraduate/ professional	-0.335 [0.285]	0.056 [0.313]	-0.655** [0.303]	0.013 [0.332]	0.032 [0.292]	-0.417 [0.339]
Annual household income						
\$26,000 to 49,000	0.149 [0.202]	0.020 [0.205]	0.150 [0.222]	0.171 [0.231]	0.193 [0.210]	0.241 [0.249]
\$50,000 to 99,000	-0.072 [0.213]	-0.102 [0.222]	-0.008 [0.221]	-0.129 [0.242]	-0.140 [0.234]	0.026 [0.247]
\$100,000 to 149,000	-0.134 [0.318]	-0.176 [0.292]	0.056 [0.311]	-0.194 [0.343]	-0.123 [0.314]	-0.102 [0.377]
\$150,000 or more	0.594* [0.309]	0.689* [0.370]	0.738* [0.396]	0.619* [0.362]	0.655* [0.370]	0.781* [0.455]
Concern for environmental issues						
Slightly important	-0.758* [0.432]	-0.889* [0.475]	-0.666 [0.448]	-0.512 [0.518]	-0.371 [0.469]	-0.160 [0.508]
Moderately important	-0.196 [0.413]	-0.151 [0.454]	-0.112 [0.436]	0.115 [0.504]	0.236 [0.436]	0.302 [0.501]
Very important	0.010 [0.400]	0.156 [0.447]	0.084 [0.422]	0.503 [0.490]	0.439 [0.429]	0.718 [0.475]
Extremely important	0.266 [0.397]	0.383 [0.447]	0.208 [0.440]	0.763 [0.495]	0.598 [0.431]	1.015** [0.482]
Constant	0.494 [0.940]	-0.012 [0.929]	-0.018 [0.961]	1.470 [1.033]	0.047 [0.956]	2.283*** [1.093]
Observations	286	286	286	286	286	286
R-squared	0.462	0.441	0.417	0.298	0.440	0.249

Table A5: The mediating effects of differential consumer attitudes on willingness to buy in the environmental domain (Study 3). Robust standard errors are shown in brackets. *, **, and ***, signify significance at the 10%, 5%, and 1% levels respectively.

Survey Questions from Study 3

1. Given the opportunity, how likely is it that you would purchase this product? (Not at all likely (1)-Extremely likely (7))
2. In reference to Gracia's initiative described on the hang tag above, to what extent do you disagree or agree with the following statements? (Strongly disagree (1)-Strongly agree (7))
 - Gracia has this initiative to achieve gains for itself.
 - Gracia has this initiative to achieve gains mostly for itself and partly for others.
 - Gracia has this initiative to achieve gains mostly for others and partly for itself.
 - Gracia has this initiative to achieve gains for others.
3. Please select the extent to which you agree with the following statements about Gracia. (Strongly disagree (1)-Strongly agree (7))
 - I would trust Gracia,
 - I would rely on Gracia.
 - Gracia is an honest brand.
 - Gracia produces safe products.
 - Gracia sincerely cares about environmental sustainability.
 - Gracia sincerely cares about social sustainability.
 - I believe the information provided by Gracia is correct.
4. Gracia is:
 - Extremely unfavorable (1)-Extremely favorable (7)
 - Extremely negative (1)-Extremely positive (7)
 - Extremely bad (1)-Extremely good (7)
 - Extremely not likable (1)-Extremely likable (7)
5. Gracia is:
 - A very unattractive employer (1)-A very attractive employer (7)
6. Please rate Gracia on the following dimensions. (Very unfavorable (1)-Very favorable (7))
 - Manufacturing ability
 - Technological innovativeness
 - Product quality
 - Customer service
 - Range of products
7. What kind of initiative did Gracia feature on its hang tag? (Environmental/Social/Political/Data/None of the Above)
8. How concerned are you about the following issues in the production of the products you purchase? (Not at all important (1)-Extremely important (5))
 - Environmental issues
 - Social issues
9. Please enter your age (in years).
10. Are you male or female? (Male/Female)
11. What is your highest level of education? (Some high school / High school graduate / Some college / College graduate / Postgraduate-professional)
12. What is your total yearly household income in U.S. dollars, before taxes? Please include income from wages and salaries, remittances from family members living elsewhere, farming, and all other sources. (\$25,000 or less / \$26,000 to \$49,000 / \$50,000 to \$99,000 / \$100,000 to \$149,000 / \$150,000 or more)