Unlikely Partnerships: Non-Market Strategy and a Positive Theory of Corporate Social Responsibility

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Abstract

Despite growing interest in non-market strategy and corporate social responsibility (CSR), we have few theoretical insights into how firms pursue social objectives. This paper presents a positive theory of how firms work with stakeholder advocates to comply with social mandates for the private provision of public goods, or CSR. We argue that advocates are organized to provide credible advice to firms to make cost-effective investments in highly visible social programs. Our five propositions yield several theoretical implications that are important for strategy scholars, including the conditions under which firms engage in CSR, the type of projects they select, when managers delegate to advocates and consultants, and how this delegation is best organized.

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1　Introduction

In 2008, FedEx Corp. touted a new milestone for its hybrid-electric fleet of trucks: two million miles in service. One section of an otherwise unremarkable press release stood out. FedEx's partner in its efforts was the Environmental Defense Fund (EDF), a persistent critic of corporations and their environmental impact. Such "unlikely partnerships," as EDF President Fred Krupp calls them, are increasingly common. For example, EDF works with Starbucks, Citigroup, McDonald's, and several other large firms. Other activists such as Conservation International and Rainforest Action Network are involved in similar collaborations. In many cases, these partnerships involve the delegation of authority from the corporation to the activist organization in areas related to problem identification and technical assistance.

Why would corporations delegate to advisers that often have opposite strategic goals and different incentives? Despite the increasingly prevalence of collaborations between firms and stakeholders, we have little theoretical insight into why these relationships develop and persist. More broadly, scholars have yet to formulate a general theory of how firms use non-market strategies like these to achieve social objectives. To illustrate, consider a large corporation that is exploring an investment initiative designed to mitigate environmental damage. These kinds of investments, as detailed below, are often discussed under the broad umbrella of corporate social responsibility (CSR) (e.g., see McWilliams and Siegel, 2000; McWilliams et al., 2006; Kitzmueller and Shimshack, 2012), and are economically significant (Chatterji et al 2009). Moreover, analysts maintain that nearly every Fortune 500 company now releases an annual social responsibility report to the public detailing these kind of activities.[1] The precise consequences of a given investment initiative cannot be known with certainty, so the firm seeks guidance from an informed advocate who possesses private, unverifiable information about the impact of the program on important environmental performance measures such as toxic emissions and carbon footprint. If the firm knows the individual is a passionate advocate committed to promoting a sustainable workplace and environment, it would naturally question her motives. Is the advocate's advice a true assessment of the merits of the program, or is it simply meant to advance

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[1]Kanani, Rahim (2012). Forbes.com "The Future of CSR" February 9th, 2012

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her cause? The clear dilemma the firm faces in crafting their non-market strategy (Baron, 2001) is that by relying on the advocate's advice, it becomes vulnerable to manipulation. The advocate may exaggerate the benefits of the program to induce the firm to invest more than is justified. Absent the ability to compensate the advocate for the accuracy of her advice, combating this behavior is difficult. On the other hand, the advocate is well informed and her advice on CSR could be valuable to the firm. How can the firm design a strategy that allows the advocate to commit to offer credible advice?

We argue that this tension is at the heart of non-market strategies firms employ to achieve social objectives, often part of CSR activities related to the natural environment or local community. Firms typically pursue non-market strategies through arms-length relationships, such as hiring outside lobbyists, funding trade associations, or partnering with non-profits. How these partnerships develop and sustain should be one of the foundational questions in this line of inquiry. This paper develops a formal model and 5 propositions to explain these relationships and account for the complex set of actors that underpin non-market strategies specifically related to CSR. More broadly, we explain the conditions under which corporate delegation to a group of advisers organized to promote socially responsible actions can be an optimal choice. We use the umbrella term advisers to refer to both advocates with soft information and technical consultants with hard information. Our propositions yield several theoretical implications that are important for strategy scholars, including the conditions under which firms engage in CSR, the type of projects they select, when managers delegate to advocates and consultants, and how this delegation is best organized.

Traditional analyses of advisory relationships can be divided into two categories, both largely from the economics literature: *delegation* and *strategic communication*.[2] Under delegation, the decision maker commits herself to a specific action associated with each report to induce the advocate to disclose her true information. By contrast, under strategic communication, the decision maker chooses actions that are sequentially rational given the recommendation he receives. This paper explores a third process that we argue is much more applicable for scholars of strategic management, called *organized advocacy*. Under organized advocacy, the firm and advocate agree to a chain of command which commits the advocate to make credible recommendations that the firm finds individually rational to

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[2]For a comprehensive overview of these analyses see Gibbons and Roberts (2013).

follow. We apply this lens in conjunction with insights from prior theoretical and empirical work in strategic management to build a more robust theory of non-market strategy.

Applying this theory to the CSR context helps explain how the organization of advisory relationships allows advocates to influence firms to implement mutually beneficial actions. Specifically, when firms are weighing various options with regards to social responsibility, the right investment often depends on economic and social conditions that are difficult to predict. Technical consultants and environment advocates exist to advise the firm on these choices. Firm staff are fact finders providing verifiable predictions of the right investment. By contrast, the advocate's advice is free but non-verifiable and it is typically biased toward larger investments than the firm requires. Although tempted by free advice, the firm's and the advocate's preferences for investment are misaligned. To rectify this tension, the advocate and the firm organize to determine investment with a three-step process: (i) the advocate observes the optimal intervention and recommends an action, and (ii) the firm implements the recommendation if it appears credible; otherwise, (iii) the consultant reviews it and advises the firm what action to take.

Despite its simplicity, this process implements the firm's optimal action. Moreover, this depiction of the advisory process appears to be fairly common in CSR efforts around the world. For instance, as we point out in section 3, many of the CSR initiatives recently adopted by firms have been organized by special interest and government advocacy groups in ways that are similar to the process described above. When viewed through the lens of organizational economics and strategy, organized advocacy is an efficient way to delegate decisions to better-informed technical consultants and advocates. The firm commits to delegate by reviewing the advocate's recommendations to ensure they are credible.

An important feature that explains the popularity of organized advocacy is that by collaborating with the advocate, the firm minimizes the cost of implementation. The advocate is a cheap source of accurate but soft information, whereas the firm staff and external consultants provides expensive but verifiable information. Working together, the advocate and the firm staff complement each other, by increasing the value of each other's information. In the equilibrium play of organized advocacy, the advocate truthfully discloses the firm's recommended investment. The advocate is always permitted to implement a low investment recommendation, without costly verification from the firm staff, because this action goes against the advocate's bias (toward high investment) and therefore cannot be

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interpreted as manipulation. If the advocate recommends high investment, a mandatory review by the staff is implemented to demonstrate her claim can withstand the scrutiny of an independent evaluation.

The foregoing theory provides a compelling reason for firms to rely on information from advocates. As Milgrom and Roberts (1986) argue, interested parties tend to be informed precisely because they are interested and are therefore a good source of information for decision makers. However, advocates are distinguished by their willingness to provide free information in exchange for influence. An organized advocate not only influences but compels decision makers to follow her advice by, demonstrating it is credible and by providing this information at least cost. We view these results as complementary to the seminal work on stakeholder theory (Freeman, 1984) and the connection to CSR (Harrison and Freeman, 1999). Our model is one way to formalize how corporate managers respond to stakeholder interests and the challenges inherent in stakeholder management. Thus while we refer to individuals as "advocates" to clarify their precise role, they can be thought of as one variety of firm stakeholder.

Our positive theory of CSR, advanced through five key propositions, is that these arrangements arise to exploit complementarities in organizational design. In the sections to follow we argue that firms with the greatest demand for CSR will gravitate to the stronger, committed advocates who are best organized and can implement the firm's desired interventions at least cost. In turn, strong advocates will benefit the most from influencing firms with high demand for CSR. When advocates are committed but do not have significant resources, our theory predicts they will exchange information with firms for a greater commitment to a particular social cause. In these instances, the firm's distorted social interventions will be viewed as a necessary cost of acting socially responsible.

Finally, in some instances, rival advocates advise a firm for different causes. In the Appendix, we demonstrate that firms employ rival advocates to cross check each other's claims to inform the firm's investment decision. Competing for scare funds from the firm induces the advocate to verify her own claim and review her rival's demand at no additional cost to the firm. Therefore, corporations may undertake numerous initiatives spanning a variety of causes and advocates.

REVIEW OF RELATED WORK

Our theoretical framework builds on a burgeoning literature in strategic management

and the economics of organizations. Strategy scholars have increasingly turned their attention to the challenges of non-market strategy, or the interactions between firms and important stakeholders such as government, the media, non-profits, and the broader public (Freeman, 1984; Baron, 1995; Hillman and Hitt, 1999). Part of this work has focused on corporate campaign contributions (Ansolabehere et al., 2003) and lobbying (Schuler, 1996), while another significant body of literature has focused explicitly on corporate social responsibility activities (e.g. Baron, 2001; McWilliams and Siegel, 2001; Campbell, 2007).

While the literature continues to grow, we contend that scholars still lack robust theoretical explanations for how firms make non-market strategy choices. While it would be difficult to provide a comprehensive explanation of this diverse set of choices, ranging from who and when to lobby to how to engage social entrepreneurs, we note that many of these strategies operate through delegation. Firms often hire outside lobbyists, contribute to trade associations or outside political action committees, or work on CSR efforts in conjunction with non-profits. We thus argue that a model of delegation is an promising way to generate new insights for non-market strategies, particularly in the case of CSR.

Our model of delegation informs this prior work on non-market strategy in general and CSR in particular. The once lively debate whether public goods *should be* provided by private corporations (initiated by Friedman 1970 and continued by Porter and Kramer 2002) has shifted to a discussion of how corporations can best perform their social activities to reap private benefits. For instance, Besley and Ghatak (2007) and Kotchen (2006) explore the efficiencies associated with combining public services with privately provided goods. Brekke and Nyborg (2008) and de Bettignies and Robinson (2013) illustrate the advantage socially responsible corporations have in recruiting highly trained and dedicated employees, and Heal (2005) argues that CSR firms enjoy better access to capital markets. Our positive model builds on this literature to explain the private benefits corporations realize in making social investments. In related work, Baron (2001) and Maxwell, Lyon, and Hackett (2000) suggest political expediency and avoiding regulation are motives for CSR. Our theory further suggests that advocates promote social investment by helping corporations select and implement these initiatives rather than threatening them if they do not. In a related paper, Boleslavsky and Lewis (2013) provide some insights into how firms can delegate greater responsibility to advocates who demonstrate the precision of their predictions over time.

In addition, our work is linked to the large literature in economics on "cheap talk" following Crawford and Sobel's (1982) analysis of strategic information transmission between a decision maker and an adviser who has unverifiable information. We depart from the Crawford and Sobel framework in that we allow for *multiple* sources of information, some of them verifiable and others soft, which can either be substitutes or complements for each other. We find the strategic interaction between the information sources leads to better communication and coordination with the decision maker.

Another body of related work in economics are papers by Milgrom and Roberts (1986) and Grossman (1981). These papers model the setting where a single adviser collects and discloses verifiable information as a game of persuasion, showing that an adviser must have hard evidence to be influential. Che and Kartik (2009) and Van den Steen (2010) extend these analyses to show that an adviser with contradictory views may need to work harder to collect hard evidence to influence the decision maker. As we show below, an advocate with only soft information may be influential as well, if there is another adviser (such as a technical consultant) with hard evidence to verify her findings. As mentioned above, we refer to this corroboration of advice as *organized advocacy*, where advocates and objective technical consultants collaborate to inform the decision maker at least cost.

Further, our model also builds on work on the optimal delegation of decisions to advisers. Holmstrom (1977) is the first to study how the decision maker commits to act contingent on the adviser's recommendation. Dessein (2002) and Alonso and Matouschek (2008) characterize the set of decisions that can be delegated and compare it with the set of decisions that can be implemented without delegation. Our analysis identifies conditions on the cost and value of information that ensure a larger set of actions is implemented under delegation than without it.

Finally, Aghion and Tirole (1997) consider the optimal allocation of decision rights within an organization, revealing a trade-off between incentives for information acquisition and control. Similar to our analysis, they find delegating control of decisions induces the advocate to gather more information. In related analysis, Dewatripont and Tirole (1999) show that competition between advocates (motivated by financial or career concerns) can lead to more informed decisions in administrative proceedings. By contrast we find that advocates working with firm staff lead to better decisions at lower cost.

The rest of the paper proceeds as follows. Section 2 presents our model and illustrates

how organized advocacy is designed to function. Sections 3 and 4 characterize the potential for organized advocates to influence corporate social policy. Section 5 concludes with a summary and topics for further research.

2   Model

This section presents a simple model of corporate decision making with public and private stakeholders and multiple advisers. We use advisers as an umbrella term to cover both advocates with soft information and technical consultants with hard information. Although general enough to capture various institutional settings, the model is intended to provide a positive theory of organization design for promoting CSR.

2.1   What is corporate social responsibility?

A *firm* (F) seeks to act socially responsibly. F may act for reasons of political and economic expediency to avoid government intervention, consumer boycotts, the risk of litigation, or regulatory oversight.[3] Alternatively, F may be altruistic, wishing to contribute to the public good or to reduce social and economic inequities.[4] Whatever F's motives, we require a workable definition of corporate social responsibility. Here, we follow Heal (2005) in envisioning that CSR is implemented by Coasian bargaining, where social costs are externalized and corporations bargain with society about who will ultimately bear these costs. In this section and the next, we construct a positive model of how this Coasian bargain may be implemented in practice. We emphasize that the goal of our model is not to explain the motives for CSR, but rather explain how and why firms organize these activities.

2.2   Evaluation of CSR performance

Non-governmental organizations (NGOs), private and public stakeholders, and social performance rating agencies represent the interests of society. These parties monitor and evaluate the firm's social performance. Although, high-profile firms are naturally heavily scrutinized, most large firms in developed countries voluntarily provide data on social

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[3]See Baron (2001), Lyon and Maxwell (2003), and Heal (2005).
[4]See Heal (2005) and Baron (2008).

investments to rating agencies. These raters act as intermediaries between corporations and the public interest to construct performance indices to evaluate and rank CSR (e.g., Chatterji et al. 2009). Some prior work has found that firms respond to these ratings and pay attention to their scores (Chatterji and Toffel, 2010).[5] As Heal (2009) argues, a positive rating may improve staff morale, enhance brand equity, reduce the firm's cost of capital, and forestall regulatory intervention.

By necessity, CSR performance is measured ex-post, because it is an assessment of what cost was avoided by the corporation's intervention, or what benefits were produced because it was proactive. Activists, agencies and social opinion typically perform the measurement. This evaluation becomes the standard by which the corporation is publicly judged. Although the measurement of CSR is imperfect and subject to measurement error and misinterpretation, it is thought "to be necessary" to influence and publicize good corporate behavior.[6]

An ideal process for evaluating CSR behavior is to measure and reward the corporation for the social surplus it provides. Suppose the firm is expected to provide one public good or service that reduces social conflict. (The analysis is extended to multiple public goods below.) For concreteness, the good is environmental restoration, which is measured as $e \in \mathbb{R}_+$ dollars invested to meet demand for environment quality indexed by state of demand, $x^e \in \mathbb{R}_+$.[7] The firm invests $e \geq 0$ at cost γe and incurs quadratic costs for unmitigated damages of $p(x^e - e)^2$, where $2px^e > \gamma$ to avoid uninteresting cases.[8] The firm's ex-post performance given state x^e and action e is

$$P(x^e, e) = -p(x^e - e)^2 - \gamma e,$$

For convenience, we can rewrite this expression in terms of a quadratic loss function,

$$P(e^*, e) = \bar{R} - p(e^* - e)^2,$$

where $e^* \equiv x^e - \frac{\gamma}{2p}$ is the optimal intervention as a function of the state x^e (corrected for

[5] Chatterji, Aaron K., and Michael W. Toffel. "How firms respond to being rated." Strategic Management Journal 31.9 (2010): 917-945.

[6] Porter and Kramer (2006)

[7] This expenditure provides for reductions in emissions, energy conservation, waste-site cleanup, and remediation of local eco-systems.

[8] To ensure the firm intervenes at a stricty positive level, we assume that the opportunity cost of investing γ, is less than the benefit of investing $2px^e$.

cost), and the social loss from depleting the environment is minimized when $e = e^*$ and $\bar{R} \equiv R(e^*) = \bar{k} - \gamma e^*$ is a constant independent of e, which represents the maximum evaluation possible.[9]

Consistent with efficient Coasian bargaining, $P(e^*, e)$ rewards the firm for cost-effective remediation that takes into account the firm's opportunity cost γ for providing public goods. At the same time, the firm is penalized for insufficient action or for excess care, sometimes referred to as "greenwashing" in the literature.[10] According to Heal (2005), "*It is not enough to have your plan (referring to the corporation) for reducing conflicts with groups in society, this plan has to be acceptable to them too– it takes two to avoid a conflict!*". If the firm operated under *complete information,* it would select $e = e^*$ to minimize its loss. Without complete information, F chooses an action that differs from the optimal intervention by the amount $(e^* - e)^2$, which is penalized at rate $p > 0$, reflecting the marginal cost of choosing the non-optimal mitigation. In practice the penalty p could be determined by "yard stick" competition (e.g., Schleifer ,1985), where the performance of numerous firms operating under similar conditions is compared. Alternatively, the penalty might be determined by public opinion, or chosen as a policy instrument to motivate the firm to match the required demand for intervention.

2.3 Information

Prior to evaluation the preferences of the evaluators as a function of e and e^* are known, as is the firm's ability to act to reduce social conflict and cost. However, the demand for the intervention is uncertain, although it is known two optimal intervention states e_h^* (h for high) and e_l^* (l for low) exist, where $e_h^* > e_l^* > 0$ and each intervention will be drawn with probability one-half. Presumably the size of the optimal intervention e^*, which is determined by the state x^e and opportunity cost γ, varies by the company. A petroleum corporation like BP would be expected to weigh in primarily on environmental restoration, whereas an apparel company like Nike might not be expected to contribute as much to environmental restoration. Although the assumption two (or a finite number of) optimal interventions are possible might be unrealistic, it does provde us with a sufficiently rich

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[9]The assumption of quadratic preferences allows for a straightforward solution to the delegation problem we will address below. Moreover, the quadratic loss function is the work horse for most analyses of delegation and therefore allows us to compare our findings with those in the literature.

[10]Kotchen (2006) and Lyon and Maxwell (2011).

setting to study delegation of decision-making authority.[11]

After the state is observed and the firm has acted, the public and corporate sector share a common knownledge as to what type of corporate social investment would *have been* most beneficial to prevent an environmental disaster. However, it is unlikely that social interveners could *or should* prescribe actions for the firm to take ex ante to reduce potential environmental conflicts. As Benabou and Tirole (2010), Heal (2005), and others argue, firms are better informed than the public about intervening most effectively, so that CSR *should* be delegated to the firms.

2.4   Implementing CSR

Governments, activists and the media are increasingly holding firms responsible for the social consequences of their activities (Porter and Kramer, 2006). As a result, firms must decide how to address the CSR demands they are expected to fullfill. To be a successful corporate citizen requires the firm to undertake a cost-effective search for the most valuable and timely interventions to reduce their social liability. Firms may choose among the following options to determine their CSR agenda.

2.4.1   No search

One strategy is *no search* (N), whereby the firm selects an action based on its initial expectations as to the intervention(s) that are most likely to materialize. Knowing there are two equally likely optimal interventions, e_h^* and e_l^*, that may arise, the firm selects a single action e to maximize its expected performance,

$$F^N = \max_e \left[\frac{P\left(e_h^*, e\right) + P\left(e_l^*, e\right)}{2} \right],$$

The N strategy is least costly but it yields poor a expected CSR evaluation.

2.4.2   Search

An alternative strategy is for F to search in-house (S), for the optimal intervention. At a cost of C_v, the firm's staff or an outside consultant can provide verifiable evidence as to which optimal intervention, e_h^* or e_l^*, the firm should select. It is important that the firm

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[11]The assumption that the number of equally likely realizations of x^e is finite is only a simplifying assumption, as a model with a continuous distribution of realizations would confirm.

staff or outside consultant be objective and unbiased, because the firm wishes to acquire accurate information about the optimal intervention. The firm's expected surplus under option S is

$$F^S = \frac{P\left(e_h^*, e_h^*\right) + P\left(e_l^*, e_l^*\right)}{2} - C_v.$$

In-house search yields the best CSR results, but it is very costly to implement.

2.4.3   Delegate to an advocate

An alternative to searching in-house is for F to delegate the firm's CSR action to one of two types of environmental advocates denoted by E_m. The advocate is very knowledgeable about environmental affairs and conservation, but she is known to be a biased supporter of environmental intervention, no matter what the state of world happens to be. Advocate E_s is a *self-advocate* who derives utility (net of influence costs, C^S),

$$E_S\left(e^*, e\right) = \lambda^S e_s - C^S,$$

from the interventions e_s that she *personally* recommends the firm implement.[12] E_s represents the environmental advocates who derive financial rewards or reputation benefits for being known as *the* advocate who influenced the firm to adopt intervention e_s. The strength of $E_s's$ preference for recognition is reflected by $\lambda^S > 0$, the marginal utility received for each unit of e_s the advocate influences the firm to implement.

Advocate E_I, the ideological advocate, has utility (net of influence costs, C^I),

$$E_I\left(e^*, e\right) = \lambda^I e - C^I,$$

which reflects the intrinsic marginal utility $\lambda^I > 0$, she derives from the firm's environmental intervention, independent of *who* influences the firm to act. The ideological advocate represents the special interests that are driven by their support of the environmental cause. She only cares to maximize the environmental intervention the firm adopts.

The advocates are willing to search for free and to make recommendations for action $r\left(e^*\right) \in \{e_h, e_l\}$ based on their observation of the state. However, because the advocates are biased supporters of the environment, the information they observe on the optimal intervention, although accurate, is soft and can only be verified by the firm's staff at a

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[12]The subscript "s" attached to the action variable e denotes that advocate E_s receives credit for recommending the firm to implement e_s.

cost of C_v. Moreover, the advocate is not allowed to receive positive transfers based on the accuracy of her recommendation, but is permitted to compensate the firm's staff for verifying her recommendation. Hence, because the advocate is known to be a staunch supporter of a particular cause, his lack of credibility limitsher ability to influence F to adopt a particular action. However, the firm can cross check the advocate's recommendations $r \in \{e_h, e_l\}$ at a cost $\bar{I}^m(e_h, e_l)$ (to be determined). Hence the firm maximizes its expected surplus under the delegation strategy by choosing actions $\{e_h, e_l\}$ in order to solve,

$$F^{E_m} = \max_{\{e_h, e_l\}} \left[\frac{P(e_h^*, e_h) + P(e_l^*, e_l)}{2} - \bar{I}^m(e_h, e_l) \right] \text{ for } m = S, I$$

The delegation strategy is likely to be less costly than in house search, but implementing the desired optimal interventions may not be possible, due to the bias of the advocates.

Given the foregoing options, the firm's optimal CSR strategy as determined by

$$F^* = \max_{T \in \{N, S, E_S. E_I\}} F^T,$$

is the strategy that allows the firm to minimze the social and private costs of CSR interventions.

3 To Search or Not to Search

As a benchmark consider *CSR* performance when F searches in-house and when it doesn't search. Because F has diffuse priors that e_h^* and e_l^* are equally likely to occur, he is concerned about matching his action to the optimal intervention. He would like more information before acting, but search for the optimal intervention is costly. Comparing F^S with F^N, we have:

PROPOSITION 1: (*Search Vs. No Search*) F p*refers to searching over not searching whenever the value of information exceeds the cost of information,*

$$\frac{p(e_h^* - e_l^*)^2}{2} \geq C_v$$

By searching, F perfectly matches his action with the optimal intervention. Otherwise, F selects the expected intervention that is less effective. The value of information

$\frac{p\left(e_h^* - e_l^*\right)^2}{2}$, is the loss avoided by acting optimally. However, the increased accuracy comes at cost C_v. F thus prefers to search when the vaue of information exceeds the cost.[13]

The firm's no-search performance is an instructive baseline to compare with command and control regulation. With no search, it is as if F is regulated to provide the ex-ante efficient *commmand and control* mitigation, $\hat{e}^* = \frac{e_h^* + e_l^*}{2}$. [14] By this benchmark, delegating the social investment to F provides no advantage assuming the regulator represents the public interest and has jurisdiction and resources to monitor the firm.

Implications for non-market strategy and CSR

Our model has at least three important implications so far. First, well intended but misguided social investment will often occur. The firm may wish to engage in CSR in a particular domain for example, water quality, but it may not know where to perform the project and which groups are most afffected by the problem. A thorough project search can provide this information. Second, **C**SR is likely to occur in response to high demand and local needs. High demand interventions such as cleanup of a local toxic waste site, are typically signalled by a large penality p for failing to respond. Information is more valuable in identifying high-demand interventions, suggesting these interventions are good CSR projects for the firm. The firm is likely to prefer local over regional interventions to the extent that information about local interventions is better and the benefits of participating as well as the cost of not intervening are more visible for local projects.[15] Finally, CSR is likely to occur in response to low-probability, catastrophic events. Low-probability, catastrophic events such as an oil spill, an explosion at a chemical manufacturing plant, or a credit card breach, are certain to be CSR projects for which the firm will be held responsible. The firm will be the party that can avoid these accidents at least cost, and

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[13]This result generalizes to the case in which the in-house search is partially (not completely) informative about the optimal intervention. Assume the firm can only confirm the realization of e^* with probability $\alpha \leq 1$ at a cost of C_v. Then the value of information becomes $\frac{\alpha p(\ e_h^* - e_l^*)^2}{2}$ and F prefers to search provided

$$\frac{\alpha p(\ e_h^* - e_l^*)^2}{2} \geq C_v.$$

[14]Command and control is direct regulation of an economic and social activity, in contrast to incentive regulation which relies on rewards and punishments to induce desired behavior.

[15]Most firms will have a section of their CSR materials dedicated to the local "community." An example can be found here: http://corporate.ford.com/our-company/community.

Most of the rating agencies assess the firm's impact on the local community as well. See Chatterji et al. (2009).

will be held liable by social opinion as well as the law. As an example, after a recent breach of customer credit card information, Target offered its customers free credit reporting.[16]

4   Organized Advocates

Delegating decisions to an advocate requires the most intricate organization design of the three processes we analyze. Three independent agents–the rater, the firm and the advocate–collaborate to support the firm's CSR program. Upstream of this process, the rater evaluates and certifies the firm's performance for public consumption, in effect providing derived preferences for the firm to maximize CSR performance. The firm staff is essential to checking which type of investment would be socially responsible. However, their advice is a cost the firm would like to avoid. The advocate is most valuable here at the information-gathering stage. The advocate is an interested party wishing to influence the firm to adopt the highest and most ambitious intervention, whether it is needed or not. Fueled by career concerns in the case of the self-advocates or by their concern for protecting the environment in the case of the ideological advocate, these advocates are willing to advise the firm in the hope of influencing it to adopt their preferred social intervention. Although the advocate is well informed about the most effective social interventions, the firm staff must cross check her recommendation for certain types of actions to ensure it is credible. All of the aforementioned interactions between the parties are integrated and organized by design to promote CSR behavior.

4.1   Self-advocacy

We first investigate the delegation of decision making to a self-advocate. F chooses a self-advocate E_s to advise him.[17] The advocate is a known supporter of environmental

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[16]Tsukayama, Hayley, "Target says customers signing up for free credit monitoring after data," The Washington Post (http://www.washingtonpost.com/business/technology/target-says-customers-signing-up-for-free-credit-monitoring-after-data-breach/2014/01/13/99fcce60-7c83-11e3-95c6-0a7aa80874bc_story.html)

[17]If multiple advocates exist, the firm selects the strongest of the advocates to advise him. Delegating to multiple self-advocates for the same cause offers no advantage, because only one will receive credit for advising the firm. F selects the advocate who is the strongest supporter, assuming he knows the relative strength of the different advocates. If the advocates' strengths are unknown, the firm could hold an auction to determine which advocate offers the most favorable advising terms, an option, however, that we don't consider in this paper.

intervention who derives surplus (net of influence cost C^S),

$$E_s = \lambda^S e_s - C^S.$$

Influence costs C^S consist of the advocate's private cost $c_s \geq 0$ of observing the optimal intervention, as well as $C_v^S \in [0, C_v)$, the cost E_s incurs in assisting the firm staff to verify her observations are authentic. We assume F wishes to delegate the choice of action to E_s who is asked to select an action e_h or e_l that best matches the optimal intervention. To implement the desired actions, the advocate and the firm play a delegation game governed by this agreement.

4.1.1 Delegation agreement

Stage 1: *E_s privately observes the optimal intervention e^* at cost $c_s \geq 0$. E_s recommends action $r(e^*) \in \{e_h, e_l\}$, where e_h and e_l are the actions F intends to use when the optimal intervention is e_h^* or e_l^*, respectively.*

Stage 2: *If E_s recommends e_l it is approved by F without review. If E_s recommends e_h she transfers $C_v^S \in [0, C_v)$ to F to verify the recommendation. F implements the recommendation if it is verified, otherwise F selects action e_l^*, and E_s is not credited for her recommendation.*

Before analyzing this game, note three provisions of the agreement. First, requiring E_s to certify her report when she recommends the high action alleviates the "cheap talk" problem. Second, the delegation may, but need not, contain actions (e_h^*, e_l^*) that are sequentially rational for F to implement. Although these actions would be the most desirable for E_s to implement, implementing sub-optimal actions instead would be more cost effective. Third, to prevent improper influence payments between the parties, the advocate may only pay the firm staff to verify her recommendation.

4.1.2 Implementation

Implementing the desired actions at least cost requires that the following incentive compatibility conditions and *obedience* constraint are satisfied:

$$C_v^S \quad \leq \quad \lambda^S (e_h - e_l) \tag{ICh}$$

$$\lambda^S e_l \quad \geq \quad -C_v^S \tag{ICl}$$

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$$-c_s + \frac{1}{2}\lambda^S e_l + \frac{1}{2}\left(\lambda^S e_h - C_v^S\right) \geq \max\left[\lambda^S e_l, \frac{\lambda^S e_h}{2} - C_v^S\right]. \tag{O}$$

Constraint (ICh) requires that when E_s observes e_h^*, the payment C_v^S to verify her recommendation is less than the additional surplus from truthful reporting.[18] Constraint (ICl) requires that the advocate prefers to report the low course of action truthfully; it is always satisfied by the delegation agreement because E_s prefers $\lambda^S e_l$ over paying C_v^S to have her recommendation e_h rejected. The obedience constraint (O) requires that spending c_s to observe e^*, then recommending the optimal action and paying for verification (when necessary), exceeds the maximum of [recommending e_l or e_h, without observing the optimal intervention].[19]

The constraints (ICh), (ICl), and (O) define the set of actions $\{e_h, e_l\}$ that may be implemented. The cost to F of implementing the actions is $\bar{I}^S(e_h, e_l) = \frac{C_v - C_v^S}{2}$, because only the recommendation of action e_h is reviewed at net cost to F of $C_v - C_v^S$ and this cost is incurred one-half of the time. Hence the optimal delegation of action to E_s may be written as the solution to

$$F^{E_s} = \max_{\{e_h, e_l, C_v^S\}} \left[\frac{P(e_h^*, e_h) + P(e_l^*, e_l)}{2} - \frac{C_v - C_v^S}{2}\right] \tag{F^{E_S}}$$

$$s.t. \, (ICh), (ICl) \text{ and } (O).$$

One question of interest is whether F is able to implement her sequentially rational or ex-post efficient actions, $\{e_h^*, e_l^*\}$. To do so, the firm induces E_s to obediently observe and recommend the optimal action for each state. The cost to E_s of being obedient c_s, is the cost of observing the state, whereas the benefit of being obedient $\lambda^S(e_h^* - e_l^*)/2$, is the additional surplus from correctly recommending e_h^* rather than e_l^* after observing state e_h^*. For a sufficiently strong advocate, the benefit from being obedient exceeds the cost, $\lambda^S(e_h^* - e_l^*)/2 \geq c_s$. This explanation leads to our first result on self- advocacy,

PROPOSITION 2: *(Self-advocacy): A set of strong advocates exists with marginal utility, $\lambda^S \geq 2c_s/(e_h^* - e_l^*)$, that are delegated the selection of the firm's optimal action*

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[18]Recall E_s receives $\lambda^S e_l$ whenever she recommends e_l, and she receives $\lambda^S e_h - C_v^S$ whenever she recommends e_h and her recommendation is confirmed.

[19]Constraint (O) also requires it to be individually rational for E_s to participate, which is ensured because E_s may at least recommend e_l and receive strictly positive surplus.

$e \in (e_h^*, e_l^*)$. *The firm receives expected surplus*,[20]

$$F^{E_s} = \left[\bar{R} - \frac{C_v - C_V^S}{2} \right].$$

Proof See Appendix

In outsourcing CSR to independent agents, the firm designs a process for information acquisition, communication, and decision making. The firm's ability to communicate hard information about the firm's prospects is necessary and sufficient to implement the optimal actions. Nonetheless, the firm prefers to be advised by an advocate. When the advocate is sufficiently strong, the firm can rely on her to direct its CSR program with minimal oversight. Although these results are consistent with Aghion and Tirole (1997) and Dessein (2002), who find that delegating decisions to agents with moderately misaligned preferences from the decision maker may be beneficial, we find conditions when delegation may be preferred even when preferences are completely misaligned.

Implications for non-market strategy and CSR

An additional implication from this analysis is that the best adviser is a strong organized advocate. It may seem surprising that a strong preference misalignment can be a desirable feature of an advisor, yet it is precisely this misalignment that makes advocacy a superior organizational design for the many settings we have identified. The explanation is that the strong advocate has sufficient incentive to inform the firm about its optimal intervention when she receives the credit in return. We believe this explains the rise of "unlikely partnerships" between groups like EDF, Conservation International, the Rainforest Action Network, and large corporations.

By contrast, a weak advocate, one with a smaller utility λ^S for its cause, requires additional inducements to advise the firm, that increases the firm's cost of implementation and reduces the value of information.

PROPOSITION 3 *(Weak Self-advocacy)* A $\underline{\lambda} \in (0, 2c_s/(e_h^* - e_l^*))$ exists *such that weak self-advocates with marginal utility* $\lambda^S \in (\underline{\lambda}, 2c_s/(e_h^* - e_l^*))$ *may be delegated selection of the firm's action* $e \in \{e_h^* + \Delta, e_l^* - \Delta\}$, *where* $\Delta > 0$. *The firm receives expected surplus,*

$$F^{E_s} = \left[\bar{R} - p(\Delta)^2 - \frac{C_v}{2} \right]$$

Proof: See the appendix.

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[20]Note $\bar{R} = (R(e_h^*) + R(e_l^*))/2$.

17

Ironically, the less-biased self-advocates don't perform as well as the biased ones. The firm's cost of implementing a given set of actions is higher and the implemented actions are distorted from the optimal interventions, when relying on the weaker advocate. The rationale for this result is that inducing a weak advocate to collect the information required to advise the firm is more difficult. The firm must induce the advocate to acquire information by increasing the variance in actions that are implemented to increase the value of information for the advocate. Now if the weaker advocate always recommends the low action, without observing the state, she suffers an expected loss of surplus equal to $\lambda^S \left(e_h^* - e_l^* + 2\Delta\right)/2$, that must be greater than the cost c_s to observe the optimal intervention and avoid the loss.[21]

Distorting the actions implemented in each state is necessary for information collection, but it comes at a cost of reducing the firm's CSR performance. Now the firm undersupplies action in the low state and oversupplies action in the high state.

Implications for non-market strategy and CSR

There are two key implications from this proposition. First, weak advocates are less effective advisers. As a consequence, firms will seek out the most biased and staunch supporters of their cause. Second, firm's advised by weak advocates will spend more and be perceived as less socially responsible: Firms that are advised by known strong advocates will be viewed as better corporate citizens, because their performance will be better on average.

4.2 Ideological advocacy

F chooses an ideological advocate E_I to advise him. The advocate is a known supporter of environmental intervention who derives surplus

$$E_I \left(e^*, e\right) = \lambda^I e - C^I,$$

equal to her utility $\lambda^I e$ from prescribing the action e the firm adopts, *minus* C^I the cost she expends to advise the firm. Importantly, $E_I's$ utility depends only on the *level of action* e the firm implements, in contrast to the self-advocate E_S, who only derives utility from interventions she personally induces the firm to adopt. $E_I's$ preference is driven by her belief that corporate provision of environmental restoration is insufficient . As Heal (2005) and Conroy (2005) explain, ideological advocates tend to lobby for sustainable supply

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[21]Lewis and Sappington (1997) and Szalay (2005) similarly observe the necessity of distorting the delegation set of alternatives, to induce agents to become informed about the best actions to implement.

chains dedicated to reducing poverty and assisting impoverished suppliers of agricultural commodies and natural resource products.

We assume F wishes to implement a different action for each state, $r(e^*) \in \{e_h, e_l\}$. E_I is willing to provide recommendations for actions, provided she can increase the *expected action* the firm would adopt without her advice. In the absence of E_I, assume F would search in-house and receive expected surplus equal to $F^S = \bar{R} - C_v$. Taking F^S as the firm's default option, E_I proposes a delegation agreement to F with the following provisions:

4.2.1 The Delegation agreement[22]

Stage 1: *E_I privately observes the state e^* at cost c_s. E_I recommends action $r(e^*) \in \{e_h, e_l\}$.*

Stage 2: *If E_I recommends e_l, it is approved without review. If E_I recommends e_h, F implements it, provided it is verified by his staff; otherwise, F implements e_l^* (the individually rational action given state e_l^*).[23]*

This agreement is similar to the agreement between E_s and F with a few exceptions. First, F only agrees to this delegation if the expected surplus from delegating to E_I exceeds the default option surplus, such that $F^{E_I} \geq F^S$. Second, no monetary transfer occurs from E_I to F because E_I extracts all of the surplus from advising F.

4.2.2 Implementation

Implementing the desired actions at least cost requires the following incentive compatibility, obedience, and participation constraints are satisfied:

$$\lambda^I e_h \geq \lambda^I e_l, \tag{ICh}$$

$$\lambda^I e_l \geq \lambda^I e_l^*, \tag{ICl}$$

$$-c_s + \frac{\lambda^I(e_h + e_l)}{2} \geq \max\left[\lambda^I e_l, \frac{\lambda^I(e_h + e_l^*)}{2}\right], \tag{O}$$

$$\left[\frac{P(e_h^*, e_h) + P(e_l^*, e_l)}{2} - \bar{I}^I(e_h, e_l),\right] \geq \bar{R} - C_v. \tag{DO}$$

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[22]Because of the scarcity of ideological advocates, we're assuming E_I has all of the bargaining power to propose a take-or-leave-it offer to the firm.

[23]Recall, a recommendation is proven to be incorrect if F provides evidence that the state differs from the advocate's report. Hence if E_I recommends e_h and her recommendation is found to be incorrect, the firm selects the sequentially rational action e_l^* corresponding to the optimal intervention.

Regarding (ICh), if E^I observes e_h^* and reccommends e_h, she receives $\lambda^I e_h$ which should be greater than the utility $\lambda^I e_l$ she receives if she reports e_l.[24] Regarding (ICl), if E^I observes e_l^* and reccommends e_h her recommendation is rejected by F, leaving her with $\lambda^I e_l^*$, which should be less than $\lambda^I e_l$, the surplus she receives for truthfully recommending e_l. In addition, an obedience constraint exists for E_I to satisfy, indicating $E_I's$ expected surplus generated from investing c_s and recommending the appropriate action (the *LHS* of (O)) exceeds the expected surplus of recommending e_l or e_h without being informed (the *RHS* of (O)). The final constraint (DO) requires that the firm weakly prefers to delegate to E_I rather than search.

The constraints above determine the actions $\{e_h, e_l\}$ the advocate can implement. The advocate's goal then is to

$$\max_{\{e_h, e_l\}} \left\{ \lambda^I \left(e_h + e_l \right) - c_s \right\}$$

$$s.t. \, (ICh), (ICl), (O), \text{ and } (DO).$$

In what follows, we assume E_I is strong in that her utility for the intervention λ^I is sufficiently large. In that case, only the default option constraint (DO) is binding in the problem above. Summarizing our arguments to this point, we have the following proposition that is proved in the appendix.

PROPOSITION 4: *(Ideological Advocacy) Assume E_I is strong so that λ^I is sufficiently large. Then a delegation Agreement exists that implements uniformly higher-than-efficient actions*

$$e_h = e_h^* + \Delta, \quad e_l = e_l^* + \Delta.$$

The Agreement provides F expected surplus

$$F^{EI} = \frac{P\left(e_h^*, e_h\right) + P\left(e_l^*, e_l\right)}{2} - \frac{C_v}{2} \geq F^S,$$

that F weakly prefers to searching.

Proof: See the appendix.

The intuition for this finding is that exchanging higher action for more information provides mutual gains when starting from the intervention level given the firm's diffuse prior, e^*. At the margin, the firm is indifferent to increasing action, whereas E_I strictly prefers a higher action. This exchange is mutually beneficial; the firm avoids some costs

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[24]Recall, if E_I erroneously recommends e_h, she is awarded e_l^* instead.

of verification when E_I observes e_l^*, whereas E_I induces the firm to adopt higher actions in all states of the world.

Implications for non-market strategy and CSR

This proposition yields two additional implications. First, ideological advocates exert real influence by forcing the firm to stipulate the set of actions that it will implement. Furthermore, E_I prefers these actions because they are higher than the actions the firm would normally implement, given full information. Second, ideological advocacy is a pragmatic behavior for the policy advocate who is driven to support what she believes to be a worthwhile cause: Cause-driven activists are becoming an increasingly important network to reward environmental responsibility and poverty reduction in developing countries. In practice, the E_I combines performance evaluation and advice into one service by requiring the firm to adopt a higher level of intervention than is necessary, given the true merits of the initiative (i.e. the state). .

4.3 Two-sided advocacy

Corporations frequently undertake several public-good investments. The typical Fortune 500 company will list CSR efforts across many different areas, acting as a steward for critical resources such as water and energy as well as an activist for distributive justice and the fair distribution of corporate surplus among its customers, employees, and investors. Some rationales for this behavior are that it enables the corporation to expand its CSR visibility, to diversify its social investment portfolio, and perhaps not as obvious, to reach out to different social cause advocates and stakeholders for advice and guidance.

To investigate the rationale for multi-sided advocacy, consider the firm that in addition to environmental restoration, decides to supply $d \in \mathbb{R}_+$ units of *distributive justice*. d provides for the redistribution of income between workers, suppliers, and consumers and a more equitable division of corporate surplus among social and corporate stake-holders. With two public goods, the CSR evaluation for reducing corporate societal conflicts now becomes a two-variable quadratic loss function of the form,

$$P\left(d^*, e^*, d, e\right) = \bar{R}\left(d^*, e^*\right) - p[(d^* - d)^2 + (e^* - e)^2].$$

Advocates D_m, E_m exist for each intervention d and e and mode $m = S$ (*self*), I (*ideological*) with

identical preferences for their preferred intervention,[25]

$$D_{m,} = \lambda d \ - C, \ \ E_{m,} = \lambda e \ - C, \ \text{for } m = S, I$$

The advocates are assumed to be strong, meaning their preference for intervening λ is sufficiently large that each is willing to advise the firm as the lone advocate under the agreements presented above in sections 4.1.2 and 4.2.2.

Initially, it is common knowledge that there are two optimal interventions for each cause, $d^* \in \{d_h^*, d_l^*\}$ and $e^* \in \{e_h^*, e_l^*\}$, that the high and low interventions for each cause are equal, $(d_h^* = e_h^* \ , d_l^* = e_l^*)$, and that the joint distribution of optimal interventions is negatively correlated such that $pr\,(d_h^*, e_l^*) \ = \ pr\,(d_l^*, e_h^*) \ = \ 1/2$. Hence the sum of optimal interventions for each realization of states is a fixed amount to be divided between competing causes.

We have constructed this special case to investigate whether employing rival advocates to advise the firm is effective. Our findings are summarized in the following Proposition which is proved in the appendix.

PROPOSITION 5: *(Two-Sided Advocacy) Suppose D_m and E_m are strong. Then there exists a mechanism that implements the efficient actions at least cost and provides the expected surpluses,*

$$\begin{aligned}
D_m\left(M^{D_m, E_m}\right) &= \tfrac{\lambda\left(d_h^* + d_l^*\right) - c_s}{2} \\
E_m\left(M^{D_m, E_m}\right) &= \tfrac{\lambda\left(e_h^* + e_l^*\right) - c_s}{2} \\
F\left(M^{D_m, E_m}\right) &= \bar{R}\left(d^*, e^*\right).
\end{aligned}$$

Implications for non-market strategy and CSR

The key implication of this extension is that two sided advocacy offers two advantages to the firm implementing CSR. First, rival advocates can share the cost of gathering information when at least some correlation is present in the optimal interventions. (Although we've analyzed the negative correlation case, the same conclusion applies when positive correlation occurs.) Second, the rival advocates cross check each's recommendations in order to protect their own interests. The threat that the firm will investigate different recommendations will dissuade either advocate from making false or uninformed recommendations. These advantages of employing multi-sided advocates might explain why several corporations, such as Goldman Sachs, state they work with numerous non-profit

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[25]We are considering the interaction between rival advocates of the same mode $m = S$ or I only. A possibly interesting extension, that we haven't analyzed, is for advocates of different causes and different modes to advise the firm.

and academic partners across several issue domains.[26]

5 Conclusion

We seek to contribute to the development of a more robust theory of non-market strategy, particularly related to corporate social responsibility activities. While strategy and organizational scholars have increasingly turned their attention to non-market strategy and CSR, there remain many unanswered questions about how firms choose their non-market strategies, how they implement them and when they are most likely to achieve their objectives. We believe that modeling relations between the firm and a stakeholder as a delegation game can shed light on all of these dimensions. Our theory identifies the type of social objectives firms will choose to address, when they will delegate important functions to a stakeholder, and how the stakeholder's attributes impact the success of the partnership. While any general theory will be somewhat abstract, we use several examples to argue that our model captures many aspects of the practice of non-market strategy and can explain them.

Our theory posits that firm's pursuing social objectives require collaboration and organized effort from various stakeholders affected by corporate operations. The key challenge firms face concerns which projects to select to maximize their image as socially responsible. Advocates, although biased, possess valuable information about projects. However, firms cannot trust that the advocates will provide accurate information, given their biases. To remedy this tension, the firm acquires costly expertise to provide an accurate assessment of projects. The process of organized advocacy then allows activists to suggest projects and the firm to verify them when neccessary.

Our theory further predicts that which non-market strategies can be implemented depends on the motives of the advocate. We further predict that the strongest advocates, those with the neccessary resources and preferences to search effectively, will be most influential on firm strategy. Those firms with the greatest demand for a particular social objective and the required resources to evaluate options will partner with the strongest advocates.

More generally, our theory provides a framework for understanding the emergence of CSR and the myriad of actors associated with these activities. It also explains why firms engage in CSR projects and what their goals are, an important issue in reconciling economic theory and strategic management with regards to this growing phenemenon.

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[26]http://www.goldmansachs.com/citizenship/corporate-engagement/

6 Appendix

6.1 Proof of Propositions 2 and 3

The solution to the firm's optimal delegation problem,

$$F^{E_s} = \max_{\{e_h \geq 0, e_l \geq 0, C_v^S \in [0, C_v)\}} \left[\frac{P(e_h^*, e_h) + P(e_l^*, e_l)}{2} - \frac{C_v - C_v^S}{2} \right] \qquad (F^{E_S})$$

$$s.t. \, (ICh), (ICl) \text{ and } (O)$$

is most easily solved by finding the solution to the relaxed problem where only the obedience constraint is binding. In this case $\left(F^{E_s}\right)$ is transformed into finding the solution to

$$L = \max_{\{e_h, e_l, C_v^S\}} \left[\frac{P(e_h^*, e_h) + P(e_l^*, e_l)}{2} - \frac{C_v - C_v^S}{2} \right]$$
$$+ \mu_0 \left(-c_s + \frac{1}{2} \left(\lambda^S (e_h - e_l) \right) \right),$$

$$(A1)$$

where we assume, for convenience, the binding obedience constraint is .

$$-c_s + \frac{1}{2} \left(\lambda^S (e_h - e_l) \right) \geq 0 \qquad (O')$$

A sufficient condition for (O') to be the binding constraint is that e_h^* is not too large relative to e_l^*.[27] The first order conditions for the solution to $(A1)$ are,

$$L_{e_h} = p(e_h^* - e_h) + \frac{\mu_0 \lambda^S}{2} = 0 \qquad (A2a)$$

$$L_{e_l} = p(e_l^* - e_l) - \frac{\mu_0 \lambda^S}{2} = 0 \qquad (A2b)$$

$$\mu_0 \geq 0, -c_s + \frac{1}{2} \left(\lambda^S (e_h - e_l) \right) \geq 0 \qquad (A2c)$$

$$\mu_0 \left(-c_s + \frac{1}{2} \left(\lambda^S (e_h - e_l) \right) \right) = 0. \qquad (A2d)$$

---

[27]A sufficient condition for the obedience constraint to bind at $-c_s + \frac{\lambda_s(e_h - e_l)}{2} = 0$ is that $e_h^* \leq 2e_l^*$.

Suppose $\lambda^S \geq \frac{2c_s}{e_h^* - e_l^*}$. Then its easy to verify that $\{e_h = e_h^*, e_l = e_l^*, C_v^S \in [0.C_V)\}$ solves $(A2a) - (A2d)$. Suppose $\lambda^S < \frac{2c_s}{e_h^* - e_l^*}$ then it's easy to verify there is a $\Delta \in (0, e_l]$ such that $\{e_h = e_h^* + \Delta, e_l = e_l^* - \Delta, C_v^S = 0\}$ is the solution to $(A2a) - (A2d)$ provided λ^S is sufficiently large such $\lambda^S \in \left(\underline{\lambda}, \frac{2c_s}{e_h^* - e_l^*}\right)$. This confirms the results reported in Propositions 2 and 3. ■

6.2   Proof of Proposition 4

The solution to the advocate's problem, assuming only the default option constraint is binding, can be written as

$$
L = \max_{\{e_h, e_l\}} \left[\frac{\lambda^I (e_h + e_l)}{2} - c_s \right]
$$
$$
+ \beta \left[\bar{R} - \frac{p(e_h^* - e_h)^2 + p(e_l^* - e_l)^2}{2} + \frac{C_v}{2} - [\bar{R} - C_v] \right],
$$
(A3)

where $\beta \geq 0$ is the Lagrange multiplier attached to the (DO) constraint in the text. The first order conditions for the solution to $(A3)$ are

$$
L_{e_h} = \frac{\lambda_I}{2} + \beta [p(e_h^* - e_h)] = 0
$$
(A3a)

$$
L_{e_l} = \frac{\lambda^I}{2} + \beta [p(e_l^* - e_l)] = 0
$$
(A3b)

$$
\beta \left[\bar{R} - \frac{p(e_h^* - e_h)^2 + p(e_l^* - e_l)^2}{2} + \frac{C_v}{2} - [\bar{R} - C_v] \right] = 0
$$
(A3c)

$$
\beta \geq 0, \left[\bar{R} - \frac{p(e_h^* - e_h)^2 + p(e_l^* - e_l)^2}{2} + \frac{C_v}{2} - [\bar{R} - C_v] \right] \geq 0
$$
(A3d)

It is easy to verify that there exists a $\Delta = \left(\frac{C_v}{2p}\right)^{.5}$ such that $\{e_h = e_h^* + \Delta, e_l = e_l^* + \Delta\}$ is the solution to $(A3a) - (A3d)$, thus confirming Proposition 4.■

6.3   Proof of Proposition 5

The interaction between opposing advocates is modeled as a two-stage process.

Stage 1: The firm stipulates four mechanisms in which each advocate may choose to participate

$$M^{O_m}, M^{D_m}, M^{E_m}, M^{D_m, E_m}.$$

In mechanism, M^{0_m}, neither advocate participates so that F searches in-house for the optimal interventions. For mechanism M^{D_m} and M^{E_m}, the firm F is advised by one advocate D_m or E_m, and the final mechanism M^{D_m, E_m} has both advocates advising the firm simultaneously. The expected surpluses of the advocates participating in the different mechanism are reported as their payoffs in a simultaneous-move participation game in Normal form below.

Table 1 (respectively, 2) depicts the participation game between idelogical advocates D_I and E_I. (respectively, self-advocates D_S and E_s). The advocates simultaneously decide whether to *participate*, P, or *not participate* N. If neither or both ideological advocates participate, they each receive the same payoff listed in the upper diagonal quadrant or lower diagonal quadrant, respectively. The off-diagonal quadrant lists the payoffs to both advocates when only one participates. In previous analyses in the body of the paper leading up to this point, we have analyzed and computed the payoffs for all but the last mechanism, M^{D_m, E_m}.

D_I/E_I	N		P	
N	$\left[\frac{\lambda\left(d_h^* + d_l^*\right)}{2}\right]$	$\left[\frac{\lambda\left(e_h^* + e_l^*\right)}{2}\right]$	$\left[\frac{\lambda\left(d_h^* + d_l^* - 2\Delta\right)}{2}\right]$	$\left[\frac{\left(\lambda\left(e_h^* + e_l^* + 2\Delta\right) - 2c_s\right)}{2}\right]$
P	$\left[\frac{\left(\lambda\left(d_h^* + d_l^* + 2\Delta\right) - 2c_s\right)}{2}\right]$	$\left[\frac{\lambda\left(e_h^* + e_l^* - 2\Delta\right)}{2}\right]$	$\left[\frac{\left[\lambda(d_h^* + d_l^*) - c_s\right]}{2}\right]$	$\left[\frac{\left[\lambda(e_h^* + e_l^*) - c_s\right]}{2}\right]$

Table 1: Participation of Ideological Advocates

D_S/E_S	N	P
N	$[0]$, $[0]$	$[0]$, $\left[\dfrac{\left[\lambda\left(e_h^*+e_l^*-2c_s-C_v^S\right)\right]}{2}\right]$
P	$\left[\dfrac{\left[\lambda\left(d_h^*+d_l^*\right)-2c_s-C_v^S\right]}{2}\right]$, $[0]$	$\left[\dfrac{\left[\lambda\left(d_h^*+d_l^*\right)-c_s\right]}{2}\right]$, $\left[\dfrac{\left[\lambda\left(e_h^*+e_l^*\right)-c_s\right]}{2}\right]$

Table 2: Participation of Self-advocates

The payoffs in the Tables suggests the following two step mechanism M^{D_m,E_m} to implement the optimal interventions at minimal cost to the firm.

.

Step 1: *A random advocate, in this case E_m, is chosen to go first. E_m observes (d^*,e^*) at cost c_s and recommends $r^E(\cdot,\cdot) \in \{(d_l^*,e_h^*),(d_h^*,e_l^*)\}$:*

>*if $r^E = (d_h^*,e_l^*)$, F implements it and the delegation ends, and both advocates receive credit for their desired intervention.*

>*if $r^E = (d_l^*,e_h^*)$, E_m shares her observation with D_m* [28].

Step 2: *D_m reviews $E_m's$ observation and decides to observe (d^*,e^*) at cost c_s or not, and then recommends $r^D(\cdot,\cdot) \in \{(d_l^*,e_h^*),(d_h^*,e_l^*)\}$:*

>*if $r^D = r^E$, F implements it and both advocates receive credit.*

>*if $r^D \neq r^E$, F observes (d^*,e^*) and charges $2c_s + c_\varepsilon$, (where $c_\varepsilon > 0$) to the advocate who makes the wrong recommendation when $m = I$. Only the advocate with the correct recommendation receives credit for its intervention, when $m = S$.*

LEMMA 1: *The mechanism M^{D_m,E_m} implements the optimal interventions at no cost to the firm.*

Proof:

For the mechanism M^{D_m,E_m} to implement the optimal interventions, it must be incentive compatible for the advocates to observe the optimal interventions and to make truthful recommendations. Working backwards from *Step 2* of the mechanism, we require the following constraints to be satisfied:

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[28]Evidence consists of data and predictions that are sufficient for an advocate to establish the firm's optimal intervention.

(i) If E_m recommends (d_l^*, e_h^*) and D_m observes (d_l^*, e_h^*), D_m prefers verifying over contesting the recommendation because,

$$\lambda d_l^* > \lambda d_l^* - (2c_s + c_\varepsilon) \quad \text{for } m = I$$

(ICh)

$$\lambda d_l^* > 0 \qquad\qquad\qquad \text{for } m = S.$$

(ii) If E_m recommends (d_l^*, e_h^*) and D_m observes (d_h^*, e_l^*), D_m prefers contesting over verifying the recommendation, because

$$\lambda d_h^* \geq \lambda d_l^* \quad \text{for } m = S, I$$

(ICl)

(iii) If E_m recommends (d_l^*, e_h^*) and D_m observes no evidence, we assume (and verify below) D_m infers E_m did not observe (d^*, e^*). Hence, D^m infers that $d = d_l^*$ and $d = d_h^*$ with probability $1/2$.

D^m chooses between three options: (1) recommend (d_h^*, e_l^*); (2) recommend $(d_l^*, e_h^*,)$ or (3) observe (d^*, e^*) at cost c_s and recommend $r(d^*, e^*) \in \{(d_l^*, e_h^*), (d_h^*, e_l^*)\}$. The expected payoffs for S and I are respectively,

$$\max \begin{bmatrix} \underbrace{\dfrac{\lambda(d_h^*)}{2}}_{Op(1):\ r=\left(d_h^*, e_l^*\right)} \\[2em] \underbrace{\lambda d_l^*}_{Op(2):\ r=\left(d_l^*, e_h^*\right)} \\[2em] \underbrace{-c_s + \dfrac{\lambda(d_h^* + d_l^*)}{2}}_{Op(3):\ Obedience} \end{bmatrix} , \quad \max \begin{bmatrix} \underbrace{\dfrac{\lambda(d_h^*) - (2c_s + c_\varepsilon)}{2}}_{Op(1):\ r=\left(d_h^*, e_l^*\right)} \\[2em] \underbrace{\lambda d_l^*}_{Op(2):\ r=\left(d_l^*, e_h^*\right)} \\[2em] \underbrace{-c_s + \dfrac{\lambda(d_h^* + d_l^*)}{2}}_{Op(3):\ Obedience} \end{bmatrix}$$

It is easy to verify Option 3 (*obedience*) is the best option if D_m is strong such that,

$$\lambda \geq \frac{2c_s}{(d_h^* - d_l^*)}$$

because, the expected surplus from the obedience option is greater than the expected

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surplus from options (1) and (2) for both advocate types,

$$
\underbrace{-c_s + \frac{\lambda\left(d_h^* + d_l^*\right)}{2}}_{Op(3):Obedience} \geq \max \begin{bmatrix} \underbrace{\dfrac{\lambda\left(d_h^*\right)}{2}}_{Op(1):\ r=\left(d_h^*,e_l^*\right)} \\[2em] \underbrace{\dfrac{\lambda\left(d_h^*\right) - \left(2c_s + c_\varepsilon\right)}{2}}_{Op(1):\ r=\left(d_h^*,e_l^*\right)} \\[2em] \underbrace{\lambda d_l^*}_{Op(2):\ r=\left(d_l^*,e_h^*\right)} \end{bmatrix} \tag{O_D}
$$

Summarizing, $D_m's$ surplus-maximizing strategy is to verify recommendations she observes and to investigate recommendations that she doesn't observe.

Moving backwards to *Step 1* assume E_m expends c_s to observe (d^*, e^*).

(iv) If E_m observes (d_l^*, e_h^*), her best play is to recommend (d_l^*, e_h^*) and share her evidence with D_m. D_m will confirm the recommendation and E_m will recieve her maximum surplus of λe_h^*.

(v) If E_m observes (d_h^*, e_l^*) her best play is to recommend (d_h^*, e_l^*) and receive surplus λe_l^*. Otherwise, if E_m recommends (d_l^*, e_h^*) and (i) she provides evidence of her observation to D_m her recommendation will be denied, or (ii) she doesn't provide evidence, D_m will investigate her recommendation to show it should be denied.

Summarizing, whenever E_m observes (d^*, e^*), her best play is to recommend the optimal intervention and to provide evidence to D_m, if necessary. If E_m recommends (d_l^*, e_h^*) and doesn't provide evidence, D_m rationally infers E_m has not observed (d^*, e^*) and that $E_m's$ recommendation is uninformative. This validates our assumption above, that D_m rationally infers that E_m has not observed (d^*, e^*) whenever E_m does not present evidence.

(vi) If E_m is obedient and expends c_s to observe (d^*, e^*), her expected surplus is given below by the *lhs* of (O_{E_I}) and (O_{E_S}) respectively for $m = I, S$. If E_m does not observe (d^*, e^*) her expected surplus is given by the *rhs* of (O_{E_I}) and (O_{E_S})

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respectively for $m = I, S$.

$$-c_s + \frac{\lambda \left(e_h^* + e_l^*\right)}{2} \geq \max \left[\lambda e_l^*, \frac{\lambda \left(e_h^* + e_l^*\right) - \left(2c_s + c_\varepsilon\right)}{2}\right] \text{ for } m = I \qquad (O_{E_I})$$

$$-c_s + \frac{\lambda \left(e_h^* + e_l^*\right)}{2} \geq \max \left[\lambda e_l^*, \frac{\lambda e_h^*}{2}\right] \text{ for } m = S \qquad (O_{E_S})$$

Mimicing the analysis behind (O_D), it is easy to verify that the obedience constraints (O_{E_I}) and (O_{E_S}) are satisfied if E_m is strong such that

$$\lambda \geq \frac{2c_s}{e_h^* - e_l^*}$$

Summarizing, we find the unique equilibrium to the two-sided advocate game is for both advocates to act obediently. The mechanism M^{D_m, E_m} implements the optimal interventions at no cost to the firm and it provides expected surpluses of

$$\begin{aligned} D_m \left(M^{D_m, E_m}\right) &= \frac{\lambda \left(d_h^* + d_l^*\right) - c_s}{2} \\ E_m \left(M^{D_m, E_m}\right) &= \frac{\lambda \left(e_h^* + e_l^*\right) - c_s}{2} \\ F \left(M^{D_m, E_m}\right) &= \bar{R} \left(d^*, e^*\right). \end{aligned}$$

■

7   References

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