

Cooperative Engagement and Management Practice: An Explanation of Hospital Medicare Charges

Brian W. Kulik
Hawaii Pacific University

Diamond J. Giacomelli
Robert Half International

Businesses face a growing threat from non-government organizations (NGOs). Recently, there has been interest in turning this threat into an opportunity by cooperatively engaging with NGOs. This paper proposes Cooperative Engagement Theory, tests it with Medicare charging data for COPD medical treatments from a sample of 100 hospitals extracted from the 2013 Centers for Medicare and Medicaid Services dataset, which inexplicably show wide variances across charges. Our regression results confirmed our hypothesis and lending support for Cooperative Engagement Theory. We discuss the implications of these results and lay out a plan for future tests of Cooperative Engagement Theory.

INTRODUCTION

Businesses face a growing threat from non-government organizations (NGOs) which have increased in power and stature with the emergence of the Internet. Recently, there has been interest in turning this threat into an opportunity for businesses by cooperatively engaging with, rather than fighting against, NGOs toward mutually-beneficial solutions. For example, Citibank's initial conflict with the Rainforest Action Network changed to cooperative engagement, which led to the Equator Principles that financial institutions can sign, committing them to making environmental impact a part of business loan decisions. Financial institutions, including Citibank, benefit because environmentally-responsible companies would be more attracted to apply to Equator-Principles signatories; the Rainforest Action Network benefits because it can show society that it is an effective, legitimate NGO that deserves individual donations. Of course, society also benefits from companies which are encouraged to behave in a more environmentally-responsible manner. Of course, the idea of engagement with society is not new; for example, Porter and Kramer (2006) proposed that companies should pursue mutually-beneficial cooperative, rather than singly-beneficial competitive, socially responsible business behavior. The problem with this approach, however, is that interacting with the millions of local and billions of global individuals in society can be overwhelming and costly for any business, even with the emergence of Internet-based social networks. Furthermore, individual members of society harbor an increasing distrust of businesses, so any action taken by a company might be taken as a fake public-relations manipulation scheme rather than sincere behavior. Interactions with NGOs, which exist to represent social interests, solve both of these problems: (1) there are far fewer relevant NGOs for the company's executives to interact with, and (2) NGOs have a much greater standing in society, so pro-active engagement with a relevant NGO would add much-needed

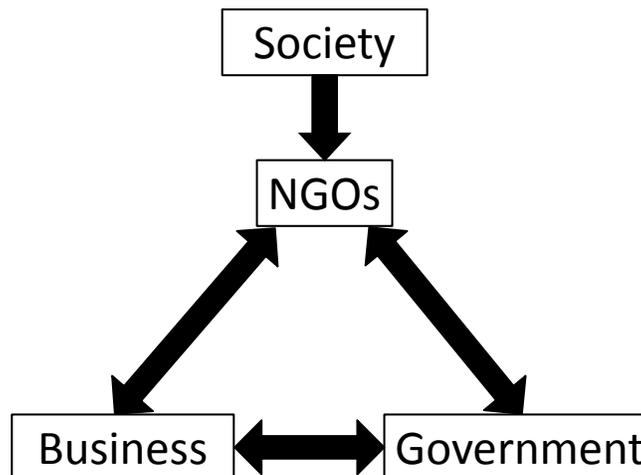
legitimacy to a business' actions if and when it does decide to act. In this paper, we formalize a simple theory of NGO engagement, and test the theory with Medicare charge data. We then discuss the implications of the results, limitations, and further steps required to build evidence for Cooperative Engagement Theory.

THEORY DEVELOPMENT

Cooperative Engagement Theory

We present our Theory of Cooperative Engagement in Figure 1 below:

FIGURE 1
COOPERATIVE ENGAGEMENT THEORY



According to Lawrence and Weber (2013), there are three (relevant) sectors of organization globally: civil society, business, and government. These authors make the general and recurring point that, if businesses cooperatively engage with government and society, then those businesses will become more responsible global corporate citizens; if, however, an engagement link is missing, this could lead to businesses, and/or governments, to behave irresponsibly. They argue that each sector has particular and different strengths which, when they collaborate, complement each other:

“Many businesses have realized that these differences across sectors can be a resource to be exploited. In this view, global action networks – alliances among organizations from the three sectors – can draw on the unique capabilities of each and overcome particular weaknesses that each has” (Lawrence & Weber, 2013, p. 132).

NGOs enter the picture as tangible representatives of specific social concerns and interests. Lawrence & Weber gave an example of the development of the Kimberly process as a positive example:

“Concerned that the image of diamonds around the world as a symbol of romance would be tarnished, the World Diamond Congress and the international diamond company DeBeers joined forces with the governments of nations with legitimate diamond industries and NGOs campaigning to end civil violence” (p. 132).

The result was the Kimberly Process, a system by which non-conflict diamonds could be tracked so that conflict diamonds could be kept out of the diamond supply chain. This positive solution could only have arisen from the positive collaboration between NGOs, governments, and businesses. In contrast, the authors offered the conflict coltan story as a negative example: electronics companies purchased conflict coltan from a mix of conflict- and nonconflict- organizations in the Congo. The businesses who purchased the coltan failed to cooperate with local nonconflict suppliers of the material, and as the Congo was in a state of civil war, the Congolese government was not available for engagement. As a result, companies avoided purchasing coltan from the Congo altogether, which greatly affected legitimate suppliers and increased the country's unemployment, resulting in harm to the Congolese population. The authors' point is that when, and only when, a cooperative triad is in place per Figure 1, society stands to benefit.

How would companies cooperate with NGOs? The answer is somewhat straightforward: with the types of activities that executives already practice on a daily basis. For the purpose of illustration, Mintzberg's (1989) study of executive activity is well-known and widely cited. In it, he describes 10 management roles across three categories. Speaking to the categories, the executive would use interpersonal types of roles to interact with NGO leaders and representatives, and then assume decisional-type roles to negotiate with internal organization members to arrive at revised decisions and actions that would be mutually beneficial for both society and the company – as long as relevant government organizations (GOs) are also brought into the executive's interpersonal interaction activities. In other words:

Proposition 1. Executives/business leaders will lead their businesses into cooperative engagements with NGOs and GOs through the same the same types of activities that they are already performing in the course of their normal business.

Given this proposition, it is logical to anticipate that cooperative business-NGO-GO engagement will increase relatively rapidly because if the executive business structure is already 'organized to exploit' (Barney & Hesterly, 2009) the engagement activity with existing competencies and organizational structures.

A more complicated answer should be crafted for the question: If companies have not traditionally engaged CEOs, *why do so now?* Burgos (2013) answers that (1) NGOs are more familiar with the concerns, problems, and solutions to societal issues; (2) civil society trusts NGOs more than corporations, so to arrive at constructive, responsible decisions and actions that are perceived to benefit society, executives must engage in and seek the approval of NGOs that represent the interests of society; (3) the confrontation-based alternative could result in a public relations disaster for the firm; (4) it is easier to get budget approvals when executives can show that money will be spent on win-win solutions with NGOs and society; (5) the company can realize long-term economic benefits from the cooperative engagement; (6) since the advent of the Internet, NGOs are much more powerful and legitimate [suggesting that stakeholder theory, per Donaldson & Preston (1995), would predict that businesses are primed for cooperative engagement]; (7) community goodwill is increasingly important for companies to obtain, and cooperative engagement is an important means by which community goodwill can be obtained; (8) unrealized business opportunities emerge when cooperative engagement is realized; (9) many businesses constructively engage NGOs and governments already, so cooperative engagement theory merely describes a phenomenon that is occurring in society already; and (10) it is really only a minor – but important – modification of what Porter & Kramer (2006) have already proposed and as we discussed above. When taken in total:

Proposition 2. Businesses and their executives will be motivated to cooperatively engage with NGOs and GOs to contribute to solving society's problems because they stand to benefit from the engagement.

As there are generally two types of benefits that every corporation seeks, we have two corollaries:

Corollary 1. Constructively-engaged businesses will be more efficient than they would be if they had not been constructively engaged.

Corollary 2. Constructively-engaged businesses will be more effective than they would be if they had not been constructively engaged.

When taken together, these corollaries imply:

Corollary 3. Constructively-engaged businesses will exhibit higher levels of financial performance than they would be if they had not been constructively engaged.

This third corollary is of critical importance, because it suggests that firms can use cooperative engagement as a tool for competitive advantage to realize higher financial returns than their competitors. Therefore, companies may not only be motivated to cooperatively engage with NGOs and GOs, they may be in competition with their industry rivals for that engagement, for example, as an exclusive engagement representative for the industry, much like there are competitions for exclusive long-term supplier agreements in some industries. The infusion of strategic importance into cooperative engagement theory would indeed serve as a very strong motivator. We now turn to the development of a specific test of Cooperative Engagement Theory with a statistical analysis of the Medicaid Database.

The Medicaid Database

In May, 2013, the Centers for Medicare and Medicaid Services released data for the first time, causing widespread confusion as to the cause of the wide variance in charges for the same type of medical treatment, even for hospitals virtually across the street from each other. For example, the *New York Times* (Meier, McGinty, Creswell, May 8, 2013) published a front-page article on the subject, who, after interviewing hospital industry experts, stated:

“... the hospital finance expert ... said that private insurers negotiated rates with hospitals that were typically about 30 percent above what Medicare pays. He understands that hospitals will often charge above the Medicare rate, but he said the huge premiums at some hospitals make no sense.”

In other words, profit margin markups could not, alone, explain the difference in the wide variances that hospitals bill Medicaid for the same type of medical treatment. However, industry experts could not otherwise explain the wide variances in Medicare charges.

We propose that part of this variance can be explained by cooperative engagement theory. That is, the more a hospital engages with NGOs, the more the hospital will tend to charge less. Whether the hospital is a for-profit business or non-profit business (on the left-hand side of Figure 1), or an extension of a government organization (on the right-hand side of Figure 1), Cooperative Engagement Theory predicts that, as hospital members interact with NGOs relevant to a particular medical procedure, hospital individuals will be made aware of the concerns of the individuals who undergo that treatment. For example, the more a hospital engages with the American Heart Association (AHA), the more it will understand the concerns of the public, and as the rising costs of health care are one of the public's concerns, the AHA-engaging hospital will be more likely to charge less for heart-related medical treatments. In this paper, we will test the relationship between the amount hospitals charge for Chronic Obstructive Pulmonary Disease (COPD) procedures and lung-health-relevant NGOs:

According to the American Lung Association (ALA), COPD is actually a general classification of two diseases, emphysema and chronic bronchitis. The ALA claims that COPD is preventable and treatable, yet it is the third-leading cause of death in the United States (see www.lung.org). Recovery from COPD includes respiratory therapy and medication. Therefore, given that COPD is treatable, better-performing hospitals should, on average, exhibit lower death rates:

Hypothesis. Engagement with lung health-related NGOs will cause hospitals to charge less for COPD treatments, closer to the cost of the treatment.

METHOD

Observations

There are three types of COPD charges in the Medicaid dataset:

- 190: COPD with major complication or comorbidity,
- 191: COPD with complication or comorbidity that is not major, and
- 192: COPD without complication or comorbidity.

Of the 163,072 dataset entries, we isolated the COPD entries – 8,105 entries – and eliminated the hospitals that did not have entries for all three types of diagnosis. Our reasoning was that, for hospitals with only two entries, say 190 and 191, some of these diagnoses may have been misclassified because one (or more) of the possible diagnoses were missing. We were left with 7125 entries, or 2375 hospitals, with entries in all three categories. From these 2357 hospitals, we chose a random sample of 100 hospitals and, using code 190 (the code with the highest average charge because these were charges associated with the most seriously sick patients) as the dependent variable, we added to each hospital observation/dataset entry the following control variables:

- *Distinctions.* Hospitals differentiate by the number of awards and accreditations they have received; the implied message is that ‘better’, more patient-focused hospitals are associated with a greater number of distinctions. Therefore, distinctions might be expected to be a predictor of Medicare charges. Only distinctions that were directly related to patient care success were counted; ‘best places to work’ and other indirectly relevant distinctions were not.
- *30-day Mortality.* Healthgrades.com reports on actual and expected mortality rates for many Medicaid treatments/charges, and are considered a measure of hospital performance in that area. Hospitals that perform higher, with lower mortality rates, might justify raising their charges because of their ‘superior’ rate of success per the Healthgrade.com measure. We chose the longer-term 30-day mortality rate rather than the in-hospital mortality rate because we expected a greater variance from the longer-term rate that would be more dependent on quality of care.
- *Number of Licensed Beds.* We used this variable as a measure of hospital size. Most hospitals reported their bed counts on their web pages; for those that did not, we appealed to the US News database at health.usnews.com.
- *Business Structure.* As for-profit hospitals might be motivated more to manipulate the system with higher charges, leading to higher profits, we coded each observation as non-profit (including government-owned hospitals) or for-profit.

Independent Variable: COPD NGO Engagements

Hospital websites did not contain sufficient detail to measure actual executive/doctor-NGO/GO engagements, so we selected a representative proxy variable: the number of times that COPD-relevant NGOs were given as resources on the hospital’s website, the number of engagement events held in cooperation with a COPD-relevant NGO, and the number of COPD-relevant support groups scheduled to meet on the hospital website. Examples of COPD-relevant NGOs that we found at least mentioned on hospital websites are:

- Better Breathers Pulmonary Support Group
- American College of Chest Physicians - One Breath
- American Lung Association

- National Heart, Lung, and Blood Institute
- Global Initiative for Chronic Obstructive Lung Disease
- National Lung Health Education Program
- American Association of Cardiovascular and Pulmonary Rehabilitation
- Pulmonary Partners/Respiratory Support Group
- American Association for Respiratory Care
- COPD Foundation
- American Thoracic Society
- American Association for Respiratory Care

In addition, if a health encyclopedia was made available to the Internet user, this was counted as an NGO ‘engagement’, because it reflects an attitude that the hospital can help its patients by appealing to external sources, such as the ADAM Health Answers encyclopedia. This gave the initial appearance of uniformity across a number of hospitals, with the same figures, articles, and NGO resources listed, but we noted that each hospital’s informational database was reviewed and approved by a medical doctor at the hospital; at some hospitals, the NGO resources section had been deleted at the apparent discretion of the hospital’s reviewing doctor. For the Hospitals that authored their own COPD information, and organized their own COPD support groups, a “0” was assigned for the engagement variable.

RESULTS AND DISCUSSION

Statistical Results

In Table 1, we show the table of correlations, including averages and standard deviations. All correlations were shown to be relatively low, indicating independence between predictors, and suggesting that no single predictor variable might be, by itself, a significant predictor of COPD charges.

**TABLE 1
VARIABLE CORRELATIONS**

	Average	Standard Deviation	COPD 190	Beds	Engagements
COPD 190 Charges	\$ 29,120	\$ 22140			
Beds	244	164	-0.042		
Engagements	1.32	1.78	-0.038	1.46	
Distinctions	7.70	6.25	0.149	0.060	0.08

Table 2 shows the ordinary least-squares multivariate regression results, with control variables and predictor variable. The results indicate that the 30-day Mortality rate was not a significant predictor of Medicare charges, implying that there is no evidence to indicate that hospital charges vary by hospital performance on that medical treatment. The Distinctions and Non-Profit control variables were notable, with p-values at about 0.2, but non-significant. Perhaps a larger sample size might identify these variables as significant, even though the Non-Profit variable is binary. COPD NGO Engagements was significant – barely – at the 10% level, with a p-value of 0.10. This indicates support for Cooperative Engagement Theory, as the number of engagements was a (partial) significant predictor of COPD 190 Medicaid charges. Nearly as interesting is the very strong and negative relationship between the number of beds and Medicaid charges, with the results indicating that every additional licensed bed was associated with an addition of about \$2,250 in Medicaid charge, with a p-value of 0.003, indicating a strong relationship. This relationship is in the opposite direction that we predicted, and suggests diseconomies of scale, at least with respect to Medicaid charges. It may be that, the bigger the hospital, the more it is under pressure to cover its fixed costs with Medicaid charges, and as out-patient services become the dominant

source of revenues for efficiently-operating hospitals, a large number of beds may have become core rigidities at a rate that is remarkably consistent across hospitals.

TABLE 2
MULTIPLE REGRESSION RESULTS

Regression Statistics	
Multiple R	0.38
R Square	0.14
Adjusted R Square	0.10
Standard Error	21010.94
Observations	100

ANOVA					
	df	SS	MS	F	Significance F
Regression	5	7.03E+09	1.41E+09	3.185	0.011
Residual	94	4.15E+10	4.41E+08		
Total	99	4.85E+10			

	Coefficients	Standard Error	t Stat	P-value
Intercept	19969	8243	2.42	0.02
Distinctions	481.96	391.9	1.23	0.22
Beds	41.63	13.71	3.04	0.0031
COPD NGO Engagements	-2256	1368	-1.65	0.10
30-Day Mortality	79773	145844	0.55	0.59
Non-Profit	-6758	5317	-1.27	0.21

In our theoretical discussion above, we noted that hospitals might use NGO/GO engagement as a point of competition with other hospitals. In this context, our significant results suggest an explanation of the wide variance of Medicare charges: what we might be seeing is the result of the aforementioned competition, where the ‘losers’ in the industry are left out of the GO/NGO engagement activities. Left with little guidance and advice on proper charging procedures, these ‘losers’ are left to their own devices, which sometimes may result in the frequent, massive over-charging that we see in the Medicaid dataset.

The positive support for Cooperative Engagement Theory suggests that this practice of appealing to and engaging with relevant NGOs may soon become a general management principle. In that case, poor managers will be described as individuals who cut themselves off from NGO involvement and engagement, and effective-efficient managers as individuals who include relevant NGOs as part of a routine managerial decision-making process.

Limitations

This study was limited by the judgments required to arrive at an accurate count of distinctions and awards, as some hospitals included separate web-page lists, while others did not. The Engagement counts were also subject to rater judgment, and in any case, suffered from accuracy, as this proxy variable was not expected to be as accurate as a count of actual NGO/GO engagements. Furthermore, our exploratory study only tests one link of the triad at a time. We need future studies to test all three engagement links simultaneously. However, having said this, it is notable that our predictor variable was found to be significant – surely, a more accurate variable will indicate significance at an even higher level.

The two dominant limitations of the study were (1) we only studied one charge, among many in the Medicaid dataset, and (2) our sample size was only 100. We intend to correct for these shortcomings in a revision of this paper before it is submitted for publication.

Implications

Researchers and theorists should begin to acknowledge, as Burgos (2013) has, that cooperative engagement is emerging as an arena of competition (D'Aveni, 1994) that may be common across many industries. This new arena of competition could be studied as a separate area of study in the strategic management literature. What is needed, of course, is additional empirical tests of the theory. It may be possible, for example, that different industries engage with different types of NGOs, with varying degrees of (financial) success. The institutionalization of this theory for each industry must be understood in order for industry leaders to be most effective in implementing NGO/GO engagement strategies.

Further research might also take an interesting dark-side direction. As any ethically neutral business management tool can be used in an unethical manner for nefarious reasons, we wonder if this dark-side manipulation possibility might be operating here, among hospitals and in other industries, in this competitive arena. For example, some hospitals might attempt to 'trick' would-be patients browsing on the Internet with a number of "distinctions" in its list of awards that are not awards or distinctions at all – perhaps this type of deception could also be a partial explanation for the wide variance in hospital charges.

CONCLUSION

This study formalized Cooperative Engagement Theory and tested it with the generally mystifying Medicaid dataset. We hope that this exploratory study will be the beginning of the development of a field of study in which the veracity and boundaries of this theory are identified and drawn, using actual industry data as evidentiary sources.

REFERENCES

- Barney, J. & Hesterly, W. S. (2012). *Strategic Management and Competitive Advantage: Concepts* (4th Ed.), Upper Saddle River, NJ: Pearson.
- Burgos, S. (2013). Corporations and social responsibility: NGOs in the ascendancy. *Journal of Business Strategy*, 34(1), 21-29.
- D'Aveni, R. A. (1994). *Hypercompetitive rivalries: Competing in highly dynamic environments*. New York, NY: Free Press.
- Donaldson, T. & Preston, L. (1995). The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications. *Academy of Management Review*, 20, 65-91.
- Lawrence, A.T. & Weber, J. (2013). *Business and Society: Stakeholders, Ethics, Public Policy* (14th Ed.), New York: McGraw-Hill.
- Meier, B., McGinty, J. C. & Creswell, J. (May 8, 2013). Hospital Billing Varies Wildly, Government Data Shows, *N.Y. Times*, p. A1. Accessed online 11/2/2014: <http://www.nytimes.com/2013/05/08/business/hospital-billing-varies-wildly-us-data-shows.html?pagewanted=all>
- Mintzberg, H. (1989). *Mintzberg on management: Inside our strange world of organizations*. New York: Free Press.
- Porter, M. E. & Kramer, M. R. (2006). Strategy & society: The link between competitive advantage and corporate social responsibility, *Harvard Business Review*, 84(12), 78-92.