Dissertation Abstract

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Financial Misrepresentation

Antecedents and Performance Effects

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This doctoral thesis examines the influence of relative performance and managerial incentives on corporate financial misrepresentation, and then tests the relationship between misrepresentation and subsequent operating performance, including the moderating effects of change in board composition and Chief Executive Officer (CEO) turnover. Using a hand-collected data set from several archival sources of company records, the study includes a combination of estimation techniques, including categorical dependent variable and fixed-effect methods, all conducted using a matched sample of misrepresenting and nonmisrepresenting firms. The author draws several important conclusions from the empirical analyses. First, CEO incentive pay and poor relative performance increase the likelihood of misrepresentation. Second, misrepresentation impairs subsequent operating performance, although this negative effect can be partially offset by CEO replacement and increased board independence. The study advances our academic understanding of corporate misconduct and contributes to academic theory across research literatures, including strategic management, organization theory, and business ethics.

Keywords: *firm misconduct; financial misrepresentation; executive pay; firm performance; corporate governance*

At the organizational level, there can be an appreciable tension between the social objectives and the economic objectives of business—a tension representing an important but neglected research opportunity for scholars of strategic management and organization theory (Margolis &

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Walsh, 2003). Walsh, Weber, and Margolis (2003) observe that the very purpose of the Academy of Management is to foster research integrating both the social and economic objectives of our society.

Exploring this intersection requires an understanding of corporate misconduct, which lies at the very heart of the tension between economic opportunism and social progress. Both social and economic considerations require an improved understanding of the mechanisms involved in corporate misconduct. Furthermore, an improved theoretical grasp of organizational misconduct not only enhances our theoretical understanding of the relations between business and society but can also inform ongoing practical efforts to regulate or mitigate corporate misconduct.

This dissertation focuses on the antecedents and performance effects of corporate wrongdoing; specifically, my dissertation research examines the causes and outcomes of financial misrepresentation, a specific form of corporate misconduct. The central questions of this dissertation are as follows: (a) What makes some firms misrepresent their financial position? And, (b) What is the impact of misrepresentation on firm performance? In exploring these questions, I conduct several empirical analyses comprising two facets of a longitudinal study spanning approximately a 9-year time period, 1995 to 2004.

Several theoretical mechanisms are investigated. With respect to the *antecedents* of financial misrepresentation, I analyze the role of incentives, aspirations, and search, drawing on both agency theory and the behavioral theory of the firm. With respect to the *performance effects* of misrepresentation, I examine the negative impact on firm operating performance as well as the attenuating positive influence of several types of firm responses, focusing on the mechanism of organizational legitimacy loss and recovery.

I analyze a sample based on 919 restatements of accounting "irregularities" announced by 845 firms between January 1, 1997, and June 30, 2002, as identified by the General Accounting Office (GAO). These restatements are a "direct admission by managers" of misrepresentation (Agrawal & Chadha, 2005, p. 373), and although not all such restatements are criminally fraudulent, they have been considered a proxy for fraud (O'Connor, Priem, Coombs, & Gilley, 2006) and described as "ethics failures" (Staubus, 2005, p. 5) that indicate "severe shortcomings in both internal and external governance mechanisms" (Arthaud-Day, Certo, Dalton, & Dalton, 2006, p. 1121). The restatements I examine here represent major accounting rules violations that the GAO identifies as intentionally improper and constitute my observational measure of financial misrepresentation.

Theory: Antecedents and Outcomes of Financial Misrepresentation

Antecedents

Building on the behavioral theory of the firm, I argue that top management incentive compensation and poor organizational performance relative to aspirations each increase the likelihood of financial misrepresentation, and I find empirical support for these effects. I also show how similar predictions could be derived using an agency framework. In addition to the study's empirical contributions to our understanding of corporate misconduct, this research also has implications for theory. The analysis shows how traditional theoretical frameworks have been insufficiently nuanced because they implicitly assume that inducements produce only ethical, legitimate organizational actions. Explicitly allowing for misconduct, as done here, leads to drastically different theoretical predictions. My empirical results show that several factors—in this case, an organization's performance incentive structure and comparisons of organizational performance relative to aspiration levels—produce outcomes that are unanticipated, undesirable, and unethical.

Once we explicitly allow for the possibility that incentives can prompt misrepresentation, both agency and behavioral arguments lead to the same conclusion. In an agency model, the CEO balances the expected utility of misrepresenting versus that of being honest. To mislead, the weighted utility of undiscovered misrepresentation must exceed the combined utility of honest reporting and the weighted negative utility of being caught misrepresenting; the utility from undiscovered cheating must exceed utility of honesty. Assuming the performance effect from undiscovered misrepresentation exceeds the performance from being honest, then linear increases in incentives will increase the benefits of misrepresentation more than the utility of the honest outcome, thus increasing the likelihood of misrepresentation. Alternatively, a behavioral analysis may assume that managers prefer honesty but can succumb to sufficient temptation. In such a model, stronger incentives increase the temptation. In either case, I expect the likelihood of financial misrepresentation to rise with the strength of the incentive system. Thus,

Hypothesis 1: The proportion of chief executive officer (CEO) pay from stock options positively influences the probability of accounting misrepresentation.

Hypothesis 2: The proportion of CEO pay from bonuses positively influences the probability of accounting misrepresentation.

Cyert and March's (1963) behavioral theory of the firm argues that organizations strive to achieve their aspirations, and that firms with performance below aspirations search for ways to make performance exceed aspirations. The behavioral literature shows that a firm's aspirations adapt to two things: a firm's own past performance and a comparison to the performance of other firms. These reference points have been shown to impact organizational change, risk-taking, capital investment, and innovation, in a variety of different contexts.

However, as with the theoretical arguments for incentives, scholarly work on aspirations implicitly assumes ethical outcomes, ignoring the possibility that—in the process of problemistic search—firms may find and adopt improper actions as a solution. By excluding from consideration the possibility of unethical action, prior work on aspirations ignores an alternative way to make performance exceed aspirations: misrepresentation of reported performance. I argue that firms engaging in problemistic search may find misrepresentation a viable and readily available option for raising reported performance above aspirations.

Because such misrepresentation is a risky action, this argument parallels traditional arguments concerning aspiration levels and risk. Although firms with performance close to their reference points may hope to achieve aspirations via legitimate means, firms performing far below their aspirations may find few perceived legitimate solutions. Thus, the distance a firm performs below its reference points increases the likelihood of misrepresentation.

Hypothesis 3: For social relative performance values less than zero, social relative performance negatively influences the probability of accounting misrepresentation (i.e., the probability of misrepresentation will be highest for the lowest—most negative—values of negative social relative performance.

Hypothesis 4: For self-relative performance values less than zero, self-relative performance negatively influences the probability of accounting misrepresentation (i.e., the probability of misrepresentation will be highest for the lowest—most negative—values of negative self-relative performance).

In addition, March and Simon (1958) argue for a strong effect of simply dropping below versus rising above the aspiration point, regardless of how far one drops or rises. That is, firms define their performance in rough terms as either acceptable or unacceptable, and this dichotomy has substantial impact. Consequently, a discontinuity should occur where performance equals aspirations; the aspiration point divides the range of potential performance into two broad categories. Thus, when performance is above aspirations, the probability of financial misrepresentation should generally be less than when it is below.

Hypothesis 5: Having positive instead of negative relative performance negatively influences the probability of accounting misrepresentation.

Performance outcomes

How does revealed misconduct affect firms? Theory and empirical evidence indicate that discovered corporate misconduct has large detrimental aggregate consequences. However, with few exceptions (e.g., Baucus & Baucus, 1997), very little scholarly work has been conducted to actually understand the subsequent performance effect of discovered misconduct at the firm level. Researchers have emphasized misconduct's antecedents, and any presumed effect of misconduct on firm performance is often only implied. Some existing empirical work (e.g., Agrawal & Chadha, 2005) indicates that stock returns are impaired but recover quickly.

I empirically demonstrate that discovered financial misrepresentation negatively affects a firm's ongoing *operating* performance. This negative relationship operates through several different mechanisms, many of which involve threats to the firm's legitimacy. Organizational legitimacy is "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (Suchman, 1995, p. 574). Such legitimacy is a fundamental element of firm viability. Much like firms who experience high-profile mistakes, accidents, or other organization-level crises, firms discovered in financial misrepresentation experience a serious legitimacy threat.

Financial misrepresentation can cause firms to incur direct financial costs, such as regulatory fines, civil or criminal penalties, restructuring charges, and class-action lawsuits. In addition, the loss of legitimacy can adversely affect the firm in indirect ways; for example, diminished legitimacy hurts firm competitiveness by alienating external constituents and stakeholders critical to the firm's success (Fombrun, 2001). Customer defection, higher costs of capital, tougher bargaining from suppliers, and less analyst coverage can all adversely affect the firm's operating performance. In addition, legitimacy loss can lower the effectiveness of the organization's internal functions and operations (Dutton, Dukerich, & Harquail, 1994).

These mechanisms for diminished performance—including both direct and indirect elements—lead to the same prediction: financial misrepresentation should negatively influence subsequent firm operating performance. Thus, Hypothesis 6: Discovered financial misrepresentation negatively influences subsequent firm operating performance.

Because building and maintaining organizational legitimacy can be critically important to firms, they must "engage in efforts to protect, repair, and enhance" that legitimacy when it is threatened (Ginzel, Kramer, & Sutton, 1992, p. 228). This can be especially true in the case of discovered misconduct, in which the legitimacy crisis is associated with organizational actions that are presumably intentional (Marcus & Goodman, 1991).

Research suggests that firms with tarnished legitimacy need to *decouple* the organization from the legitimacy threat. Restoration of legitimacy rests on assuring stakeholders—both internal and external—that past problems are not ongoing. In cases of repairing legitimacy loss due to misconduct or scandal, a key area of focus for substantive change is the firm's corporate governance structure. One of the structural pillars of corporate governance that is strongly touted both in the business press and in academic research is the presence of "independent" or "outside" members of the board of directors. A focus on director independence undergirds recent regulatory reforms like the Sarbanes-Oxley Act of 2002 and the recent changes to listing rules at the major U.S. securities markets, and board independence has been shown to boost the firm's credit rating among lenders—collectively indicating that many common stakeholders consider board independence important. Therefore, stakeholders should see increased board independence in the wake of financial misrepresentation as restoring some of the firm's lost legitimacy. Thus,

Hypothesis 7: Increasing board independence ameliorates (makes less negative) the negative relationship between revealed misrepresentation and subsequent firm operating performance.

Firms may also respond to legitimacy loss by replacing their chief executive. Although lower-level employees can also serve as organizational scapegoats, organizations are generally seen as reflections of their top managers (Hambrick & Mason, 1984), and therefore executives commonly receive most of the blame for undesirable corporate actions or results. For example, stakeholders often blame top managers for poor firm performance (Boeker, 1992; Suchman, 1995), even when such blame is unwarranted (Walsh & Seward, 1990). CEO replacement as a response to misconduct either directly punishes the CEO for the executive's own unethical behavior, or symbolically shifts blame to an executive who may not be entirely blameworthy. Regardless, replacing the executive is, at the very least, a symbolic gesture that can serve as a restorative legitimacy signal. Indeed, a recent study (Arthaud-Day et al., 2006) finds that firms with restatements replace their CEOs more than twice as often as other firms; changing leadership signals that the "current" organization differs from the organization that caused the scandal. I argue, essentially, that this tactic works; replacing the CEO reduces the reputational damage the firm suffers. Thus,

Hypothesis 8: Changing CEOs ameliorates (make less negative) the negative relationship between revealed misrepresentation and subsequent firm operating performance.

See Figure 1 for a visual representation of the hypothesized model.

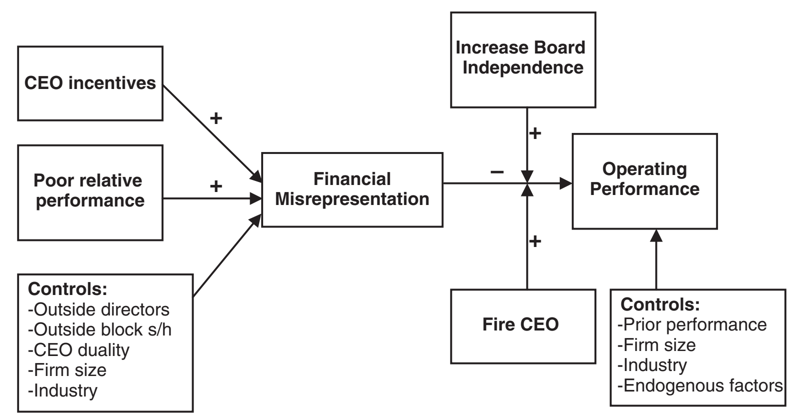
Data, Research Design, and Methodology

Starting with a list compiled by the GAO of all firms with restatements from accounting irregularities announced between January 1997 and June 2002, I employ a matched sample research design as a substitute for a random sample (Arthaud-Day et al., 2006; Hambrick & D'Aveni, 1988). I matched each restating firm with a firm in the same four-digit standard industrial classification code industry with similar sales in the year before the restatement; the final sample contains 435 misrepresenting firms and 435 matching firms. Differences between the restating and matching firms are not statistically significant.

The data come from several sources. Financial data come from Compustat. Compensation data come from Standard & Poors Execucomp where available, with the majority of the compensation observations collected directly from firm proxy statements using the EDGAR and LEXIS-NEXIS databases. I identified the specific dates for the year of restatement from press reports and filings in the EDGAR database. The governance control variables in the first model (e.g., board membership and institutional investment presence) as well as moderating variables in the second model (e.g., CEO replacement and board independence) also come directly from firm proxy statements.

I estimate the model *predicting* misrepresentation using a conditional logit, a standard procedure for estimating models with matched case-control samples and zero to one dependent variables. Conditional logit estimates a logit with a fixed effect for each matched pair. Although the matched sample research design inherently controls for a variety of factors

Figure 1
Theoretical Model of Hypothesized Relationships



such as firm size and industry, I include an additional control for variance in size, and also control for a variety of governance factors, including board independence and the equity involvement of large institutional investors. Specification tests confirm the validity of the estimation, and robustness checks confirm the results. I also perform a post-hoc analysis investigating the nonlinear properties of the predictive variables.

In the model examining the *performance effects* of misrepresentation, I retain the fixed effects for each matched pair, only this time with misrepresentation as the predictor. To control for endogeneity and other econometric challenges associated with lagged variables, this estimation is a change model (i.e., the dependent variables, moderators, and controls are all difference variables); firm-specific endogenous factors disappear in the differencing. In addition, this distinguishes the performance *effects* of the misrepresentation from performance-related *predictors* of the misrepresentation, as shown in the first analysis.

Results

Essentially all of the hypothesized relationships are confirmed in the data. The percentage of CEO compensation comprised by stock options positively influences the likelihood of financial misrepresentation; moving from zero to 100% of pay via options more than doubles the probability of subsequent misrepresentation. In addition, the distance of a firm's performance below that of its industry reference group increases its likelihood of subsequent misrepresentation; moving from the industry reference point to 0.5 below the reference point increases the probability of misrepresentation to more than 40% in a subsequent 5-year period. Furthermore, these effects appear to be nonlinear. The probability of misrepresentation remains low for most levels of stock option pay, then rises rapidly when options exceed 76% of CEO compensation—a level reached by one third of the sample. Firms at the top end of this ratio exhibit a 21% probability of misrepresentation in a subsequent 5-year period. Performing more poorly than the industry reference group also exhibits a nonlinear influence; the predicted probability of misrepresentation rises rapidly when the firm's performance falls more than 20% below the industry average. Furthermore, these strong effects persisted even in the presence of abundant controls for corporate governance. None of the traditional measures of "good governance"—institutional equity holdings, board independence, separation of CEO and board chair roles, and so on—had any impact on making the financial misrepresentation less likely.

The results also show strong statistical support for the negative influence of financial misrepresentation on subsequent firm operating performance, and also show support for two factors that serve to mitigate this negative relationship: increased board independence and CEO replacement. In all three cases, the effect size is also substantial; firms with the sample mean value of return on assets (ROA) in the initial condition of 12% experience a drop in ROA of more than 5% on the same scale, decreasing accounting returns by nearly half. Yet offending firms who increase board independence or replace their chief executive can substantially offset that performance loss, as compared to firms that do not make such changes. When these mitigating factors are considered in conjunction with the results from the predictive model, this highlights an irony; although stakeholders substantially reward increased board independence in firms that are responding to a scandal, the predictive model indicates that board independence has no effect whatsoever at preventing the misconduct in the first place.

Conclusions

This dissertation, comprising two empirical studies on the topic of financial misrepresentation, accomplishes several things. First, and most specifically, it explores a pervasive form of corporate misconduct and illustrates the importance of understanding this phenomenon. Its prevalence, its unexpected encouragement by several organizational and environmental factors, and its unanticipated and undesirable impact on individual firms, all highlight the importance of better understanding its antecedents and consequences. Second, the work contained in these chapters contributes to our understanding by yielding two salient, integrative insights that have implications for both theory and practice.

Theory needs to explicitly account for the mechanisms of misconduct. One lesson from these empirical and theoretical explorations is that our academic theories must make explicit their moral components. The problem with sidestepping or ignoring moral components of management theory is that such "misspecified" academic theories can become self-fulfilling (Ferraro, Pfeffer, & Sutton, 2005) in potentially adverse ways (Ghoshal, 2005). This dissertation certainly supports that notion; the first study in this thesis suggests that we need to rethink our theoretical frameworks to explicitly include their ethical implications. We need to rethink executive pay. We need to rethink the presumed "virtuous" cycle of aspiration and search. We need to rethink the role of corporate governance in preventing misconduct—both in terms of what we *suppose* matters and what really matters. As theorists and empiricists, we need to reformulate our academic prescriptions in a way that helps practitioners and managers develop practical managerial approaches that integrate notions of social good and morality.

Ethics lapses diminish firm-level profitability. Another insight from this dissertation is its findings on the interplay between business ethics and firm performance. Whereas the primary body of research exploring this intersection has comprised a largely inconclusive 30-year search for a positive connection between corporate social responsibility or philanthropic efforts, and firm financial performance (Barnett & Salomon, 2006; Griffin & Mahon, 1997; Ullman, 1985), the second study focuses on the impact of firms' ethical or unethical behavior, rather than examining corporate charitable activity. The analysis finds strong support for what is essentially the photographic negative of the shopworn axiom "doing well by doing good"; the data confirm that firms "do worse by doing bad." Unethical firm actions lead to decreased legitimacy and impaired performance, and this detrimental impact is observable not only in stock price fluctuations, as others have shown, but also in the sustained diminished operational profitability of the firm. In addition to firms' moral obligations to pursue ethical practices, this analysis shows that firms have an instrumental interest in preventing corporate misconduct.

On the heels of summarizing these two primary insights, it is worth noting that foundational scholars in management have never shied away from discussing the ethical implications of their work. Chester Barnard (1968, pp. 282-296), Kenneth Andrews (1980, pp. 89-102), Kenneth Arrow (1974, pp. 65-79), Michael Porter (1980, pp. xviii), and Adam Smith (1982) all discussed ethical ideals as boundary conditions to business activity. So on one hand, I have proposed that this dissertation extends current management theory. On the other hand, the insights from this dissertation merely support some of the foundational ideas underlying management and capitalism itself. Yes, business is about competition. But it is about competition within a set of accepted norms of ethics that preclude misconduct and cheating. Friedman (1970) famously argued that firms are not morally obligated to do philanthropic work—a statement often invoked to support the specious claim that commerce does not contain moral elements—but he also made clear his respect for the "rules of the game" and ethical fair play (Friedman, 1962, p. 15).

As shown in this dissertation, unfettered incentives can constitute an incentive to falsify financial statements, and in turn, stakeholders recognize that such behavior is unacceptable. Viewed this way, the findings encapsulate the view that business ethics and strategic management collapse into the same enterprise.

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