Overview of COSO Research Study


by
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Agenda

• About COSO and its Mission
• Purpose of Research Study
• Research Approach
• Findings and Insights
• Next Steps
About COSO

• Formed in 1985
  ▫ To sponsor the National Commission on Fraudulent Financial Reporting (i.e., Treadway Commission)

• A voluntary private sector organization

• Sponsors:
  ▫ American Accounting Association (AAA)
  ▫ American Institute of Certified Public Accountants (AICPA)
  ▫ Financial Executives International (FEI)
  ▫ Institute of Management Accountants (IMA)
  ▫ The Institute of Internal Auditors (IIA)
“to provide thought leadership through the development of comprehensive frameworks and guidance on enterprise risk management, internal control and fraud deterrence designed to improve organizational performance and governance and to reduce the extent of fraud in organizations.”
1987: Treadway Commission Report

1992: Internal Control Framework

1996: Internal Control Issues in Derivatives


2000: Enterprise Risk Management Framework

2004: Guidance for Smaller Businesses on Internal Control over Financial Reporting

2009: Guidance on Monitoring Internal Control Systems

2009: ERM Thought Papers

2009: ERM Thought Papers
Purpose of Current Study

• Update understanding of fraudulent financial reporting since 1997

• Same team of researchers as 1999 study – plus Terry Neal and 19 graduate students

• Examine findings for insights relevant to financial reporting for U.S. public companies
  ▫ Benchmark with similar no-fraud firms
Research Approach

• Identified fraud cases from SEC’s AAERs
    • 1,759 AAERs analyzed
  ▫ Rule 10-b(5) or Section 17(a) violations
  ▫ 347 companies allegedly involved in fraud, versus 294 in 1987-1997

• Analyzed AAERs for information
  ▫ Nature of fraud – size, technique, length, etc.
  ▫ Individuals involved – titles, motivations, etc.

• Gathered information from F/S, proxies, and press
Research Approach

- Matched fraud companies with similar no-fraud companies (year, exchange, industry, size)
  - Compared governance characteristics
    - Board, audit committee, compensation committee
    - Auditor characteristics
  - Compared subsequent consequences
    - Subsequent impact to companies
    - CEO and CFO turnover, indictments, convictions
Key Findings

• Nature of Fraud Companies
  • Median assets and revenues just under $100 M
  • Median close to breakeven prior to fraud
  • Stock trading – 50% on NASDAQ
  • Variety of industries
**Table 1: Financial Profile of Sample Companies (in $000’s) Last Financial Statements Prior to Beginning of Fraud Period**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Assets</td>
<td>$5,771,693</td>
<td>$93,112</td>
</tr>
<tr>
<td>Revenues</td>
<td>$2,557,298</td>
<td>$72,360</td>
</tr>
<tr>
<td>Stockholders’ Equity</td>
<td>$1,000,508</td>
<td>$39,457</td>
</tr>
<tr>
<td>Net Income</td>
<td>$140,097</td>
<td>$875</td>
</tr>
<tr>
<td>Cash Flow From Operations</td>
<td>$246,332</td>
<td>$317</td>
</tr>
</tbody>
</table>
Table 2: Sample Companies’ National Stock Exchange Listing
(n = 313 with Available Information)

Sample Companies’ National Stock Exchange Listing

- 23% New York Stock Exchange
- 23% American Stock Exchange
- 50% NASDAQ
- 4% Electronic bulletin boards, pink sheets, and other over-the-counter markets
Table 3: Primary Industries of Sample Fraud Companies

Primary Industries of Sample Fraud Companies

- Computer hardware/software: 20%
- Other manufacturing: 9%
- Healthcare and health products: 3%
- Retailers/wholesalers: 6%
- Other service providers: 7%
- Telecommunications: 6%
- Energy and natural resources: 7%
- Financial service providers: 11%
- Insurance: 9%
- Real estate: 1%
- Miscellaneous: 1%
- Not available: 1%
Key Findings

• Alleged Perpetrators
  • 89% of cases – CEO and/or CFO named
  • Motivations include meeting expectations, concealing deteriorating financial condition, preparing for debt/equity offering
Table 5: Types and Frequencies of Individuals Named in AAERs

<table>
<thead>
<tr>
<th>Role</th>
<th>Current Study</th>
<th>COSO's 1999 Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO</td>
<td>70%</td>
<td>70%</td>
</tr>
<tr>
<td>CFO</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td>CEO and/or CFO</td>
<td>90%</td>
<td>90%</td>
</tr>
<tr>
<td>Controller</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>COO</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Other VPs</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>Lower Level</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>No titles given</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Other titles</td>
<td>10%</td>
<td>10%</td>
</tr>
</tbody>
</table>
Key Findings

• Nature of Fraud
  • Median fraud $12 M, mean fraud $400 M
  • Average length about 2.5 years, median 2.0 years
  • 61% involve revenue recognition
    • Variety of techniques – fictitious, premature
  • 51% overstated assets
    • Overvaluing existing assets (often inventory and A/R)
    • Capitalizing expenses
  • Misappropriation of assets – 14%
  • Most precede SOX due to AAER time lag
### Table 9: Common Financial Statement Fraud Techniques

<table>
<thead>
<tr>
<th>Methods Used to Misstate Financial Statements</th>
<th>Percentage of the 347 Fraud Companies Using Fraud Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improper revenue recognition</td>
<td>61%</td>
</tr>
<tr>
<td>Overstatement of assets</td>
<td>51%</td>
</tr>
<tr>
<td>Understatement of expenses/liabilities</td>
<td>31%</td>
</tr>
<tr>
<td>Misappropriation of assets</td>
<td>14%</td>
</tr>
<tr>
<td>Inappropriate disclosure</td>
<td>1%</td>
</tr>
<tr>
<td>Other miscellaneous techniques</td>
<td>20%</td>
</tr>
<tr>
<td>Disguised through the use of related party transactions</td>
<td>18%</td>
</tr>
<tr>
<td>Insider trading also cited</td>
<td>24%</td>
</tr>
</tbody>
</table>
Table 10: Number of Fraud Cases With Asset Accounts Misstated
Key Findings

- **Role of Board of Directors**
  - Overall, few major differences between fraud and no-fraud firms
    - Similar in size, percentage of outsiders, levels of ownership, CEO as Chair as no-fraud firms
    - Almost all fraud companies had audit committees with similar size and similar number of meetings as no-fraud firms
    - Most have compensation committees
  - Some differences opposite of expectations – financial expertise
  - Some statistical differences, but appear to have few meaningful differences
## Board of Directors

<table>
<thead>
<tr>
<th></th>
<th>Fraud Sample</th>
<th>No-Fraud Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Board members</td>
<td>7.7</td>
<td>8.0</td>
</tr>
<tr>
<td><strong>Type of Board member:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grey director</td>
<td>10%</td>
<td>12%</td>
</tr>
<tr>
<td>Outside director</td>
<td>60%</td>
<td>63%</td>
</tr>
<tr>
<td>Board members with accounting or finance expertise</td>
<td>11%</td>
<td>9%</td>
</tr>
<tr>
<td>Companies with at least 1 accounting or finance expert on Board</td>
<td>57%</td>
<td>51%</td>
</tr>
<tr>
<td><strong>Type of Board chair:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inside director</td>
<td>75%</td>
<td>70%</td>
</tr>
<tr>
<td>Number of Board meetings per year</td>
<td>7.7</td>
<td>6.6</td>
</tr>
</tbody>
</table>
## Audit Committee

<table>
<thead>
<tr>
<th>Category</th>
<th>Fraud Sample</th>
<th>No-Fraud Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existence of an audit committee</td>
<td>95%</td>
<td>98%</td>
</tr>
<tr>
<td># of individuals on audit committee</td>
<td>3.1</td>
<td>3.2</td>
</tr>
<tr>
<td><strong>Type of audit committee member:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outside director</td>
<td>84%</td>
<td>87%</td>
</tr>
<tr>
<td># of audit committee meetings per year</td>
<td>3.5</td>
<td>3.7</td>
</tr>
<tr>
<td>Percentage of audit committees with at least 1 accounting or finance expert</td>
<td>34%</td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td>Fraud Sample</td>
<td>No-Fraud Sample</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Existence of compensation committee</td>
<td>88%</td>
<td>94%</td>
</tr>
<tr>
<td># of individuals on compensation committee</td>
<td>3.1</td>
<td>3.2</td>
</tr>
<tr>
<td><strong>Type of compensation committee member:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outside director</td>
<td>85%</td>
<td>88%</td>
</tr>
<tr>
<td># of compensation committee meetings per year</td>
<td>3.3</td>
<td>3.2</td>
</tr>
</tbody>
</table>
Table 20: Related Party Transactions

<table>
<thead>
<tr>
<th></th>
<th>Percentage of Companies with Related Party Transactions Disclosed in the Proxy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fraud Sample</td>
<td>79%</td>
</tr>
<tr>
<td>No-Fraud Sample</td>
<td>71%</td>
</tr>
</tbody>
</table>
Key Findings

• Auditor Characteristics
  • Mostly Big N auditors
  • Higher percentage of fraud firm audit reports were unqualified opinion with explanatory paragraph
    • 56% for fraud firms vs. 36% for no-fraud firms
  • Limited analysis of SOX 404 reports
  • Rate of auditor changes surrounding fraud period twice the rate of change for no-fraud firms
  • Auditor named in 23% of fraud cases
    • 32 of 83 cases – auditor charged with violating anti-fraud statutes or aiding/abetting violators
    • Smaller auditors named more often
Table 21: Size of Audit Firms Issuing Reports

Fraud Companies
- Big Six/Four Auditor: 79%
- Next tier of 4 national firms: 15%
- Non-national firms: 6%

No-Fraud Companies
- Big Six/Four Auditor: 83%
- Next tier of 4 national firms: 12%
- Non-national firms: 5%
Table 23: Analysis of Section 404 Internal Control Opinions
(n = 22 company years)

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 404 opinion indicated effective controls</td>
<td>45%</td>
</tr>
<tr>
<td>Section 404 opinion indicated ineffective controls</td>
<td>45%</td>
</tr>
<tr>
<td>Original Section 404 opinion indicating effective controls was later restated to indicate ineffective controls</td>
<td>10%</td>
</tr>
</tbody>
</table>
## Table 25: Auditor Changes

<table>
<thead>
<tr>
<th></th>
<th>Fraud Companies</th>
<th>No-Fraud Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changed Auditors</td>
<td>26%</td>
<td>12%</td>
</tr>
<tr>
<td>No Change in Auditors</td>
<td>74%</td>
<td>88%</td>
</tr>
</tbody>
</table>

**26% Changed Auditors**

**12% Changed Auditors**
Key Findings

• Consequences
  • Variety of SEC sanctions – bars, fines, disgorgements
  • 16.7% average negative abnormal stock return on initial fraud announcement
    • 7.3% average negative abnormal stock return on announcement of government investigation
  • Fraud firms suffer higher rates of adverse financial outcomes than no-fraud firms – bankruptcy, delisting, material asset sales
  • CEO and CFO turnover for fraud firms much higher than no-fraud firms
  • Approximately 20% of fraud firm CEOs and CFOs were indicted, and over 60% of those indicted were convicted
Table 26: SEC Consequences Based on AAER Information (n = 347)
Table 28: Other Consequences to Company (n = 311)

<table>
<thead>
<tr>
<th>Subsequent Consequences</th>
<th>Percentage of Fraud Companies Affected</th>
<th>Percentage of No-Fraud Companies Affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bankrupt, liquidated, etc.</td>
<td>28%</td>
<td>13%</td>
</tr>
<tr>
<td>Involuntary stock exchange delisting</td>
<td>47%</td>
<td>20%</td>
</tr>
<tr>
<td>Material asset sales</td>
<td>62%</td>
<td>31%</td>
</tr>
</tbody>
</table>
Insights

• Continued efforts to prevent, detect, and deter fraud are warranted
• More research needed to understand control environment
  • e.g., Screening and oversight of senior executives, ethical rationalizations, leadership
• Closer examination of revenue recognition techniques and industry issues
• More research needed on organizational behaviors
  • Board of director processes
  • Psyche of fraud perpetrators
Insights

- Auditor issues
  - More research is needed to determine if there is any linkage between the occurrences of fraud and
    - Timing and nature of auditor changes
    - Issues triggering explanatory paragraph in audit report
  - More research to
    - Assist auditors in evaluations of the control environment, including the board of directors and senior management
    - Understand lessons learned from auditor involvement in 23% of cases where auditor is named

- More time to observe impact of SOX 404 reporting
Next Steps

• PDF free download from COSO website – www.coso.org
  ▫ Hardcopies for sale through AICPA

• Future COSO efforts
  ▫ Develop guidance dealing with the control environment
  ▫ Sponsor behavioral and other research

• Other questions and comments