# MANAGEMENT CONTROLS: THE ORGANIZATIONAL FRAUD TRIANGLE OF LEADERSHIP, CULTURE AND CONTROL IN ENRON

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*Almost faster than you can say mark-to-market accounting, management controls disappeared once Jeff Skilling became CEO of Enron. The rest is sad history and a shareholder's worst nightmare come true. These authors document the subversion of Enron's management controls and suggest the lessons managers can learn from the worst financial collapse in U.S. corporate history.*

The collapse of Enron has been described as offering the same sort of opportunity for reflection for the business community as the Challenger disaster did for the engineering profession or September 11 did for political scientists. This article draws on a vast database of public records, testimonies at the various Enron-related trials and insider accounts concerning Enron's rise and fall to answer the question: how did a sophisticated and comprehensive set of management controls fail to prevent and detect widespread and continued corporate-wide fraud, information manipulation and dishonesty.

# Introduction

Throughout the Enron post-mortem, financial accounting irregularities and the audacious use of special purpose entities for off-balance sheet financing purposes have been the focus of attention. Seldom acknowledged is the fact that Enron had in place a comprehensive, state-of-the-art and award-winning management control and governance system, and that during Richard Kinder's term as president from 1986 to 1996, Enron operated with a highly effective management control system.

This article focuses on the cultural environment surrounding Enron's management control systems, and the influence of a powerful-risk taking culture on Enron's controls. Robert Simons' work on management control underscores the need to incorporate culture in understanding management control systems. Research conducted by leading organizational psychologist Edgar Schein also suggests that a strong link exists between executive leadership actions and the nature of an organization's culture. Accordingly, in this article we highlight the critical role that leadership and culture play in the success and effectiveness of management control systems within organizations.

Enron provides a blueprint of how insufficient attention to changes in leadership and culture can undermine what, at least on the surface, appears to be a state-of-the-art management control system. While many companies may claim to have sophisticated management controls, the ultimate effectiveness of such controls is highly dependent on an organization's culture and leadership. The perversion of this control infrastructure under the leadership of Jeffrey Skilling offers vital lessons about the operation of management control systems in large, complex organizations. Understanding these lessons is crucial in ensuring that Enron's plight is not replicated.

# The collapse of Enron

Enron Corporation was born in the middle of a recession in 1985, when Kenneth Lay, CEO of Houston Gas Company, engineered a merger with Internorth Inc. The new company, which reported a first year loss of $14 million, consisted of $12.1 billion in assets, 15,000 employees, the nation's second-largest pipeline network, and a towering mountain of debt. Enron was a typical natural gas firm with all the traditional trappings of a highly leveraged, "old economy" firm competing in the regulated energy economy. Teetering on the verge of bankruptcy in its early years, Enron had to fight off a hostile takeover attempt. It also incurred embarrassing losses on oil futures, which its traders in New York covered up in their reports to the Houston headquarters. Its old economy strategy did not excite the stock market. This would change dramatically, however, during the 1990s, when Jeffrey Skilling replaced Richard Kinder as the CEO.

Richard Kinder, known throughout Enron as "Doctor Discipline", was both people and numbers oriented. He held a meeting in the boardroom every Monday morning where he interrogated every business unit leader, frequently challenging their strategic plans and numbers. He focused hawk-like on expenses, cash flows, and employee levels. Cash management was so important for Kinder that he gave all business group managers a budget target for cash flow and profits, with bonuses tied to meeting both targets. While Kinder demanded performance, he was also realistic, often telling business unit leaders who submitted overly optimistic proposals not to start "smoking our own dope." As well as demanding discipline with respect to numbers, he was also people oriented, creating a collegial, family-like environment, with a respect for all.

With the appointment of Skilling as CEO, Enron's culture would begin a radical transformation. By 2000 it had become "the star of the New Economy," emerging as a paragon of the intellectual capital company with an enviable array of intangible resources, including political connections, a sophisticated organizational structure, a highly skilled workforce of sophisticated financial instrument traders, a state-of-the-art information system and expert accounting knowledge. In 1999, Enron was named by *Fortune* as "America's Most Innovative Company," "No.1 in Quality of Management," and "No. 2 in Employee Talent." An army of scientists, business people and academics sat rapt as Skilling – "The #1 CEO in the USA" – proselytized at technology and leadership conferences across the United States about how Enron was not only embracing innovative theories of business but also making a lot of money doing so.

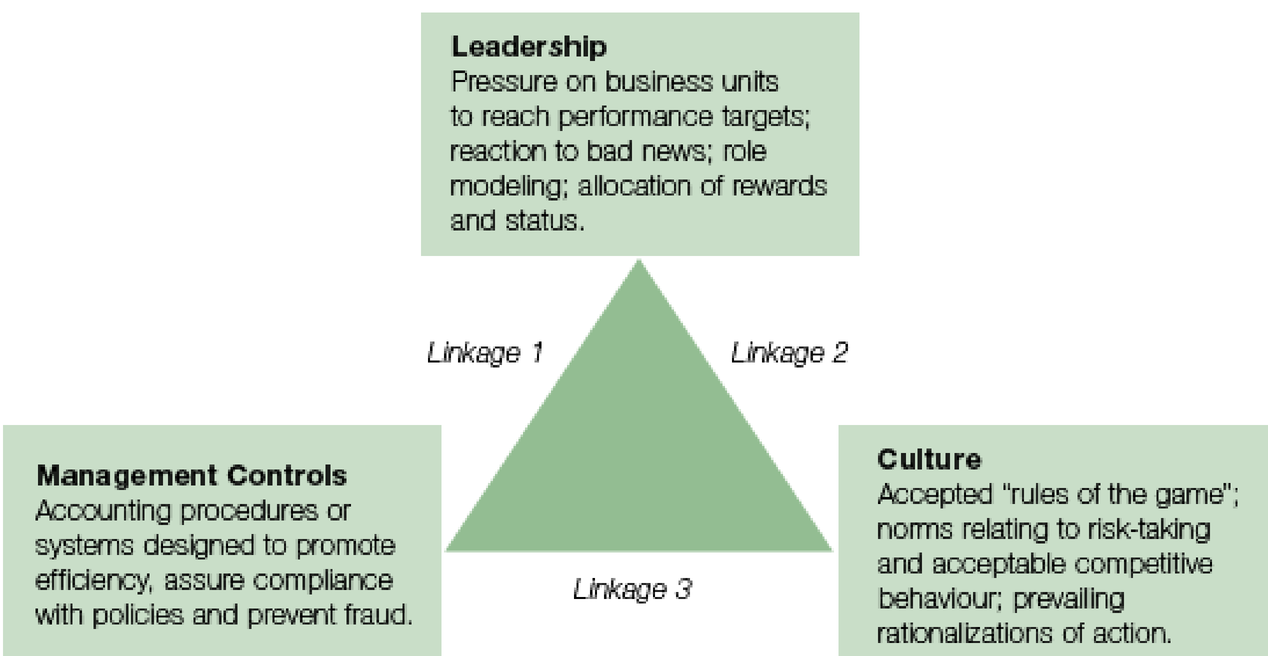
However, in late 2001 Enron announced that because of accounting errors it was reducing its after-tax net income by a total of over $1 billion and its shareholders' equity by $1.7 billion. On December 2, 2001, Enron, with assets of $63.4 billion, became the largest corporate bankruptcy in U.S. history, triggering a collapse in investor confidence and opening a Pandora's Box of issues relating to corporate governance, accounting and regulation.

Commentary on the Enron scandal has tended to focus on a number of financial reporting issues including auditor independence, special purpose entities (SPEs) and the appropriateness of its accounting. A host of solutions have been proposed with respect to these issues, including greater shareholder empowerment, shareholders' boards of trustees, privileging accounting principles over accounting rules, a reduction of outside regulation of accounting practices and requiring auditors to judge the substance of disclosure (and, of course, most notably the Sarbanes-Oxley legislation). However, the role of management control systems – and more importantly, the affect of leadership and culture on such systems – in the Enron collapse has largely been overlooked.

# The organizational fraud triangle

How fraud occurs within organizations can be understood by examining the elements that comprise such actions. At an individual level, SAS No. 99 (Consideration of Fraud in a Financial Statement Audit) issued by the Auditing Standards Board indicates that the occupational fraud triangle comprises three conditions that are generally present when a fraud occurs. These conditions include an incentive or pressure that provides a reason to commit fraud (personal financial problems or unrealistic performance goals), an opportunity for fraud to be perpetrated (weaknesses in the internal controls), and an attitude that enables the individual to rationalize the fraud. While the fraud triangle focuses on individual-level constructs of fraud, such as localized instances of cash or other asset appropriation by employees, the Enron example highlights fraud at the organizational level – systemic organization-wide fraud and corruption. At the organizational level, leadership, organizational culture and management control systems form the three points of the organizational fraud triangle shown below.

**Organizational Fraud Triangle**




The fraud triangle illustrates that the most important lessons from Enron lie in the way that a corporate culture championed by CEO Skilling overcame a sophisticated and widely lauded set of management controls and in the importance of carefully balancing the core concepts of leadership, organizational culture and control within organizations. Organization-wide fraud is only possible when these three variables are configured in a way that enables – and even fosters – manipulation and fails to prevent compliance failure. The linkages presented in the diagram above provide managers in other organizations important, yet largely untold, insights into Enron's demise.

# Linkage 1: Enron's sophisticated management controls at the time of its collapse

> **Controls form the cauldron in which Enron's innovative energies circulate (G. Hamel, *Leading the Revolution*, Harvard Business School Press)**

Management controls refer to the tools that seek to elicit behavior that achieves the strategic objectives of an organization, such as budgets, performance measures, standard operating procedures and performance-based remuneration and incentives. While Enron's demise has been portrayed as resulting from a few unscrupulous rogues or 'bad apples" (the phrase used by President Bush) acting in the absence of formal management controls, Enron featured all of the trappings of proper management control, including a formal code of ethics, an elaborate performance review and bonus regime, a Risk Assessment and Control group (RAC), a Big-5 auditor, and conventional powers of boards and related committees. This control infrastructure was widely lauded right up until the demise of the company.

The three core pillars of Enron's management control system were the risk assessment and control group, Enron's performance review system and its code of ethics.

**Risk Assessment and Control Group:** An integral part of Enron's management control system was the Risk Assessment and Control group (RAC). RAC was responsible for approving all trading deals and managing Enron's overall risk. Every deal put together by a business unit had to be described in a Deal Approval Sheet (DASH), which was independently assessed by RAC analysts. Deals required various levels of approval from numerous departments, including approval from the most senior levels, even from the board of directors.

**Enron's Performance Review System:** Another vital link in Enron's management controls was the Peer Review Committee (PRC) system. The intention of the PRC system was to align employee action with the company's strategic objectives, retaining and rewarding superior performers on a fair and consistent basis. Under the PRC system, every six months each employee received a formal performance review, based on formal feedback categories including revenue generation, and was assigned a final mark from one to five (the employee's photo was displayed on a screen). Feedback came from various sources including the employee's boss, as well as from five co-workers, superiors or subordinates that the employee selected. The bottom 15 percent, no matter how good they were, received a "5" which automatically meant redeployment to "Siberia," a special area where they had two weeks to try to find another job at Enron. If they did not – and most did not – it was "out the door."

**Code of Ethics:** Enron's code served as a behavioral control intended to prohibit a range of unethical behaviors. The code stressed the following four key principles: communication, respect, integrity and excellence, and included phrases such as "we treat others as we would like to be treated ourselves", "we do not tolerate abusive or disrespectful treatment" and "we work with customers and prospects openly, honestly and sincerely". The code, which each employee signed on joining Enron and annually re-affirmed, proved to be of wide interest – so much so that the political history division of the Smithsonian National Museum of American History acquired it for its permanent exhibit of exemplary business practices.

Enron also had in place the usual corporate governance mechanisms including a well-credentialed board of directors, an audit and compliance committee, a Big-5 external auditor (the ill-fated Arthur Andersen), an office of the director of financial disclosure, a chief risk officer's office, a finance committee, and the SEC's normal oversight. In sum, the control infrastructure within Enron was carefully designed, comprehensive and cutting edge. How this infrastructure was systemically subverted, marginalized and ignored under the leadership of Jeffrey Skilling offers key insights for practitioners and regulators alike.

# Linkage 2: Jeff Skilling's role in crafting corporate culture at Enron

> **By mid-2000, Jeff Skilling had achieved his goal: Almost all the vestiges of the old Enron … were gone. In its place, Enron had become a trading company. And with that change came a rock-em, sock-em, fast-paced trading culture in which deals and 'deal flow' became the driving force behind everything Enron did. (R. Bryce, *Pipe dreams: Greed, ego, and the death of Enron*, Public Affairs)**

As Edgar Schein argues, leadership is critical to the creation and maintenance of culture; there is a constant interplay between culture and leadership. Within companies, cultural norms arise and change due to what leaders tend to focus their attention on, their reactions to crises, their role modeling, and their recruitment strategies. Leader's visions provide the substance of new organizational culture. To understand how the management controls at Enron were subverted, we must not only recognize the nature of Jeff Skilling's tenure as company CEO, but also Enron's shift to a Wall Street-type options and futures trading firm (i.e., a financial engineering shop). Schein's leadership framework outlined in the diagram below charts how Skilling's agency was instrumental in creating an environment that came to pervade and degrade Enron's management controls.

Skilling's leadership style had emerged over a number of years. As early as high school Jeff Skilling held a reputation as not only a scholar, but one with a penchant for somewhat dangerous activities, a characteristic that resurfaced later at Enron. After thriving at the highly competitive Harvard Business School, where he excelled as a top scholar, Skilling joined the Houston office of McKinsey & Company, where his intellect and tenacity impressed many clients, among them Ken Lay.

Skilling impressed Lay when he proposed forming a "Gas Bank", which took advantage of the fact that the short-term demand and supply for gas was chronically out of balance. The idea proved an instant success and moved Lay to hire Skilling as head of its trading operations, Enron Finance Corporation (EFC). Eventually, in 1996, Jeffrey Skilling would replace Richard Kinder as the CEO of Enron. Under Skilling's reign as President and CEO, a very different management control style ensued and elements of Enron's culture and operations underwent a radical transformation.

**Schein's Culture-Embedding Mechanisms**

| Primary Embedding Mechanisms | Secondary Articulation and Reinforcement Mechanisms |
|---|---|
| What leaders pay attention to, measure, and control on a regular basis. | Organization design and structure |
| How leaders react to critical incidents and organizational crises. | Organizational systems and procedures |
| Observed criteria by which leaders allocate scarce resources. | Organizational rites and rituals |
| Deliberate role modeling, teaching, and coaching | Design of physical space, facades, and buildings |
| Observed criteria by which leaders allocate rewards and status. | Stories, legends, and myths about people and events. |
| Observed criteria by which leaders recruit, select, promote, retire, and excommunicate organizational members. | Formal statements of organizational philosophy, values, and creed. |

Within a few short years, Enron's business model shifted towards a Wall Street-type financial engineering trading platform operating in energy futures but also expanding into financial commodities of all kinds. By 2000, trading operations accounted for 99 percent of income, 88 percent of income before tax and 80 percent of identifiable assets; reported revenue increased from $11,904 million in 1996 to nearly $100,000 million in 2000 – a tenfold increase. Enron morphed into a full-scale Wall Street trading corporation specializing in the financial engineering of derivatives, options and hedges involving commodities such as broadband, fibre optics and paper goods.

# Skilling's leadership style

Many Enron insiders have commented on Skilling's footprint on Enron's emerging organizational culture. Moreover, as outlined in the diagram below, Edgar Schein's leadership matrix highlights how Skilling's leadership was critical in fashioning an organizational culture valorizing risk taking, a mercenary approach to profit making and a win-at-all costs trading approach.

Skilling's leadership style and vision were evident in a number of characteristics and traits that exemplified Enron's culture. Skilling exercised control over almost all facets of the organization, particularly regarding its accounting procedures, which where designed to "massage" reported earnings in order to meet analysts' expectations. Earnings management was accomplished largely using special purpose entities (SPEs), accounting "reserves for contingencies" and mark-to-market accounting, which recorded profits from long-term deals immediately and, therefore, emphasized short-term results. These accounting maneouvres, used widely in the banking and finance industries, meant that to continue to increase reported earnings at its current rate, an ever-greater volume of deals were necessary. This form of "cowboy capitalism" put enormous pressure on the traders for short-term output.

**Schein's Culture Embedding Mechanisms at Enron**

| Primary Mechanisms | Reinforcement Mechanisms |
|---|---|
| Mercenary, profit-centred style of management focusing on stock price and earnings | Tight organizational hierarchy and structure |
| Social ridicule and removal of members who deviate from the culture, and strict information control | Organizational systems and procedures that restricted feedback |
| Performance and incentive system based on transaction volume and size, and profligate spending | Narcissism, highly visible consumption, and exaggerated claims |
| Charismatic role modelling, teaching, and coaching with an orientation to risk, as well as exaggerated self-promotion by Skilling | Design of physical space, facades, air planes and buildings, and an opulent lifestyle led by Skilling |
| The fostering of strong competition between organizational members, nepotism and favouritism for successful dealers, and a bonus regime allocated through negotiation | Myths, stories, legends of outstanding (and well rewarded) performance |
| Intense recruitment rituals, top down communication, Cronyism and group think and quick removal of members deemed not to fit in | Formal statements of organizational philosophy, values, and creed |

The importance of earnings in Skilling's leadership style is unmistakable, especially in the reactions to critical incidents and organizational crises. For instance, evidence emerged at Skilling's 2006 trial that Skilling and Richard Causey, Enron's chief accounting officer, had decided to change the numbers to meet the new analysts' consensus, which had risen from 30 cents to 31 cents. Accordingly, Wesley and Colwell, chief accountant of Enron's wholesale energy trading unit, transferred $7 million to a profit account from a reserve contingency account set up in a prior period as a reserve for possible future contract settlements.

Another critical trait of Skilling's leadership style was the importance of rewards and status. Compensation plans, a powerful shaper and emblem of Enron culture, had one purpose in mind — to enrich the executives, not to enhance profits or increase shareholder value. For stock option incentives, Enron added the condition that if profits and stock prices increased sufficiently, vesting schedules could be rapidly advanced, meaning executives could get their hands on the stock more quickly. Skilling handed out extremely large pay cheques, bonuses and stock options to traders who met their earnings targets; in 1999, Enron granted 93.5 million stock options compared with 25.4 in 1996. John Arnold, a gas trader, booked $700 million in 2001, took his $15 million bonus and left Enron. Lou Pai cashed $250 million in Enron stock over three years.

Skilling's leadership style also included deliberate role modelling, teaching and coaching, which involved exposing employees to exaggerated claims. In 2000, for instance, Enron draped a huge banner at its entrance, enjoining employees to engage in the process of transforming Enron "FROM THE WORLD'S LEADING ENERGY COMPANY – TO THE WORLD'S LEADING COMPANY." The pervasiveness of hype extended to the use of metaphors drawn from war, sport and extremism. On bonus day, upscale car dealers set up shop around the Enron headquarters building showing the latest most expensive Mercedes, BMWs, Aston Martins, Alpha Romeos and the like.

The final characteristic of Skilling's leadership style was borne out in how Enron recruited, selected and promoted employees. Skilling's shopping list for job candidate characteristics described a very smart, aggressive, glib extravert who could become a ruthless trader. Skilling hired only the "best and the brightest" traders, investment bankers, information and computer experts, programmers, and financial engineers, most of whom were graduates of prestigious universities. As part of his Analyst and Associates' Program, Skilling would annually hire from 250 to 500 newly minted MBAs from the top business schools in the country. Promotions and transfers came quickly, without providing time to learn industry details. Those who did not produce deals were quickly redeployed and soon after, often, terminated.

# Linkage 3: The Way in Which Corporate Culture Came to Subvert Management Controls at Enron

Skilling used numerous methods to reshape organizational culture in a way that celebrated attempts to exploit and "bend the rules," often through the subversion of management controls. Under Skilling, an extreme performance-oriented culture that both institutionalized and tolerated deviant behaviour emerged. The lauding of "creative risk-taking" and "revolution" led to not only stretching, but also circumventing and breaking legal and ethical boundaries. Resistance to bad news created an important pressure point on information sharing internally and externally. Fierce internal competition coupled with huge incentives led to private information, deceit and extensive efforts to bolster short-term performance. The culture that evolved under Skilling, and its impact on Enron's control systems, strategy and operating environment can perhaps best be understood by the comparison, as illustrated below, to that which existed under Richard Kinder.

As Enron entered market areas where it did not enjoy a comparative advantage, its mercenary corporate culture combined with the subverted control infrastructure meant that Enron lost its ability to keep track of relevant risks. Skilling was able to bring together a number of structural factors that enabled the Enron expansion and re-branding of its corporate image: deregulation, the high-tech investment bubble, enhancements in technological capabilities and a hungry and increasingly expectant investment community. Although there were favourable developments in Enron's institutional environment, Skilling largely brought these elements together in a cohesive package and promoted a culture celebrating creative deal making, innovation, entrepreneurship and mercenary practices.

The PRC system, meanwhile, worked to encourage private networks of loyal employees who gravitated towards powerful players for protection. Even though very knowledgeable risk management personnel staffed the RAC Group, over time they became increasingly reluctant to turn back projects that looked bad, since the corporate ethos held that the driving force of its business model was its ever-growing flows of deals. Rejecting them often meant "political death" for RAC members since the project proposal people could lose their bonuses and so would take revenge during the PRC process. Moreover, they were not inclined to reject proposals for fear of real repercussions from Skilling.

As former employees Peter Fusaro and Ross Miller highlight in *What Went Wrong at Enron: Everyone's Guide to the Largest Bankruptcy in US History*, Enron's 'rank-and-yank' machinations created "an environment where employees were afraid to express their opinions or to question unethical and potentially illegal business practices. Because the rank-and-yank system was both arbitrary and subjective, it was easily used by managers to reward blind loyalty and quash brewing dissent." The PRC was a powerful mechanism for preventing the emergence of any subcultures that might run counter to the mercenary organizational tone set by Skilling's leadership.

**Differences between the Kinder Era and Skilling Era at Enron**

| | Kinder Era (1990-1996) | Skilling (1996-2000) |
|---|---|---|
| Strategy | Physical pipeline and gas exploration business with some energy trading | Financial engineering shop specializing in derivatives, options, futures and a wide spectrum of commodities |
| Management Control Systems | Personal, family-oriented, interactive, empowering | State-of-the-art controls in place but subverted and exploited |
| Operational priority | Cash flow and earnings targets | Volume of financial engineering deals |
| External Environment | Regulated energy markets | Deregulated energy and financial markets |
| Technology | Focused on Enron's hard assets | Focused on online trading of a range of commodities |
| Work force | Engineering-oriented | Finance-oriented |
| Accounting | Consistent with GAAP conventions for companies in the gas sector | Exploitative of GAAP complexities and ambiguities to create revenue and earnings |

Enron's bonus regime, a key mechanism aimed at aligning individual and corporate goals, exacerbated the competitiveness of the Skilling-designed PRC as employees used several tactics to manipulate the system. An important consequence of this, and one that would play a big role in Enron's demise was that traders started to push through over-valued deals. Sometimes they would change the price projections at the last minute before signing the contracts in order to favour their short-term trades at the expense of the originators' long-term contracts. Skilling's PRC had a Darwinian nature since it instilled a competitive streak in every employee.

Thus, the reality of Enron's business practices flew in the face of its Code of Ethics. By mid-2006, some sixteen Enron accounting and finance managers, including CFO Andrew Fastow, had pleaded guilty to various criminal offences, including fraudulent accounting practices and manipulating quarterly earnings reports. The contrast between Enron's moral mantra and the behaviour of some of its executives was startling.

What Enron clearly demonstrates is that once employees align themselves with a particular corporate culture – and invest heavy commitment in organizational routines and the wisdom of leaders – they are liable to lose their original sense of identity, and tolerate and rationalize ethical lapses that they would have previously deplored. Once a new and possibly corrosive value system emerges, employees are rendered vulnerable to manipulation by organizational leaders to whom they have entrusted many of their vital interests. The Enron demise, then, points to numerous risks associated with degenerate cultures: the risk that a culture motivating and rewarding creative entrepreneurial deal making may provide strong incentives to take additional risks, thereby pushing legal and ethical boundaries; resistance to bad news creates an important pressure point of culture; and internal competition for bonuses and promotion can lead to private information and gambles to bolster short-term performance. At Enron, these risks ultimately subverted the company's elaborate web of controls.

# Lessons for Managers

Enron offers a number of important insights for managers. Firstly, it underlines the vital role of top management leadership in fostering organizational culture. The footprint of Jeffrey Skilling is conspicuous in all accounts of Enron's organizational culture. Enron's plight also highlights the vulnerability of rank and file employees to prevailing cultural norms, morals and sanctions. Particularly in the absence of counteracting forces or dissenting opinions, increasing identification with an organization's cultural values is likely. Andy Fastow, the former chief financial officer of Enron, responded to a scathing cross-examination by stating, "Within the culture of corruption that Enron had, that valued financial reporting rather than economic value, I believed I was being a hero." During his trial, Mark Koenig, Enron's former head of investor relations, told jurors "I wish I knew why I did it. I did it to keep my job, to keep the value that I had in the company, to keep working for the company. I didn't have a good reason."

Secondly, within organizations, the impact of culture and leadership on even most the sophisticated management control system must not be overlooked or minimized. It is often too easy to consider cultural and management control systems separately, with cultural being a soft issue and management controls a hard one. Managers must always remember that a culture created through a reckless and overly aggressive leadership style can lead to individuals taking actions that can subvert even state-of-the-art management controls. Organizations need to distinguish more carefully between leadership styles such as that of Kinder, which expected high but fair performance and those that demand excessive and ultimately unattainable levels of performance.

Finally, the Enron saga speaks to the importance of not abandoning professional integrity. Perhaps, the most important lesson for managers to take away is to use personal cultural capital to find a working environment that matches one's personal values and principles. If they don't match, one should leave and find a company that does. As with the Challenger disaster in our epigraph, Enron should be a wake-up call for managers in all organizations.

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# Elucidating Corporate Governance's Role and Impact in Countering Fraud - In Print

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# Elucidating corporate governance's impact and role in countering fraud

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**Abstract**

**Purpose** – *This paper aims to highlight the role and impact of corporate governance in combating fraud by drawing on insights from the literature, identify gaps in the literature and suggest new directions for future research.*

**Design/methodology/approach** – *The paper is based on a comprehensive general literature review using multiple search engines and databases.*

**Findings** – *This paper finds that effective corporate governance can help reduce fraud risk, prevent fraud and detect fraud, particularly corporate fraud, insider fraud and asset diversion. Some companies use corporate governance mechanisms to bolster their reputation following fraud detection. Ineffective corporate governance increases fraud risk, provides the opportunity for perpetrating fraud and reduces the likelihood of fraud detection. The paper sheds light on several governance mechanisms that could help in mitigating fraud risk, as reported in the literature. The paper categorises these governance mechanisms into four broad governance aspects, including board leadership and the role of ethics; (b) board characteristics, composition and structure; ownership structure; accountability. The paper proposes a guide summarising these broad fundamental governance aspects, including specific anti-fraud controls and examples of how organisations could enhance ethical cultures and the tone at the top.*

**Originality/value** – *To the best of the author's knowledge, this is the first paper to elucidate the role of corporate governance in countering fraud and develop guidance in this area. The proposed guidance could be helpful to businesses leaders, policymakers, researchers and academics alike.*

**Keywords** *Corporate governance, Fraud, Accountability, Board leadership, Ethics, Board diversity, Controls and risk management*

**Paper type** *General review*

## 1. Introduction

Fraud has a detrimental impact on organisations and society beyond financial losses. Fraud deceives stakeholders and results in reputational damage for businesses and loss of shareholders' trust in corporate governance (Naruedomkul *et al.*, 2010; Tan *et al.*, 2017; ACFE, 2020). In some cases, fraud could result in the collapse of an entire organisation and loss of jobs and tax income. This was evident in high profile fraud cases such as Enron (Healy and Palepu, 2003) and WorldCom (Sidak, 2003) in the USA, Patisserie Valerie in the UK (O'Connell, 2019) and Wirecard in Germany (Storbeck, 2021).

The findings of recent research conducted by RUSI (2021)[1], the world's oldest and the UK's leading defence and security think tank, provide evidence that the harm caused by fraud to the UK population, economy and public funds represents a national security risk, making a compelling case for more prioritisation of fraud and the development of a national strategy to tackle it.

Research indicates that some fraud types, such as fraudulent financial reporting, could result in severe labour market penalties for executive and non-executive directors (Hoi and Robin, 2010) and lead to a higher likelihood of chairman and chief executive officer (CEO)

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dismissal (Azzali and Mazza, 2020). A global study by the Association of Certified Fraud Examiners (ACFE, 2020) reports that insider fraud, which is a fraud perpetrated against an organisation by its employees, directors or management (Wells, 2011), causes a total loss of more than $3.6bn annually. The ACFE study asserts that insider fraud is the costliest type and constitutes a significant threat to organisations. The enemy comes from within the organisations, which is unexpected and harder hitting than other fraud types.

Given its detrimental impact, academic research plays a crucial role in raising awareness about fraud and researching effective methods for countering it. Hence, the main aim of this paper is to elucidate corporate governance's impact and role in combating fraud. It also identifies gaps in the governance literature related to this area and suggests new avenues for future research. The paper is based on a comprehensive general review of academic sources, professional sources and policy reports.

This paper finds that effective corporate governance can help reduce fraud risk, prevent fraud and detect fraud, particularly corporate fraud, insider fraud and asset diversion. Some companies use corporate governance mechanisms to bolster their reputation following fraud detection. Ineffective corporate governance increases fraud risk, provides the opportunity for perpetrating fraud and reduces the likelihood of fraud detection. The paper sheds light on several governance mechanisms that could help in mitigating fraud risk, as reported in the literature. The paper categorises these governance mechanisms into four broad governance aspects, including the following:

1. board leadership and the role of ethics;
2. board characteristics, composition and structure;
3. ownership structure; and
4. accountability.

The paper develops a guide summarising these broad fundamental governance aspects, including specific anti-fraud controls and examples of how organisations could enhance ethical cultures and the tone at the top. The findings have implications for research and policymakers; later discussed.

This paper's main contribution is in its novelty, being the first to provide a comprehensive general review to elucidate the role of corporate governance in countering fraud. It is also the first to develop guidance on various corporate governance mechanisms that business leaders and policymakers can combat fraud. This guidance could benefit regulators aiming to introduce interventions to restore trust in corporate governance systems and businesses looking for ways to strengthen their corporate governance systems and mitigate fraud risk. It could also be helpful to researchers interested in corporate governance research and academics teaching corporate governance and aiming to embed anti-fraud education in the curriculum.

The rest of the paper is structured as follows. The following section describes the methodology used by the current study. Section 3 explains what corporate governance entails from the lens of the agency theory. Section 4 discusses the impact of corporate governance on fraud by drawing on insights from the literature. Section 5 elucidates and identifies the specific corporate governance mechanisms that mitigate fraud, as evidenced in prior research. Section 6 presents and discusses the main findings, identifies gaps in the literature and suggests new directions for future research. Finally, the paper ends with the conclusion and implications section.

## 2. Methodology

This study is based on a survey of the extant literature using multiple search engines and databases for locating academic research, textbooks and professional/regulatory reports exploring the link between fraud and corporate governance.

The databases used include Elsevier ScienceDirect, Emerald Insight, Springer Standard Collection, ProQuest ABI/INFORM Global, JSTOR, Wiley Online Library, EBSCOhost Business Source Premier, ProQuest, Sage Journals Management and Organisation Studies Collection Full Text Collection, IEEE Open Access Journals and Conferences, Taylor and Francis Open Access, Applied Social Sciences Index and Abstracts, ACM Digital Library, Allen Press American Accounting Association and Directory of Open Access Journals.

The search terms that initially guided the review included "fraud and corporate governance", "fraud", "fraud and abuse", "countering fraud", "fraud risk", "fraud risk mitigation". To identify relevant studies, paper titles, keywords, abstracts and primary texts were searched for these terms. Following the approach of prior studies (Grabski *et al.*, 2011; Moll and Yigitbasioglu, 2019), the review was not limited to a particular timeframe or journal list. However, attention was paid to papers published in leading accounting journals cited in the Association of Business Schools Academic Journal Guide 2020 and previous peer-reviewed journals. The review was not limited by a particular context either given the nature of the current paper, which is a general review of the literature.

The reference list was examined to ensure that other vital contributions were not missed when a relevant paper was identified. This helped identify other relevant papers such as board diversity and fraud, auditors and fraud detection. The search identified a total of 131 sources relevant to the current research issue (i.e. Corporate governance's role in countering fraud).

## 3. Corporate governance and the agency theory

Before discussing corporate governance's role in combating fraud, it is essential to understand what corporate governance entails and its relationship to the agency theory. Corporate governance refers to how organisations are directed and controlled (The Cadbury Report, 1992). The Chartered Institute of Management Accountants (CIMA, 2015) indicates that governance denotes the generic way an organisation is run, focussing on accountability, integrity and risk management. Hence, there are clear lines of responsibility for ethics that lead directly to the board level. A broader definition of corporate governance by Solomon (2013, p.7) is "a system of checks and balances, both internal and external to companies, which ensures that companies discharge their accountability to all their stakeholders and act in a socially responsible way in all areas of their business activity".

Research implies that corporate governance's dominant meaning is derived from an agency theory perspective (L'Huillier, 2014). One of the much-debated and fundamental issues in contemporary corporate governance has been the agency problem, which arises due to the separation of ownership from control (Ahmad and Omar, 2016). Agency theory was developed by Jensen and Meckling (1976), where they defined the agency relationship as a form of contract between a company's owners and its managers, where the owners (as principal) appoint an agent (the managers) to manage the company on their behalf. As a part of this arrangement, the owners must delegate decision-making authority to the management. This delegation raises questions about trust between principal and agent due to information asymmetry and different motives; hence, effective corporate governance mechanisms are needed to align principals and agents' interests.

The ultimate goal of corporate governance is to make sure that a company is run in a way that achieves its objectives and assures stakeholders that their trust has been in the right place [the Chartered Governance Institute (ICSA, 2020)]. Nevertheless, ensuring stakeholders' trust and the long-term success of an organisation is not the responsibility of management and directors alone. Effective corporate governance also requires the efforts and commitment of honest and competent auditors, audit committees, employees and effective laws and regulations. The UK Code of Corporate Governance indicates that good governance practices entail effective board leadership; true and fair financial reporting (i.e.

free from fraud and error); sound controls and risk management systems; effective and independent audits and audit committees; fair directors' remuneration; and maintaining good relations with shareholders FRC (2016, 2018).

To sum up, corporate governance is the system by which an organisation is run and controlled. Corporate governance involves how the board of directors and management operates and is committed to integrity, ethics and corporate social responsibility (CSR), whether the organisation has adequate internal controls and risk management system, how the audit committees and auditors are performing and how accountability is maintained within the organisation. As such, the role of corporate governance in countering fraud will be discussed from the perspective of that broader concept of corporate governance.

## 4. Impact of corporate governance on fraud

Evidence from the extant literature shows a link between effective corporate governance mechanisms and the likelihood of fraud. Sabbaghi (2016) reports that corporate governance affects fraud risk, and Gam *et al.* (2021) show a positive link between evasive corporate governance and corporate fraud. A few studies found that some companies could use effective corporate governance mechanisms to bolster their reputation after the fraud was detected. Rotenstein (2011) shows a statistically significant association between restatements involving fraud and changes to strengthen firms' governance structures following the restatements. Marciukaityte *et al.* (2006) uncover that companies increased the proportion of outsider directors on their boards of directors and the boards' monitoring committees after the accusation of fraud.

Several studies provide evidence that effective corporate governance reduces fraud risk, particularly insider fraud, corporate fraud and asset diversion. Harris *et al.* (2017) identify consistent evidence that good governance reduces asset diversion. Asset diversion is one of the methods used in insurance fraud and involves the theft of an insurance company's assets (Scheetz *et al.*, 2021). Mohd-Sanusi *et al.* (2015) uncover that corporate governance can reduce insider fraud in the Malaysian banking sector. Naruedomkul *et al.* (2010) conclude that effective corporate governance can help reduce Thailand's fraud risk.

Similarly, Zhang (2018) found that enhanced public governance reduces the likelihood of committing fraud in China. Halbouni *et al.* (2016) indicate that corporate governance has a moderate role in preventing and detecting fraud in the United Arab Emirates. On the other hand, the literature provides evidence that ineffective corporate governance contributes to fraud occurring and provides the opportunity for fraud to be perpetrated and remain undetected (Akkeren and Buckby, 2017).

## 5. Corporate governance mechanisms recommended for countering fraud

Surveying the extant literature reveals various corporate governance mechanisms to mitigate fraud risk. This section groups these governance mechanisms into four related categories. Each category represents an aspect of corporate governance, including the following:

1. board leadership and the role of ethics;
2. board characteristics, composition and structure;
3. ownership structure; and
4. accountability.

### *5.1 Board leadership and the role of ethics*

The UK code of corporate governance, which is considered a benchmark of good governance practices (Coyle, 2012; Solomon, 2013; Tricker, 2015), indicates that a successful company is led by an effective and entrepreneurial board, whose role is to promote its long-term sustainable success, generating value for shareholders and contributing to broader society. The code recommends that all directors must act with integrity, lead by example and establish a framework of prudent and effective controls, enabling risk to be assessed and managed (FRC, 2018).

The board of directors and top management plays an essential role in mitigating fraud risk in an organisation. The tone or culture developed by executive directors and top management is the "control environment" or the "tone at the top". Both terms reflect the integrity and ethical atmosphere created by the organisation's leadership. The control environment is a critical component of an entity's internal control, as it sets the tone of an entity and influences the control consciousness of people within an organisation (Ramos, 2004). The Committee of Sponsoring Organisations of the Treadway Commission (COSO, 2014) suggests that critical determinants of an effective control environment include top management's commitment to competence, integrity and ethical behaviour; ability to hold individuals accountable; and the extent of their participation and involvement in the organisation.

Fighting fraud and unethical behaviour starts at the top of the organisation. Top management with integrity will lead by example, discourage fraudulent and unethical behaviour and adequately discharge their responsibilities. If the tone set by top management upholds ethics and integrity, employees will be more inclined to follow those same ethical values. However, if top management seems unconcerned about ethics and fraud, employees will find it an opportunity to defraud the organisation (CIMA, 2015; Halbouni *et al.*, 2016).

Morgan and Burnside (2014) discuss the fraud case of Olympus Corporation in Japan and indicate that an unethical corporate culture increases the risk of fraudulent financial reporting. Similarly, Reddic *et al.* (2017) analyse the Russian North Oil Service fraud case and conclude that unethical corporate culture increases the risk of corruption and other types of fraud. Shi *et al.* (2017) find that when top managers face more stringent external control mechanisms, in the form of activist shareholders, the threat of a takeover or zealous securities analysts, they are more likely to engage in financial fraud. However, management with high integrity is less likely to commit fraud even with strong pressure and existing opportunities (Albrecht, 2014; Kassem, 2018).

Corporate greed and lack of integrity at the executive level have destroyed many companies, stripped shareholders of their investments and resulted in losing jobs and pensions (Solomon, 2013; Tricker, 2015; Mallin, 2016). Management's greed is evident in real corporate fraud cases, including but not limited to Enron, WorldCom, Patisserie Valerie, Nissan and Wirecard. For instance, in WorldCom in the USA, the company's managers and directors conspired to manipulate the company's financial statement by concealing liabilities and inflation of profits and assets. Top management communicated to employees at all levels that the code of ethics is a waste of time, and employees were continuously pressured to achieve targets regardless of the means (Jones, 2011; ACFE, 2014).

Equally, the finance manager and CEO of Patisserie Valerie in the UK colluded to inflate its profit and abused its positions to conceal loans for personal gain (Partington, 2019). The CEO of Nissan in Japan improperly disclosed his remuneration to avoid shareholders' rage (SEC, 2019). In Germany's Wirecard case, top management colluded many fraud schemes to inflate its profitability and receive bonuses (McCrum, 2019; Riley and McSweeney, 2020). However, although top management achieved relatively short-term financial gain in these cases, they lost their reputation and jobs and some were prosecuted.

Setting the right tone at the top requires leaders to set an ethical example of how their employees should behave in the workplace and provide a safe mechanism for reporting fraud and unethical behaviour. According to the Global Business Ethics Survey in 2020, 22% of employees globally have felt pressure to bend the rules. The pressure to bend the rules is associated with higher levels of misconduct, including fraud, discrimination and violating the law. The survey also reports that employee pressure to bend the rules was higher among those who perceived their leaders as having a weak commitment to organisational values and ethical leadership (Ethics and Compliance Initiative, 2020). In another survey by PwC (2020) Global Economic Crime and Fraud Survey, 47% of companies experienced fraud, and barely one-third reported the fraud to the board. These findings indicate the importance of having an effective tone at the top.

Setting the right tone at the top also requires top management to design a code of ethics with zero tolerance to fraud and unethical behaviours, reward integrity, take corrective actions when raised by auditors and cooperate with the auditors and audit committee. Management's attitude towards control deficiencies and auditors' recommendations to take corrective actions determines their integrity level (Abdullatif, 2013; Kassem, 2018). Furthermore, an effective tone at the top involves treating employees fairly and respectfully, providing fair pay, remuneration and promotions, investing in adequate anti-fraud controls and risk management systems, holding individuals accountable for their responsibilities and prosecuting fraudsters rather than firing them (Kassem, 2021).

Designing a written organisation code of ethics that spells out the penalties for manipulating the financial statements could also help mitigate fraud risk, as Leinicke *et al.* (2000) pointed out. Law (2011) indicates that the tone at the top managerial level and ethical guidelines and policies are positively associated with a lack of fraud within Hong Kong organisations. Promoting a culture of integrity within an organisation requires fostering an anti-fraud culture that includes mandatory employee fraud awareness training, establishing an easily used and understood whistle-blowing process and setting up an effective fraud hotline. It also involves disseminating a clear written code of practice covering accepting gifts and consistently implementing disciplinary processes to violate anti-fraud policies (Ingber, 2020).

### *5.2 Board characteristics, composition and structure*

Some studies found a link between board characteristics and structure, particularly board independence and fraud risk. Chen *et al.* (2006) suggest that board characteristics are essential in explaining fraud. In particular, the proportion of outside directors, the number of board meetings and the chairman's tenure are associated with fraud incidence. Uzun *et al.* (2004) find that as the number of independent outside directors increased on the board of directors, audit committee and remuneration committee, the likelihood of corporate fraud decreased in the USA. Sharma (2004) reports that as the percentage of independent directors increases, the likelihood of fraud decreases. Melis (2005) analysed Parmalat's fraud case and concluded the company did not have independent directors. Lenard *et al.* (2012) provide evidence of the association between the corporate governance structure's effectiveness and the external auditor assessing fraud risk.

Similarly, Torchia and Calabro (2016) uncovered a positive and significant relationship between the independent directors' ratio and the level of financial transparency and disclosure. Frankel *et al.* (2011) suggest that companies with less independent boards are more likely to manipulate US earnings opportunistically. Romano and Guerrini (2012) find that board independence is the sole effective mechanism in detecting financial reporting fraud in Italy. The results show that firms committing accounting fraud have a lower percentage of independent directors on the board and fewer non-executive and independent directors on the audit committee. Ghafoor *et al.* (2019) indicate that independence of the board provides active monitoring and oversight in reducing fraud.

In contrast, Persons (2005) concludes that board of director independence is insignificant in reducing fraud likelihood. Yang *et al.* (2017) did not find evidence that the percentage of independent directors in the directorate plays a role in deterring financial fraud in China. Gulzar *et al.* (2020) find empirical evidence that board independence does not impact the performance of listed textile companies in India.

In addition to board independence, a few studies find that board expertise and board diligence negatively and significantly reduce financial statement fraud in Nigeria's manufacturing firms (Subair *et al.*, 2020). Anisykurlillah *et al.* (2020) uncover that board members' expertise in accounting and finance could reduce instances of fraudulent financial reporting in Indonesian Islamic Banks. Cheng *et al.* (2008) show that the degree of activeness of the board of directors and board independence significantly influences financial control, reducing fraud risk in China.

A few other studies report a link between board structure, composition and fraud incidents. Vasilakopoulos *et al.* (2018) suggest that bank managers' smooth income decisions may differ concerning the board structure. Previtali and Cerchietto (2017) conclude that for an effective anti-corruption strategy, larger supervisory board sizes are associated with weaker performance, and a greater external composition is preferable to an internal one. In contrast, Sehrawat *et al.* (2019) found that board size is irrelevantly identified with earnings manipulation. Khanna *et al.* (2015) find that connections CEOs develop with top executives and directors through their appointment decisions increase the risk of corporate fraud, decrease the expected costs of fraud by helping conceal fraudulent activity and make CEO dismissal less likely upon discovery. Martins and Ventura Júnior (2020) report that the firms' corporate governance structure influences fraudulent financial reporting mitigation, either directly or indirectly, by reducing the chances of bankruptcy or earnings manipulation in Brazil. Yang *et al.* (2017) uncover that when firms have less concentrated ownership, dual CEO/chairman of the directorate status, they tend to engage less in financial fraud.

There is also evidence that board duality could mitigate the risk of fraud. Sharma (2004) finds a positive relationship between board duality and the likelihood of fraud in Australia. Younas *et al.* (2021) find a significant negative association between CEO-chair duality and financial distress indicators. Persons (2005) concludes that fraud is lower when a CEO is not the board chairman. Jia *et al.* (2009) indicate that China's supervisory boards play an active role when Chinese listed companies face enforcement action and could reduce instances of fraud. Inconsistently. Gulzar *et al.* (2020) find empirical evidence that CEO duality does not impact the performance of listed textile companies in India.

The impact of board diversity, especially gender diversity, on tackling fraud is further acknowledged in the literature. Cumming *et al.* (2015) find that gender diversity on boards can operate as a significant moderator for the frequency of fraud and that women are more effective in male-dominated industries in reducing both the frequency and severity of fraud in China. Equally, Capezio and Mavisakalyan (2016) show that the increase in women's representation on company boards is associated with a decreased probability of fraud in Australia. Lenard *et al.* (2017) uncover that at least one female leader decreases the likelihood of litigation for financial reporting fraud in the USA. Similarly, Luo *et al.* (2020) report that firms with female CFOs are less likely to commit fraud than male CFOs in China. Ghafoor *et al.* (2019) indicate that a female's presence on the board provides active monitoring and oversight in reducing fraud. Briano-Turrent Dr. (2021) find a positive effect of female representation in boardrooms over the board's ethical functioning, the conflicts of interest transparency index, the creation of ethics codes and the adoption of stakeholder orientation.

### *5.3 Ownership structure*

Evidence from the literature indicates a link between ownership structure and fraud risk. For instance, Sharma (2004) reports that as the percentage of independent institutional ownership increases, the likelihood of fraud decreases. Ghafoor *et al.* (2019) indicate that dedicated institutional investors provide active monitoring and oversight in reducing fraud. Cheng *et al.* (2008) show that the percentage of shares held by the controlling shareholder significantly influences financial control, reducing fraud risk in China. Pucheta-Martínez and García-Meca (2014) suggest that institutional investors on boards and audit committees are effective monitors, which leads to higher quality financial reporting and, therefore, a lower likelihood that the firm receives a qualified audit report.

Shi *et al.* (2020) uncovered that state ownership is negatively associated with the likelihood of securities fraud commission. Firms with high state ownership are more likely to dismiss CEOs than those with low or no state ownership upon securities fraud detection. Choi *et al.* (2020) explore a causal relationship between firms' ownership structures and the likelihood of corporate fraud in South Korea. They find that the frequency of corporate fraud was reduced more in central firms than in non-central firms as the controlling owner's cash-flow rights dropped more. However, an opposite conclusion by Chen *et al.* (2006) suggests that boardroom characteristics are more important and relevant than ownership structure in explaining fraud.

### *5.4 Accountability*

From an agency theory perspective, accountability means reporting back to the principals and giving an account of what has been achieved. Effective accountability should reduce the agency problem and fraudulent behaviour by management because it gives management a greater incentive to achieve performance levels in the shareholders' best interests. Such incentives include obtaining rewards or avoiding punishments (Coyle, 2012). Failure to enforce accountability increases the risk of opportunity for fraud, as it allows fraud perpetrators and their accomplices to get away with their crimes without adequate punishments. In the meantime, it delivers the wrong message about fraud tolerance within the organisation, encouraging others to perpetrate fraud without fear of repercussions. Hence, accountability is the cornerstone of any effective corporate governance system (Kassem, 2021).

To ensure accountability, organisations should hold individuals accountable for their actions, have an effective, competent and honest board of directors, accurate and trustworthy financial reporting system, robust internal controls and risk management systems, independent, honest and competent auditors and audit committees (Mallin, 2016). The quality of financial reporting begins with senior management and the decline in financial reporting quality could be related to the tone at the top, a cornerstone of quality financial reporting (Leinicke *et al.*, 2000). Dishonest management has the power to manipulate financial reporting and deceive shareholders to achieve specific motives. Management motives to commit fraud could be financial, such as financial need, greed, keeping the job, receiving bonuses or non-financial, such as ego, coercion, ideology, revenge or the desire to please investors (Kassem, 2017).

*5.4.1 Internal controls and risk management.* Internal controls refer to the policies and procedures in an organisation designed to ensure that the assets are safeguarded, laws and regulations are complied with and the systems operate as efficiently and effectively as planned (Arens *et al.*, 2014). Designing and implementing robust controls is essential in ensuring accountability. The UK Code of corporate governance requires the board of directors of listed companies to design and implement a sound internal control and risk management system (FRC, 2018).

In the USA, the importance of internal controls and risk management is emphasised through the Sarbanes Oxley (SOX) Act 2002. The SOX Act was introduced following the financial fraud scandals of Enron, WorldCom and Global Crossing and significantly impacted the USA and worldwide. SOX requires organisations to implement effective internal controls and risk management systems. It also requires external auditors to report independently on the effectiveness of audit clients' internal control and risk management systems (PCAOB, 2002; Mallin, 2016). Tsai and Huang (2020) find that declines in stock price on securities fraud litigation announcement dates are significantly more severe for publicly litigated firms receiving US SOX 404 internal control material weakness opinions.

The Committee of Sponsoring Organisations of the Treadway Commission (COSO)[2] established an internal control framework suggesting that organisations design and implement five main internal control components to ensure effective internal control and risk management systems. These control components include the control environment, control activities, risk assessment and management, information and communication and monitoring. As discussed before, a vital aspect of the control environment is top management's commitment to integrity and ethical values. The control activities include critical anti-fraud controls such as adequate segregation of duties, safeguards over assets and records, ensuring proper documentation, maintaining proper authorisation and independent checks on performance. Clear information and communication flow inside and outside the organisation are essential control components. Monitoring involves the continuous review of processes and activities and taking corrective actions when needed (COSO, 2014).

Industry standards have also emphasised the importance of governance controls. For instance, the International Organisation for Standardization (ISO) issued ISO 27001, which enables organisations to manage the security of assets and includes the following 14 controls: information security policies, organisation of information security, human resource security, asset management, access control, cryptography, physical and environmental security, operations security, communications security, system acquisition, development and maintenance, supplier relationships, information security incident management, information security aspects of business continuity management and compliance. These 14 controls assert the importance of similar controls suggested by COSO, such as monitoring, investment in cyber security, conducting background checks and physical control over assets and records[3].

Similarly, Control Objectives for Information and Related Technology (COBIT) helps organisations meet business challenges in regulatory compliance, risk management and aligning information technology (IT)strategy with organisational goals. COBIT 5 is based on five principles that are essential for the effective management and governance of enterprise IT, including the following:

1. meeting stakeholder needs;
2. covering the enterprise end to end;
3. applying a single integrated framework;
4. enabling a holistic approach; and
5. separating governance from management.

These five principles enable an organisation to build a holistic framework for the governance and management of IT that is built on seven "enablers". This includes people, policies and frameworks, processes, organisational structures, culture, ethics and behaviour, information, services, infrastructure and applications, people, skills and competencies[4].

Prior studies assert internal control and risk management's role in mitigating the risk of fraud. Marciukaityte *et al.* (2006) report that improvements in internal control systems following accusations of fraud help repair a company's damaged reputation and reinstate its confidence. Zakaria *et al.* (2016) found that internal control weaknesses can be major contributing factors for fraud committed in Malaysia. Gao and Zhang (2018) argue that one firm's internal controls investment positively affects peer firms. It reduces its own manager's manipulation, which, in turn, mitigates the manipulation pressure on managers at peer firms. Jha *et al.* (2020) find that firms in corrupt districts are more likely to have weak internal controls and restate earnings.

The literature reports various types of controls that could effectively combat fraud. One of the most important internal control components is monitoring. Subair *et al.* (2020) argue that boards need to be more effective in monitoring roles to reduce fraud. Harris *et al.* (2017) find that monitoring debt holders and government grantors, audits and keeping managerial duties in-house are most strongly associated with lower fraud incidence. They also uncover that the likelihood of fraud is negatively associated with a conflict of interest policy and the presence of restricted donations.

Similarly, Wang (2010) concludes that investors value the creation of monitors and valuable business operations more than restructuring following financial fraud. Adetiloye *et al.* (2016) discuss that inadequate supervision and improper documentation process provide an opportunity to misappropriate the assets in Nigeria. Nendi *et al.* (2020) assert the importance of monitoring and using technology to prevent and detect fraud in Indonesia. Davis and Harris (2020) indicate specific controls that owners of small retail businesses could implement to prevent and detect occupational fraud. This includes monitoring, employee identity documents to track employee activity, separation of duties and communication with employees.

In a recent global fraud study, the Association of Certified Fraud Examiners (ACFE, 2020) finds that the most effective anti-fraud controls include anonymous fraud reporting lines, anti-fraud awareness and education staff, internal audit and management review. Ali and Hashim (2020) uncovered that fraud risk assessment directly impacts Oman's good corporate governance. Earlier, Leinicke *et al.* (2000) suggested that the use of corporate culture audits, fraud prevention units and background checks could reduce financial reporting fraud and improve financial reporting quality.

Ingber (2020) provides various examples of adequate anti-fraud controls in banks, including anti-fraud training and awareness campaigns to customers and staff, information security, third-party risk management, background investigations for new employees and a fraud risk assessment committee. The role of the fraud risk assessment committee should involve defining fraud risk appetite and tolerance appropriate to each business line, reviewing anti-fraud policies and procedures, addressing relevant regulatory findings, ensuring a robust anti-fraud control infrastructure, establishing and using technology to identify fraud risk and promoting ethical behaviour and appropriate tone at the top.

*5.4.2 Auditors and audit committees.* 5.4.2.1 External and internal auditors. Whether internal or external, auditors play a critical role in mitigating the risk of fraud. According to the ICAEW (2005), audits serve a vital economic purpose and play an essential role in serving the public interest to strengthen accountability and reinforce trust and confidence in financial reporting. Hence, it is considered one of the critical governance mechanisms. The International Standards on Auditing (ISA 240) requires external auditors to provide reasonable assurance that the financial statements are free from material misstatements, whether due to error or fraud. ISA 240 details that external auditors should assess management integrity; assess fraud risk while considering the risk of motivations, opportunities and rationalisation of fraud; engage in brainstorming sessions to discuss fraud risk with the audit engagement team; and report fraud when found (IAASB, 2009).

On the other hand, internal audit provides assurance by assessing and reporting the effectiveness of governance, risk management and control processes designed to help the organisation achieve strategic, operational, financial and compliance objectives (IIA, 2018). Internal auditors are also responsible for assessing fraud risk and, in some cases helping in the detection and investigation of internal fraud (Pickett, 2010; Iovu, 2018). Besides, internal auditors' reports could benefit external auditors (Arens *et al.*, 2014). Cular *et al.* (2020) find that external auditors' reliance on the internal audit function is highest when the latter provides risk management consulting under a strong audit committee's supervision. Alzeban (2020) indicates that when internal auditors report directly to the audit committee, there is a significant positive influence on financial reporting quality. Conversely, when an internal auditor reports to the CEO or chief financial officer (CFO), there is a negative impact on financial reporting quality.

DeZoort and Harrison (2018) argue that auditors play a critical role in managing fraud risk within organisations and find external auditors perceiving the most detection responsibility for financial statement fraud, while internal auditors report similar detection responsibility for all fraud types. Ergin (2019) argues that fraud detection is dependent on internal auditors and external audit design. Fera *et al.* (2022) highlight that firms having a high quality and sustainable corporate governance system tend to have fewer critical audit matters arising from the audit process and then disclosed in the audit report.

Law (2011) indicates that internal audit effectiveness is positively associated with a lack of fraud within Hong Kong organisations. Similarly, Westhausen (2017) emphasises the role of internal audits in preventing and detecting fraud. Alzeban (2019) concludes that companies demonstrating higher internal audit compliance with standards have better financial reporting quality. Martins and Ventura Júnior (2020) note that audit-related practices reduce earnings manipulation. Lauck *et al.* (2020) find that external auditors elicit client–employee disclosures of known fraud by actively promoting statutory whistleblower protections. Nguyen *et al.* (2019) find that higher audit quality leads to a deterioration in corporate misreporting.

Despite the vital role that external auditors play in deterring fraud and reinforcing accountability, external auditors' failure in detecting material misstatement due to fraud over the years cast doubt over the value of external audits as a governance mechanism in countering fraud. However, the reality is that external audits are required by law and auditors are obliged to assess and respond to fraud risks. Ungureanu (2012) establishes the importance of external financial audits in improving corporate governance and suggests that external audits must manifest in a governance system to avoid fraud. For that reason, it is crucial to explore ways to improve auditors' skills in countering fraud.

A few studies indicate how to improve auditors' fraud risk assessment and response skills. For instance, Kassem (2019) and Nguyen *et al.* (2019) suggest that knowledge of how financial reporting fraud schemes are committed and concealed could help auditors design effective audit tests to assess fraud risk. And, it could help those charged with governance design effective fraud prevention and detection techniques, and auditors could use help from forensic specialists to uncover accounting fraud. Herron and Cornell (2021) argue that auditor creativity characteristics and the creativity of the work environment are related to auditors' recognition of and responses to fraud cues, implying how an emphasis on standardised audit procedures in response to firm oversight may diminish auditor creativity. Simon *et al.* (2020) conclude that auditors who make holistic fraud risk assessments are more concerned about high-risk fraud schemes than auditors who use fraud risk decomposition. Durkin *et al.* (2020) observe that auditors who read a metaphor related to concerns about the honesty of the sources of information (client-sceptical metaphor) or concerns about one's own ability to detect problems (self-sceptical metaphor) assessed higher levels of fraud risk. Bauer *et al.* (2020) find that seeking informal advice or thinking like an advisor helps auditors effectively revise audit plans to identify fraud risk.

5.4.2.2 Audit committees. Audit committees serve the interests of investors and other stakeholders through their independent oversight of the annual corporate reporting process, including the audit of the company's financial statements, and have an essential role in ensuring quality. The audit committee reports the external auditor's work and concludes the annual report (FRC, 2020). Vera-Muñoz (2005) emphasises the role of audit committees in ensuring the integrity of financial reporting. Equally, Benson and Burton (2018) emphasise the role of audit committees in corporate governance, ensuring accountability and reducing fraud risk.

Law (2011) reports that audit committee effectiveness is positively associated with a lack of fraud within Hong Kong organisations. Almaqtari *et al.* (2020) conclude that audit committee attributes and audit quality significantly affect financial reporting quality. Ghafoor *et al.* (2019) report that effective audit committees and active monitoring and oversight reduce fraud. Cormier *et al.* (2010) show that audit committee size and the extent of voluntary governance disclosure reduce information asymmetry in Canada.

A few studies reported that specific characteristics could enhance audit committees' abilities to mitigate fraud risk. Persons (2005) uncovered that fraud is lower when the audit committee comprises independent directors, has fewer directorships with other companies and has longer tenure. Similarly, Owens-Jackson *et al.* (2009) find that the likelihood of fraudulent financial reporting is negatively related to audit committee independence and the number of audit committee meetings. Abbott *et al.* (2000) find that firms with audit committees composed of independent directors and meet at least twice per year are less likely to be sanctioned for fraudulent or misleading reporting. Mnif and Borgi (2020) report that audit committee independence and the number of meetings held by the audit committee are positively associated with the extent of compliance with International Financial Reporting Standards. Besides, audit committee industry expertise and financial accounting expertise are associated with a higher level of compliance. Ashraf *et al.* (2019) uncover a reduction in the likelihood of material restatement, IT-related material weaknesses and more timely earnings announcements at firms with audit committees with IT expertise. However, Persons (2005) inconsistently concluded that audit committee expertise is not significant in reducing fraud likelihood.

## 6. Findings, discussion, literature gaps and future research

This paper elucidates the impact and role of corporate governance in countering fraud based on a comprehensive literature review. Regarding the impact of corporate governance on fraud, the present paper finds that effective corporate governance can help reduce fraud risk, prevent fraud and detect fraud, particularly corporate fraud, insider fraud and asset diversion. Some companies use corporate governance mechanisms to bolster their reputation following fraud detection. On the other hand, inadequate corporate governance mechanisms increase fraud risk, provide the opportunity for perpetrating fraudulent activities and reduce the likelihood of fraud detection.

The paper sheds light on several governance mechanisms that could help in mitigating fraud risk, as reported in the literature. It then categorises these governance mechanisms into four broad governance aspects, including the following:

1. board leadership and the role of ethics;
2. board characteristics, composition and structure;
3. ownership structure; and
4. accountability.

The paper proposes a guide (Table 1) summarising these broad fundamental governance aspects, including specific anti-fraud controls and examples of how organisations could enhance ethical cultures and the tone at the top.

In the first governance aspect, *board leadership and the* role *of ethics*, the paper highlights the link between board leadership and ethics. The findings reveal that fighting fraud starts from the top of the organisation. If the tone set by top management upholds ethics and

**Table 1** Corporate governance framework for combating fraud

| *Enhancing the tone at the top* | *Effective anti-fraud controls* | *Board effectiveness* | *Accountability* |
|---|---|---|---|
| *Shareholders should:* | | | |
| | Continuous monitoring | Appointing independent non-executive directors to the board with financial and anti-fraud expertise | Establishing independent and competent audit committees |
| Appoint leaders with high integrity to ensure their commitment to ethics | Using independent and professionally qualified accountants to compile and review financial statements | Separating the duties of the CEO and the chairman of the board | Appointing independent audit committee members with financial and countering fraud expertise |
| Hold board members, auditors and audit committees accountable | Securing assets and records | Appointing females with financial and anti-fraud expertise to the board | Appointing independent, honest and competent external auditors with expertise in countering fraud |
| | Investing in cyber security | Appointing experienced and diligent board members | Ensuring effective cooperation between internal and external auditors |
| *Leaders at all levels should:* | | | |
| | Designing proper documentation [5] | Establishing a supervisory board | Appointing an internal auditor or establishing an internal audit department |
| Promote an anti-fraud culture | Conducting corporate culture audits using anonymous surveys | Considering less concentrated ownership, non-tradable state shares, and more independent institutional ownership | Internal auditors should report directly to the audit committee |
| Uphold integrity | Establishing a fraud prevention unit or a fraud risk assessment committee | Continuous board monitoring | The audit committee should review auditors' assessment of fraud risk |
| Lead by example | Conducting background checks on staff at all levels | Training board members on designing adequate controls, risk management, and countering fraud | External auditors should actively promote statutory whistleblower protections and consider whistleblower reports in fraud risk assessment |
| Hold individuals accountable for their actions | Designing conflict of interest policy | | |
| Prosecute fraud perpetrators instead of firing them | Introducing restricted donations policy | | Auditors should assess the tone at the top, the organisation's culture and the effectiveness of anti-fraud controls |
| Provide a safe mechanism for reporting fraud and unethical behaviour | Establishing anonymous fraud reporting lines | | |
| Design a code of ethics with zero tolerance to fraud and unethical behaviours | Providing anti-fraud awareness and education to the staff at all levels | | |
| Take corrective actions when raised by auditors or audit committees | Conducting internal audits | | |

(*continued*)

**Table 1**

| *Enhancing the tone at the top* | *Effective anti-fraud controls* | *Board effectiveness* | *Accountability* |
|---|---|---|---|
| Cooperate with the auditors and audit committees | Conducting a fraud risk assessment | | |
| Treat employees fairly and respectfully | Using technology to prevent and detect fraud | | |
| | Tracking employee and management activities | | |
| Design and provide fair pay, remuneration, and promotions to reduce the risk of motives and rationalisation for insider fraud | Ensuring there is adequate separation of duties[6] | | |
| Invest in anti-fraud controls | Ensuring there is an open-door policy and clear communication with employees | | |
| Consistently implement disciplinary processes for violation of anti-fraud policies | Conducting a third-party risk assessment | | |
| | Promoting ethical behaviour and appropriate tone at the top | | |
| | Rewarding integrity | | |
| | Imposing severe penalties on fraud perpetrators | | |

integrity, employees will be more inclined to follow those same ethical values. However, if top management seems unconcerned about ethics and fraud, employees will find it an opportunity to defraud the organisation. Prior research asserts that unethical top management and corporate culture increases the risk of fraudulent financial reporting, corruption and other types of fraud.

To set an effective tone at the top, executives and top management should take the following actions:

- set an ethical example of how their employees should behave in the workplace;
- provide a safe mechanism for reporting fraud and unethical behaviour;
- design a code of ethics with zero tolerance to fraud and unethical behaviours;
- reward integrity;
- take corrective actions when raised by auditors;
- cooperate with the auditors and audit committee to ensure a fair and trustworthy financial reporting process;
- treat employees fairly and with respect, and provide them with fair pay, remuneration, and promotions to reduce the risk of motives and rationalisation to commit fraud;
- invest in adequate anti-fraud controls and risk management systems; and
- hold individuals accountable for their responsibilities by imposing strict penalties on those who commit fraud or engage in any other unethical behaviour.

Additionally, shareholders must consider appointing executive directors and top management with high integrity levels to ensure top leaders' commitment to ethics. A summary of anti-fraud controls and how to main an effective tone at the top is provided in Table 1.

Several studies focused on the link between board independence and fraud risk in the second governance aspect, *board characteristics, composition and structure*. Their results indicate that more independent non-executive directors on the board of directors, audit committee and remuneration committee matter in countering fraud. That is because the board's independence provides active monitoring and oversight in reducing fraud. In addition to board independence, a few studies suggested that board expertise, particularly in accounting and finance, could help reduce fraudulent financial reporting. Similarly, some evidence indicates that board duality, the frequency of board meetings and board size could help mitigate fraud risk.

Nevertheless, a few studies reported no evidence of the impact of board independence, board duality, board size and frequency of board meetings on reducing fraud risk. These mixed results lead to inconclusive evidence, which calls for more future research in this area. In addition to these mixed results, there is very little evidence on the link between the frequency of board meetings, chairman's tenure, board members' expertise and fraud risk. Besides, Another under-researched area is the link between board members' expertise and countering fraud. In particular, what specific knowledge and skills would enable board members to tackle fraud?

An interesting finding by one study shows that the connections CEOs develop with top executives and directors through their appointment decisions increase the risk of corporate fraud, decrease fraud detection, helps conceal fraudulent activity and make CEO dismissal less likely upon discovery. However, given the scarcity of research in this area, this conclusion is premature and requires more future research evidence.

An emerging research stream in board diversity reports that gender diversity also matters in countering fraud. In particular, prior studies results suggest that women are more effective in male-dominated industries in reducing fraud's frequency and severity, the increase in women's representation on company boards is associated with a decreased probability of fraud and that firms with female CFOs are less likely to commit fraud than male CFOs. Some also found that female's presence on the board provides active monitoring and oversight in reducing fraud and that there is a positive effect of female representation in boardrooms over the board's ethical functioning, the conflicts of interest transparency index, the creation of ethics codes and the adoption of stakeholder orientation. Although there is evidence supporting the impact of female directors on mitigating fraud risk, some research questions remain unanswered. For example, why are female directors more likely to reduce fraud risk than male directors? Did organisations that collapsed as a result of fraud have any female directors?

About the third governance aspect, *ownership structure*, a few studies provide evidence of the relationship between ownership structure and fraud risk. In particular, their findings show that as the percentage of independent institutional ownership increases, the likelihood of fraud decreases and that institutional investors provide active monitoring and oversight in reducing fraud. The percentage of shares held by the controlling shareholder significantly influences financial control, reducing fraud risk. State ownership is negatively associated with the likelihood of securities fraud commission, and firms with high state ownership are more likely to dismiss CEOs than those with low or no state ownership upon securities fraud detection. However, an opposing argument indicates that boardroom characteristics are more important and relevant than ownership structure in explaining fraud. Given the little evidence on the link between ownership structure and fraud risk, future studies should investigate whether there is a link between ownership structure and fraud risk. If so, what form of ownership structure should be considered and why?.

This paper finds streams of research covering the fourth governance aspect, *accountability*. A summary of prior studies' results reveals that failure to enforce accountability increases the risk of opportunity for fraud, as it allows fraud perpetrators and their accomplices to get away with their crimes without adequate punishments. In the meantime, it delivers the wrong message about fraud tolerance within the organisation, encouraging others to perpetrate fraud without fear of repercussions. Hence, accountability is the cornerstone of any effective corporate governance system.

To ensure accountability, organisations should hold individuals accountable for their actions, have an effective, competent and honest board of directors, accurate and trustworthy financial reporting system, robust internal controls and risk management systems, independent, honest and competent auditors and audit committees. The literature reports various types of controls and accountability considerations that could effectively combat fraud which this paper summarises in Table 1.

A critical argument in this paper is that the quality of financial reporting begins with senior management, and the decline in financial reporting quality could be related to the tone at the top. Dishonest executives and top management have the power to override robust internal controls and manipulate financial reporting to achieve specific motives. For that reason, internal or external auditors and audit committees play a vital role in reinforcing accountability and reducing fraud risk. Prior studies indicated that when internal auditors report directly to the audit committee, there is a significant positive influence on financial reporting quality compared to when they report to the CEO or CFO. Additionally, external auditors are more likely to depend on internal auditors' reports under the supervision of a strong audit committee. As reported in the literature, some factors are crucial for improving audit committees' abilities to counter fraud. This includes audit committees' independence, tenure, number of audit committee meetings, expertise in IT, industry and financial accounting and audit committee size. However, only a few studies explored this area, implying the need for future studies investigating ways to improve audit committees' skills in countering fraud. Besides, inconsistent findings concerning audit committees expertise lead to inconclusive evidence and call for more future research in this area.

Despite the vital role that external auditors play in deterring fraud and reinforcing accountability, external auditors' failure in detecting material misstatement due to fraud over the years cast doubt over the value of external audits as a governance mechanism in countering fraud. This does not mean that the vital role external auditors are expected to play in corporate governance should be overlooked. External audits must manifest in a governance system to avoid fraud, as Ungureanu (2012) suggested. If fraud happens when external audits are in place, imagine what could happen if the audit function is not there? Future research should explore ways to improve external auditors' skills in deterring fraud to restore trust in this critical governance mechanism. This paper finds that only a few studies examined how to enhance auditors' skills in fraud risk assessment, implying a need for more studies in this area. Some of the recommended methods for improving auditors' skills in fraud detection by prior studies include providing anti-fraud education to the auditors, avoiding standardised audit procedures in response to fraud, focussing more on holistic fraud risk assessments, encouraging auditors to read a metaphor related to concerns about the honesty of the sources of information and seeking advice on countering fraud.

Finally, this paper recommends that future research looks into the governance controls introduced by ISO and COBIT and compare business practices with best practices suggested in those standards. Additionally, future studies could analyse governance failures resulting in real fraud cases through the lens of the proposed guidance by this paper.

## 7. Conclusion and implications

This paper elucidates the impact and role of corporate governance in countering fraud based on a comprehensive literature review. Regarding the effect of corporate governance on fraud, the present paper finds that effective corporate governance can help reduce fraud risk, prevent fraud and detect fraud, mainly corporate and insider fraud. Corporate governance can also help minimise asset diversion. Some companies use corporate governance mechanisms to bolster their reputation following fraud detection. On the other hand, inadequate corporate governance mechanisms increase fraud risk, provide the opportunity for perpetrating fraudulent activities and reduce the likelihood of fraud detection.

Concerning the role of corporate governance in countering fraud, the paper sheds light on several governance mechanisms that could help mitigate fraud risk, as reported in the literature. The paper categorises these governance mechanisms into four broad governance aspects, including the following:

1. board leadership and the role of ethics;
2. board characteristics, composition and structure;
3. ownership structure; and
4. accountability.

The paper develops a guide (Table 1) summarising these broad fundamental governance aspects, including specific anti-fraud controls and examples of how organisations could enhance ethical cultures and the tone at the top.

The findings have important implications for policymakers and future research. From the research and academic perspective, this paper draws researchers' attention to gaps in the corporate governance literature which can open up research debates and new research avenues. This study's proposed guidance could be helpful to researchers interested in corporate governance research and academics who aim to embed anti-fraud education in the curriculum. Raising the future generation's awareness of corporate governance's role in combating fraud could prepare and educate future auditors, managers and executives about their role in combating fraud and what good corporate governance entails.

From a policy and practice perspective, this paper's findings could alert regulators to the impact and role of corporate governance in combating fraud. There is less emphasis on ethics and fraud in the UK Code of Corporate Governance, which is considered a benchmark for good governance practices. This study's proposed guidance can help business leaders and policymakers mitigate fraud risk. For instance, business leaders could use this guidance in designing adequate controls that could assess and manage fraud and risk management risk. The guidance could be helpful to policymakers in developing future Governance Codes. The Financial Reporting Council (FRC) in the UK may find the guidance useful and timely, given that the FRC has recently identified fraud risk as a priority area in its future audit inspections [see News I Financial Reporting Council (frc.org.uk)].

Additionally, although this paper highlights the essential role internal auditors play in reducing the risk of fraud, internal audit still is not a legal requirement. This paper recommends that regulators and policymakers globally consider internal audits a legal requirement to encourage organisations to invest in such a vital governance mechanism. So far, only an external audit is legally required despite its limitations.

Like any other study, this paper has its limitations. This paper focusses on the UK corporate governance code, and governance frameworks in different jurisdictions have not been considered. The reason for this pertains to the consideration of the UK governance code as a benchmark for good governance practices by several sources (Coyle, 2012; Solomon, 2013; Tricker, 2015). Despite its limitation, this is the first study to provide a comprehensive review of the literature to highlight the role and impact of corporate governance in countering fraud and also the first to develop guidance in this area.

## Notes

1. Homepage | Royal United Services Institute (rusi.org)
2. Welcome to COSO.
3. Source: ISO – ISO/IEC 27001 – Information security management.
4. Source: COBIT 5 framework for the governance of enterprise IT (itgovernance.co.uk).
5. See COSO guidance on adequate documentation COSO-CROWE-COSO-Internal-Control-Integrated-Framework.pdf
6. See COSO guidance on adequate segregation of duties COSO-CROWE-COSO-Internal-Control-Integrated-Framework.pdf

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Organizational Strategy, Structure, and Process

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# Organizational Strategy, Structure, and Process [1]

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*Organizational adaptation is a topic that has received only limited and fragmented theoretical treatment. Any attempt to examine organizational adaptation is difficult, since the process is highly complex and changeable. The proposed theoretical framework deals with alternative ways in which organizations define their product-market domains (strategy) and construct mechanisms (structures and processes) to pursue these strategies. The framework is based on interpretation of existing literature and continuing studies in four industries (college textbook publishing, electronics, food processing, and health care).*

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An organization is both an articulated purpose and an established mechanism for achieving it. Most organizations engage in an ongoing process of evaluating their purposes—questioning, verifying, and redefining the manner of interaction with their environments. Effective organizations carve out and maintain a viable market for their goods or services. Ineffective organizations fail this market — alignment task. Organizations also constantly modify and refine the mechanism by which they achieve their purposes—rearranging their structure of roles and relationships and their managerial processes. Efficient organizations establish mechanisms that complement their market strategy, but inefficient organizations struggle with these structural and process mechanisms.

For most organizations, the dynamic process of adjusting to environmental change and uncertainty—*of maintaining an effective alignment with the environment while managing internal interdependencies*—is enormously complex, encompassing myriad decisions and behaviors at several organization levels. But the complexity of the adjustment process can be penetrated: by searching for patterns in the behavior of organizations, one can describe and even predict the process of organizational adaptation. This article presents a theoretical framework that managers and students of management can use to analyze an organization as an integrated and dynamic whole—a model that takes into account the interrelationships among strategy, structure, and process. (For a complete discussion of the theoretical framework and research studies, see (15)). Specifically, the framework has two major elements: (a) a general model of the process of adaptation which specifies the major decisions needed by the organization to maintain an effective alignment with its environment, and (b) an organizational typology which portrays different patterns of adaptive behavior used by organizations within a given industry or other grouping. But as several theorists have pointed out, organizations are limited in their choices of adaptive behavior to those which top management believes will allow the effective direction and control of human resources (4, 5, 6). Thus the theoretical framework to prevailing theories of management is also related. An increased understanding of the adaptive process, of how organizations move through it, and of the managerial requirements of different adjustment patterns can facilitate the difficult process of achieving an effective organization-environment equilibrium.

In the following sections, a typical example of organizational adaptation drawn from one of our empirical research studies is first presented. Second, a model of the adaptive process that arose from this research is described and discussed. In the third section, four alternative forms of adaptation exhibited by the organizations in our studies are described. Finally, the relationship between the organizational forms and currently available theories of management is discussed.

## An Example of Organizational Adaptation

As an example of the problems associated with the adaptive process, consider the experience of a subsidiary of one of the companies in our studies.

*Porter Pump and Valve (PPV) is a semi-autonomous division of a medium-sized equipment-manufacturing firm, which is in turn part of a large, highly diversified conglomerate. PPV manufactures a line of heavy-duty pumps and components for fluid-movement systems. The company does most of its own castings, makes many of its own parts, and maintains a complete stock of replacement parts. PPV also does special-order foundry work for other firms as its production schedule allows.*

*Until recently, Porter Pump and Valve had defined its business as providing quality products and service to a limited set of reliable customers. PPV's general manager, a first-rate engineer who spent much of his time in the machine shop and foundry, personified the company's image of* *quality and cost efficiency. In the mid-seventies corporate management became concerned about both the speed and direction of PPV's growth. The management and staff at corporate headquarters began considering two new product and market opportunities, both in the energy field. Fluid-movement systems required for nuclear power generation provided one of these opportunities, and the development of novel techniques for petroleum exploration, well recovery, and fluid delivery provided the second. PPV had supplied some components to these markets in the past, but it was now clear that opportunities for the sale of entire systems or large-scale subsystems were growing rapidly.*

*PPV's initial moves toward these new opportunities were tentative. The general manager discovered that contract sales required extensive planning, field-contact work, and careful negotiations—activities not within his primary area of interest or experience. Finally, in an effort to foster more rapid movement into these new markets, executives in the parent organization transferred the general manager to a head-office position and moved into the top spot at PPV a manager with an extensive background in both sales and engineering and who was adept at large-scale contract negotiations.*

*Within a year of the changeover in general managers, PPV landed several lucrative contracts, and more appeared to be in the offing. The new business created by these contracts, however, placed heavy coordination demands on company management, and while the organization's technology (production and distribution system) has not been drastically revised over the past two years, workflow processes and the operational responsibilities of several managers have changed markedly. Materials control and scheduling, routine tasks in the past, are now complex activities, and managers of these operations meet regularly with the executive planning committee. Moreover, a rudimentary matrix structure has emerged in which various line managers undertake specific project responsibilities in addition to their regular duties. Key personnel additions have been made to the marketing department and more are planned, with particular emphasis on individuals who are capable of performing field planning and supervising and who can quickly bring new fluid systems to full operation. Budgets of some of the older departments are being cut back, and these funds are being diverted to the new areas of activity.*

As illustrated, Porter Pump and Value experienced changes in its products and markets, in the technological processes needed to make new products and serve new markets, and in the administrative structure and processes required to plan, coordinate, and control the company's new operations. None of the usual perspectives which might be used to analyze such organizational changes — for example, economics, industrial engineering, marketing, or policy — appears to address all of the problems experienced by Porter Pump and Valve. Therefore, how can the adaptive process which occurred at PPV be described in its entirety?

## The Adaptive Cycle

We have developed a general model of the adaptive process which we call the *adaptive cycle*. Consistent with the strategic-choice approach to the study of organizations, the model parallels and expands ideas formulated by theorists such as Chandler (9), Child (10), Cyert and March (11), Drucker (12, 13), Thompson (18), and Weick (19, 20). Essentially, proponents of the strategic-choice perspective argue thar organizational behavior is only partially preordained by environmental conditions and that the choices which top managers make are the critical determinants of organizational structure and process. Although these choices are numerous and complex, they can be viewed as three broad "problems" of organizational adaptation: the *entrepreneurial problem,* the *engineering problem,* and the *administrative problem*. In mature organizations, management must solve each of these problems simultaneously, but for explanatory purposes, these adaptive problems can be discussed as if they occurred sequentially.

### The Entrepreneurial Problem

The adaptive cycle, though evident in all organizations, is perhaps most visible in new or rapidly growing organizations (and in organizations which recently have survived a major crisis). In a new organization, an entrepreneurial insight, perhaps only vaguely defined at first, must be developed into a concrete *definition of an organizational domain: a specific good or service and a target market or market segment*. In an ongoing organization, the entrepreneurial problem has an added dimension. Because the organization has already obtained a set of "solutions" to its engineering and administrative problems, its next attempt at an entrepreneurial "thrust" may be difficult. In the example of Porter Pump and Valve, the company's attempt to modify its products and markets was constrained by its present production process and by the fact that the general manager and his staff did not possess the needed marketing orientation.

In either a new or ongoing organization, the solution to the entrepreneurial problem is marked by management's acceptance of a particular product-market domain, and this acceptance becomes evident when management decides to commit resources to achieve objectives relative to the domain. In many organizations, external and internal commitment to the entrepreneurial solution is sought through the development and projection of an organizational "image" which defines both the organization's market and its orientation toward it (e.g., an emphasis on size, efficiency, or innovation).

Although we are suggesting that the engineering phase begins at this point, the need for further entrepreneurial activities clearly does not disappear. The entrepreneurial function remains a top-management responsibility, although as Bower (7) has described, the identification of a new opportunity and the initial impetus for movement toward it may originate at lower managerial levels.

### The Engineering Problem

The engineering problem involves the creation of a system which *operationalizes management's solution to the entrepreneurial problem*. Such a system requires management to select an appropriate technology (input-transformation-output process) for producing and distributing chosen products or services and to form new information, communication, and control linkages (or modify existing linkages) to ensure proper operation of the technology.

As solutions to these problems are reached, initial implementation of the administrative system takes place. There is no assurance that the configuration of the organization, as it begins to emerge during this phase, will remain the same when the engineering problem finally has been solved. The actual form of the organization's structure will be determined during the administrative phase as management solidifies relations with the environment and establishes processes for coordinating and controlling internal operations. Referring again to Porter Pump and Valve, the company's redefinition of its domain required concomitant changes in its technology — from a pure mass-production technology to more of a unit or small-batch technology (21).

### The Administrative Problem

The administrative problem, as described by most theories of management, is primarily that of reducing uncertainty within the organizational system, or, in terms of the present model, of rationalizing and stabilizing those activities which successfully solved problems faced by the organization during the entrepreneurial and engineering phases. Solving the administrative problem involves more than simply rationalizing the system already developed (uncertainty reduction); it also involves formulating and implementing those processes which will enable the organization to continue to evolve (innovation).

This conception of the administrative problem, as a pivotal factor in the cycle of adaptation, deserves further elaboration.

*Rationalization and Articulation* — In the ideal organization, management would be equally adept at performing two somewhat conflicting functions: it would be able to create an administrative system (structure and processes) that could smoothly direct and monitor the organization's current activities without, at the same time, allowing the system to become so ingrained that future innovation activities are jeopardized. Such a perspective requires the administrative system to be viewed as both a *lagging* and *leading* variable in the process of adaptation. As a lagging variable, it must rationalize, through the development of appropriate structures and processes, strategic decisions made at previous points in the adjustment process. As a leading variable, the administrative system must facilitate the organization's future capacity to adapt by articulating and reinforcing the paths along which innovative activity can proceed. At Porter Pump and Valve, management modified its planning, coordination, and control processes substantially in order to pursue the company's newly chosen areas of business (the "lagging" aspect of administration). At the same time, key personnel were added to the marketing department; their duties included product development, market research, and technical consulting. These activities were designed to keep PPV at the forefront of new product and market opportunities (the "leading" aspect of administration).

## The Strategic Typology

If one accepts the adaptive cycle as valid, the question becomes: How do organizations move through the cycle? That is, using the language of our model, what strategies do organizations employ in solving their entrepreneurial, engineering, and administrative problems? Our research and interpretation of the literature show that there are essentially three *strategic types* of organizations: Defenders, Analyzers, and Prospectors. Each type has its own unique strategy for relating to its chosen market(s), and each has a particular configuration of technology, structure, and process that is consistent with its market strategy. A fourth type of organization encountered in our studies is called the Reactor. The Reactor is a form of strategic "failure" in that inconsistencies exist among its strategy, technology, structure, and process.

Although similar typologies of various aspects of organizational behavior are available (1, 2, 3, 15, 16, 17), our formulation specifies relationships among strategy, technology, structure, and process to the point where entire organizations can be viewed as integrated wholes in dynamic interaction with their environments. Any typology is unlikely to encompass every form of organizational behavior — the world of organizations is much too changeable and complex to permit such a claim. Nevertheless, every organization that we have observed appears, when compared to other organizations in its industry, to fit predominantly into one of the four categories, and its behavior is generally predictable given its typological classification. The "pure" form of each of these organization types is described below.

### Defenders

The Defender (i.e., its top management) deliberately enacts and maintains an environment for which a stable form of organization is appropriate. Stability is chiefly achieved by the Defender's definition of, and solution to, its entrepreneurial problem. Defenders define their *entrepreneurial* problem as *how to seal off a portion of the total market in order to create a stable domain*, and they do so by producing only a limited set of products directed at a narrow segment of the total potential market. Within this limited domain, the Defender strives aggressively to prevent competitors from entering its "turf". Such behaviors include standard economic actions like competitive pricing or high-quality products, but Defenders also tend to ignore developments and trends outside of their domains, choosing instead to grow through market penetration and perhaps some limited product development. Over time, a true Defender is able to carve out and maintain a small niche within the industry which is difficult for competitors to penetrate.

Having chosen a narrow product-market domain, the Defender invests a great deal of resources in solving its *engineering* problem: *how to produce and distribute goods or services as efficiently as possible*. Typically, the Defender does so by developing a single core technology that is highly cost-efficient. Technological efficiency is central to the Defender's success since its domain has been deliberately created to absorb outputs on a predictable, continuous basis. Some Defenders extend technological efficiency to its limits through a process of vertical integration — incorporating each stage of production from raw materials supply to distribution of final output into the same organizational system.

Finally, the Defender's solution to its administrative problem is closely aligned with its solutions to the entrepreneurial and engineering problems. The Defender's *administrative* problem — *how to achieve strict control of the organization in order to ensure efficiency* — is solved through a combination of structural and process mechanisms that can be generally described as "mechanistic" (8). These mechanisms include a top-management group heavily dominated by production and cost-control specialists, little or no scanning of the environment for new areas of opportunity, intensive planning oriented toward cost and other efficiency issues, functional structures characterized by extensive division of labor, centralized control, communications through formal hierarchical channels, and so on. Such an administrative system is ideally suited for generating and maintaining efficiency, and the key characteristic of stability is as apparent here as in the solution to the other two adaptive problems.

Pursued vigorously, the Defender strategy can be viable in most industries, although stable industries lend themselves to this type of organization more than turbulent industries (e.g., the relative lack of technological change in the food-processing industry generally favors the Defender strategy compared with the situation in the electronics industry). This particular form of organization is not without its potential risks. The Defender's *primary risk* is that of *ineffectiveness* — being unable to respond to a major shift in its market environment. The Defender relies on the continued viability of its single, narrow domain, and it receives a return on its large technological investment only if the major problems facing the organization continue to be of an engineering nature. If the Defender's market shifts dramatically, this type of organization has little capacity for locating and exploiting new areas of opportunity. In short, the Defender is perfectly capable of responding to today's world. To the extent that tomorrow's world is similar to today's, the Defender is ideally suited for its environment. Table 1 summarizes the Defender's salient characteristics and the major strengths and weaknesses inherent in this pattern of adaptation.

### Prospectors

In many ways, Prospectors respond to their chosen environments in a manner that is almost the opposite of the Defender. In one sense, the Prospector is exactly like the Defender: there is a high degree of consistency among its solutions to the three problems of adaptation.

Generally speaking, the Prospector enacts an environment that is more dynamic than those of other types of organizations within the same industry. Unlike the Defender, whose success comes primarily from efficiently serving a stable domain, the Prospector's prime capability is that of finding and exploiting new product and market opportunities. For a Prospector, maintaining a reputation as an innovator in product and market development may be as important as, perhaps even more important, than high profitability. In fact, because of the inevitable "failure rate" associated with sustained product and market innovation, Prospectors may find it difficult

**TABLE 1. Characteristics of the Defender**

| Entrepreneurial Problem | Engineering Problem | Administrative Problem |
|---|---|---|
| *Problem:*<br>How to "seal off' a portion of the total market to create a stable set of products and customers. | *Problem:*<br>How to produce and distribute goods or services as efficiently as possible. | *Problem:*<br>How to maintain strict control of the organization in order to ensure efficiency. |
| *Solutions:*<br>1. Narrow and stable domain.<br>2. Aggressive maintenance of domain (e.g., competitive pricing and excellent customer service).<br>3. Tendency to ignore developments outside of domain.<br>4. Cautious and incremental growth primarily through market penetration.<br>5. Some product development but closely related to current goods or services. | *Solutions:*<br>1. Cost-efficient technology.<br>2. Single core technology.<br>3. Tendency toward vertical integration.<br>4. Continuous improvements in technology to maintain efficiency. | *Solutions:*<br>1. Financial and production experts most powerful members of the dominant coalition; limited environmental scanning.<br>2. Tenure of dominant coalition is lengthy; promotions from within.<br>3. Planning is intensive, cost oriented, and completed before action is taken.<br>4. Tendency toward functional structure with extensive division of labor and high degree of formalization.<br>5. Centralized control and long-looped vertical information systems.<br>6. Simple coordination mechanisms and conflict resolved through hierarchical channels.<br>7. Organizational performance measured against previous years; reward system favors production and finance. |
| *Costs and Benefits:*<br>It is difficult for competitors to dislodge the organization from its small niche in the industry, but a major shift in the market could threaten survival. | *Costs and Benefits:*<br>Technological efficiency is central to organizational performance, but heavy investment in this area requires technological problems to remain familiar and predictable for lengthy periods of time. | *Costs and Benefits:*<br>Administrative system is ideally suited to maintain stability and efficiency but it is not well suited to locating and responding to new product or market opportunities. |

Source: Raymond E. Miles and Charles C. Snow, *Organizational Strategy, Structure, and Process* (New York: McGraw-Hill, 1978) Table 3-1.

consistently to attain the profit levels of the more efficient Defender.

Defining its *entrepreneurial* problem as *how to locate and develop product and market opportunities*, the Prospector's domain is usually broad and in a continuous state of development. The systematic addition of new products or markets, frequently combined with retrenchment in other parts of the domain, gives the Prospector's products and markets an aura of fluidity uncharacteristic of the Defender. To locate new areas of opportunity, the Prospector must develop and maintain the capacity to survey a wide range of environmental conditions, trends, and events. This type of organization invests heavily in individuals and groups who scan the environment for potential opportunities. Because these scanning activities are not limited to the organization's current domain, Prospectors are frequently the creators of change in their respective industries. Change is one of the major tools used by the Prospector to gain an edge over competitors, so Prospector managers typically perceive more environmental change and uncertainty than managers of the Defender (or the other two organization types).

To serve its changing domain properly, the Prospector requires a good deal of flexibility in its technology and administrative system. Unlike the Defender, the Prospector's choice of products and markets is not limited to those which fall within the range of the organization's present technological capability. The Prospector's technology is contingent upon both the organization's current *and* future product mix: entrepreneurial activities always have primacy, and appropriate technologies are not selected or developed until late in the process of product development. Therefore, the Prospector's overall engineering problem is *how to avoid long-term commitments to a single type of technological process,* and the organization usually does so by creating multiple, prototypical technologies which have a low degree of routinization and mechanization.

Finally, the Prospector's *administrative* problem flows from its changing domain and flexible technologies: *how to facilitate rather than control organizational operations*. That is, the Prospector's administrative system must be able to deploy and coordinate resources among numerous decentralized units and projects rather than to plan and control the operations of the entire organization centrally. To accomplish overall facilitation and coordination, the Prospector's structure-process mechanisms must be "organic" (8). These mechanisms include a top-management group dominated by marketing and research and development experts, planning that is broad rather than intensive and oriented toward results not methods, product or project structures characterized by a low degree of formalization, decentralized control, lateral as well as vertical communications, and so on. In contrast to the Defender, the Prospector's descriptive catchword throughout its administrative as well as entrepreneurial and engineering solutions is "flexibility".

Of course, the Prospector strategy also has it costs. Although the Prospector's continuous exploration of change helps to protect it from a changing environment, this type of organization runs the *primary risk* of *low profitability and overextension of resources*. While the Prospector's technological flexibility permits a rapid response to a changing domain, complete efficiency cannot be obtained because of the presence of multiple technologies. Finally, the Prospector's administrative system is well suited to maintain flexibility, but it may, at least temporarily, underutilize or even misutilize physical, financial, and human resources. In short, the Prospector is effective — it can respond to the demands of tomorrow's world. To the extent that the world of tomorrow is similar to that of today, the Prospector cannot maximize profitability because of its inherent inefficiency. Table 2 summarizes the Prospector's salient characteristics and the major strengths and weaknesses associated with this pattern of adaptation.

### Analyzers

Based on our research, the Defender and the Prospector seem to reside at opposite ends of a continuum of adjustment strategies. Between these two extremes, a third type of organization is called the Analyzer. The Analyzer is a unique combination of the Prospector and Defender types and represents a viable alternative to these other strategies. A true Analyzer is an organization that attempts to minimize risk while maximizing the opportunity for profit — that is, an experienced Analyzer combines the strengths of both the Prospector and the De-

**TABLE 2. Characteristics of the Prospector**

| Entrepreneurial Problem | Engineering Problem | Administrative Problem |
|---|---|---|
| *Problem:*<br>How to locate and exploit new product and market opportunities. | *Problem:*<br>How to avoid long-term commitments to a single technological process. | *Problem:*<br>How to facilitate and coordinate numerous and diverse operations. |
| *Solutions:*<br>1. Broad and continuously developing domain.<br>2. Monitors wide range of environmental conditions and events.<br>3. Creates change in the industry.<br>4. Growth through product and market development.<br>5. Growth may occur in spurts. | *Solutions:*<br>1. Flexible, prototypical technologies.<br>2. Multiple technologies.<br>3. Low degree of routinization and mechanization; technology embedded in people. | *Solutions:*<br>1. Marketing and research and development experts most powerful members of the dominant coalition.<br>2. Dominant coalition is large, diverse, and transitory; may include an inner circle.<br>3. Tenure of dominant coalition not always lengthy; key managers may be hired from outside as well as promoted from within.<br>4. Planning is comprehensive, problem oriented, and cannot be finalized before action is taken.<br>5. Tendency toward product structure with low division of labor and low degree of formalization.<br>6. Decentralized control and short-looped horizontal information systems.<br>7. Complex coordination mechanisms and conflict resolved through integrators.<br>8. Organizational performance measured against important competitors; reward system favors marketing and research and development. |
| *Costs and Benefits:*<br>Product and market innovation protect the organization from a changing environment, but the organization runs the risk of low profitability and overextension of its resources. | *Costs and Benefits:*<br>Technological flexibility permits a rapid response to a changing domain, but the organization cannot develop maximum efficiency in its production and distribution system because of multiple technologies. | *Costs and Benefits:*<br>Administrative system is ideally suited to maintain flexibility and effectiveness but may underutilize and misutilize resources. |

Source: Raymond E. Miles and Charles C. Snow, *Organizational Strategy, Structure, and Process* (New York: McGraw-Hill, 1978), Table 4-1.

fender into a single system. This strategy is difficult to pursue, particularly in industries characterized by rapid market and technological change, and thus the word that best describes the Analyzer's adaptive approach is "balance".

The Analyzer defines its *entrepreneurial* problem in terms similar to both the Prospector and the Defender: *how to locate and exploit new product and market opportunities while simultaneously maintaining a firm core of traditional products and customers.* The Analyzer's solution to the entrepreneurial problem is also a blend of the solutions preferred by the Prospector and the Defender: the Analyzer moves toward new products or new markets but only after their viability has been demonstrated. This periodic transformation of the Analyzer's domain is accomplished through imitation — only the most successful product or market innovations developed by prominent Prospectors are adopted. At the same time, the majority of the Analyzer's revenue is generated by a fairly stable set of products and customer or client groups — a Defender characteristic. Thus, the successful Analyzer must be able to respond quickly when following the lead of key Prospectors while at the same time maintaining operating efficiency in its stable product and market areas. To the extent that it is successful, the Analyzer can grow through market penetration as well as product and market development.

The duality evident in the Analyzer's domain is reflected in its *engineering* problem and solution. This type of organization must learn *how to achieve and protect an equilibrium between conflicting demands for technological flexibility and for technological stability.* This equilibrium is accomplished by partitioning production activities to form a dual technological core. The stable component of the Analyzer's technology bears a strong resemblance to the Defender's technology. It is functionally organized and exhibits high levels of standardization, routinization, and mechanization in an attempt to approach cost efficiency. The Analyzer's flexible technological component resembles the Prospector's technological orientation. In manufacturing organizations, it frequently includes a large group of applications engineers (or their equivalent) who are rotated among teams charged with the task of rapidly adapting new product designs to fit the Analyzer's existing stable technology.

The Analyzer's dual technological core thus reflects the engineering solutions of both the Prospector and the Defender, with the stable and flexible components integrated primarily by an influential applied research group. To the extent that this group is able to develop solutions that match the organization's existing technological capabilities with the new products desired by product managers, the Analyzer can enlarge its product line without incurring the Prospector's extensive research and development expenses.

The Analyzer's administrative problem, as well as its entrepreneurial and engineering problems, contains both Defender and Prospector characteristics. Generally speaking, the *administrative* problem of the Analyzer is *how to differentiate the organization's structure and processes to accommodate both stable and dynamic areas of operation.* The Analyzer typically solves this problem with some version of a matrix organization structure. Heads of key functional units, most notably engineering and production, unite with product managers (usually housed in the marketing department) to form a balanced dominant coalition similar to both the Defender and the Prospector. The product manager's influence is usually greater than the functional manager's since his or her task is to identify promising product-market innovations and to supervise their movement through applied engineering and into production in a smooth and timely manner. The presence of engineering and production in the dominant coalition is to represent the more stable domain and technology which are the foundations of the Analyzer's overall operations. The Analyzer's matrix structure is supported by intensive planning between the functional divisions of marketing and production, broad-gauge planning between the ap-

**TABLE 3. Characteristics of the Analyzer**

| Entrepreneurial Problem | Engineering Problem | Administrative Problem |
|---|---|---|
| *Problem:*<br>How to locate and exploit new product and market opportunities while simultaneously maintaining a firm base of traditional products and customers. | *Problem:*<br>How to be efficient in stable portions of the domain and flexible in changing portions. | *Problem:*<br>How to differentiate the organization's structure and processes to accommodate both stable and dynamic areas of operation. |
| *Solutions:*<br>1. Hybrid domain that is both stable and changing.<br>2. Surveillance mechanisms mostly limited to marketing; some research and development.<br>3. Steady growth through market penetration and product-market development. | *Solutions:*<br>1. Dual technological core (stable and flexible component).<br>2. Large and influential applied engineering group.<br>3. Moderate degree of technical rationality. | *Solutions:*<br>1. Marketing and engineering most influential members of dominant coalition, followed closely by production.<br>2. Intensive planning between marketing and production concerning stable portion of domain; comprehensive planning among marketing, engineering, and product managers concerning new products and markets.<br>3. "Loose" matrix structure combining both functional divisions and product groups.<br>4. Moderately centralized control system with vertical and horizontal feedback loops.<br>5. Extremely complex and expensive coordination mechanisms; some conflict resolution through product managers, some through normal hierarchical channels.<br>6. Performance appraisal based on both effectiveness and efficiency measures, most rewards to marketing and engineering. |
| *Costs and Benefits:*<br>Low investment in research and development, combined with imitation of demonstrably successful products, minimizes risk, but domain must be optimally balanced at all times between stability and flexibility. | *Costs and Benefits:*<br>Dual technological core is able to serve a hybrid stable-changing domain, but the technology can never be completely effective or efficient. | *Costs and Benefits:*<br>Administrative system is ideally suited to balance stability and flexibility, but if this balance is lost, it may be difficult to restore equilibrium. |

Source: Raymond E. Miles and Charles C. Snow, *Organizational Strategy, Structure, and Process* (New York: McGraw-Hill, 1978), Table 5-1.

plied research group and the product managers for the development of new products, centralized control mechanisms in the functional divisions and decentralized control techniques in the product groups, and so on. In sum, the key characteristic of the Analyzer's administrative system is the proper differentiation of the organization's structure and processes to achieve a balance between the stable and dynamic areas of operation.

As is true for both the Defender and Prospector, the Analyzer strategy is not without its costs. The duality in the Analyzer's domain forces the organization to establish a dual technological core, and it requires management to operate fundamentally different planning, control, and reward systems simultaneously. Thus, the Analyzer's twin characteristics of stability and flexibility limit the organization's ability to move fully in either direction were the domain to shift dramatically. Consequently, the Analyzer's *primary risks* are both *inefficiency and ineffectiveness* if it does not maintain the necessary balance throughout its strategy-structure relationship. Table 3 summarizes the Analyzer's salient characteristics and the major strengths and weaknesses inherent in this pattern of adaptation.

**Reactors**

The Defender, the Prospector, and the Analyzer can all be proactive with respect to their environments, though each is proactive in a different way. At the extremes, Defenders continually attempt to develop greater efficiency in existing operations while Prospectors explore environmental change in search of new opportunities. Over time, these action modes stabilize to form a pattern of response to environmental conditions that is both *consistent* and *stable*.

A fourth type of organization, the Reactor, exhibits a pattern of adjustment to its environment that is both *inconsistent* and *unstable;* this type lacks a set of response mechanisms which it can consistently put into effect when faced with a changing environment. As a consequence, Reactors exist in a state of almost perpetual instability. The Reactor's "adaptive" cycle usually consists of responding inappropriately to environmental change and uncertainty, performing poorly as a result, and then being reluctant to act aggressively in the future. Thus, the Reactor is a "residual" strategy, arising when one of the other three strategies is improperly pursued.

Although there are undoubtedly many reasons why organizations become Reactors, we have identified three. First, *top management may not have clearly articulated the organization's strategy*. For example, one company was headed by a "one-man" Prospector of immense personal skills. A first-rate architect, he led his firm through a rapid and successful growth period during which the company moved from the design and construction of suburban shopping centers, through the construction and management of apartment complexes, and into consulting with municipal agencies concerning urban planning problems. Within ten years of its inception, the company was a loose but effective collection of semi-autonomous units held together by this particular individual. When this individual was suddenly killed in a plane crash, the company was thrown into a strategic void. Because each separate unit of the company was successful, each was able to argue strongly for more emphasis on its particular domain and operations. Consequently, the new chief executive officer, caught between a number of conflicting but legitimate demands for resources, was unable to develop a unified, cohesive statement of the organization's strategy; thus, consistent and aggressive behavior was precluded.

A second and perhaps more common cause of organizational instability is that *management does not fully shape the organization's structure and processes to fit a chosen strategy*. Unless all of the domain, technological, and administrative decisions required to have an operational strategy are properly aligned, strategy is a mere statement, not an effective guide to behavior. One publishing company wished, in effect, to become an Analyzer — management had articulated a direction for the organization which involved operating in both stable and changing domains within the college textbook publishing industry. Although the organization was comprised of several key Defender and Prospector characteristics such as functional structures and decentralized control mechanisms, these structure-process features were not appropriately linked to the company's different domains. In one area where the firm wished to "prospect", for example, the designated unit had a functional structure and shared a large, almost mass-production technology with several other units, thereby making it difficult for the organization to respond to market opportunities quickly. Thus, this particular organization exhibited a weak link between its strategy and its structure-process characteristics.

The third cause of instability — and perhaps ultimate failure — is *a tendency for management to maintain the organization's current strategy-structure relationship despite overwhelming changes in environmental conditions*. Another organization in our studies, a food-processing company, had initially been an industry pioneer in both the processing and marketing of dried fruits and nuts. Gradually, the company settled into a Defender strategy and took vigorous steps to bolster this strategy, including limiting the domain to a narrow line of products, integrating backward into growing and harvesting, and assigning a controller to each of the company's major functional divisions as a means of keeping costs down. Within recent years, the company's market has become saturated, and profit margins have shrunk on most of the firm's products. In spite of its declining market, the organization has consistently clung to a Defender strategy and structure, even to the point of creating ad hoc cross-divisional committees whose sole purpose was to find ways of increasing efficiency further. At the moment, management recognizes that the organization is in trouble, but it is reluctant to make the drastic modifications required to attain a strategy and structure better suited to the changing market conditions.

Unless an organization exists in a "protected" environment such as a monopolistic or highly-regulated industry, it cannot continue to behave as a Reactor indefinitely. Sooner or later, it must move toward one of the consistent and stable strategies of Defender, Analyzer, or Prospector.

## Management Theory Linkages to Organizational Strategy and Structure

Organizations are limited in their choices of adaptive behavior to those which top management believes will allow the effective direction and control of human resources. Therefore, top executives' theories of management are an important factor in analyzing an organization's ability to adapt to its environment. Although our research is only in its preliminary stage, we have found some patterns in the relationship between management theory and organizational strategy and structure.

A theory of management has three basic components: (a) a set of assumptions about human attitudes and behaviors, (b) managerial policies and actions consistent with these assumptions, and (c) expectations about employee performance if these policies and actions are implemented (see Table 4). Theories of management are discussed in more detail in Miles (**14**).

During the latter part of the 19th Century and the early decades of the 20th, mainstream management theory, as voiced by managers and by management scholars, conformed to what has been termed the *Traditional* model. Essentially, the Traditional model maintained that the capability for effective decision making was narrowly distributed in organizations, and this approach thus legitimized unilateral control of organizational systems by top management. According to this model, a select group of owner-managers was able to direct large numbers of employees by carefully standardizing and routinizing their work and by placing the planning function solely in the hands of top managers. Under this type of management system, employees could be expected to perform up to some minimum standard, but few would be likely to exhibit truly outstanding performance.

Beginning in the twenties, the Traditional model gradually began to give way to the *Hu-*

**TABLE 4. Theories of Management**

| Traditional Model | Human Relations Model | Human Resources Model |
|---|---|---|
| *Assumptions* | *Assumptions* | *Assumptions* |
| 1. Work is inherently distasteful to most people.<br>2. What workers do is less important than what they earn for doing it.<br>3. Few want or can handle work which requires creativity, self-direction, or self-control. | 1. People want to feel useful and important.<br>2. People desire to belong and to be recognized as individuals.<br>3. These needs are more important than money in motivating people to work. | 1. Work is not inherently distasteful. People want to contribute to meaningful goals which they have helped establish.<br>2. Most people can exercise far more creative, responsible self-direction and self-control than their present jobs demand. |
| *Policies* | *Policies* | *Policies* |
| 1. The manager's basic task is to closely supervise and control his (her) subordinates.<br>2. He (she) must break tasks down into simple, repetitive, easily learned operations.<br>3. He (she) must establish detailed work routines and procedures and enforce these firmly but fairly. | 1. The manager's basic task is to make each worker feel useful and important.<br>2. He (she) should keep his (her) subordinates informed and listen to their objections to his (her) plans.<br>3. The manager should allow his (her) subordinates to exercise some self-direction and self-control on routine matters. | 1. The manager's basic task is to make use of his (her) "untapped" human resources.<br>2. He (she) must create an environment in which all members may contribute to the limits of their ability.<br>3. He (she) must encourage full participation on important matters, continually broadening subordinate self-direction and control. |
| *Expectations* | *Expectations* | *Expectations* |
| 1. People can tolerate work if the pay is decent and the boss is fair.<br>2. If tasks are simple enough and people are closely controlled, they will produce up to standard. | 1. Sharing information with subordinates and involving them in routine decisions will satisfy their basic needs to belong and to feel important.<br>2. Satisfying these needs will improve morale and reduce resistance to formal authority—subordinates will willingly cooperate and produce. | 1. Expanding subordinate influence, self-direction, and self-control will lead to direct improvements in organizational performance.<br>2. Work satisfaction may improve as a "by-product" of subordinates making full use of their resources. |

[a] Source: Raymond E. Miles, *Theories of Management* (New York: McGraw-Hill, 1975), Figure 3-1.

*man Relations* model. This model accepted the traditional notion that superior decision-making competence was narrowly distributed among the employee population but emphasized the universality of social needs for belonging and recognition. This model argued that impersonal treatment was the source of subordinate resistance to managerial directives, and adherents of this approach urged managers to employ devices to enhance organization members' feelings of involvement and importance in order to improve organizational performance. Suggestion systems, employee counseling, and even company unions had common parentage in this philosophy. The Depression and World War II both acted to delay the development and spread of the Human Relations model, and it was not until the late forties and early fifties that it became the prime message put forth by managers and management scholars.

Beginning in the mid-fifties, a third phase in the evolution of management theory began with the emergence of the *Human Resources* model which argued that the capacity for effective decision making in the pursuit of organizational objectives was widely dispersed and that most organization members represented untapped resources which, if properly managed, could considerably enhance organizational performance. The Human Resources approach viewed management's role not as that of a controller (however benevolent) but as that of a facilitator — removing the constraints that block organization members' search for ways to contribute meaningfully in their work roles. In recent years, some writers have questioned the extent to which the Human Resources model is applicable, arguing for a more "contingent" theory emphasizing variations in member capacity and motivation to contribute and the technological constraints associated with broadened self-direction and self-control. The Human Resources model probably still represents the leading edge of management theory, perhaps awaiting the formulation of a successor model.

## Linking the Strategic Typology to Management Theory

Are there identifiable linkages between an organization's strategic type and the management theory of its dominant coalition? For example, do top executives in Defenders profess Traditional beliefs about management and those in Prospectors a Human Resources philosophy? The answer to this question is, in our opinion, a bit more complex than simply "yes" or "no".

One of our studies investigated aspects of the relationship between organizational strategy-structure and management theory. Although the results are only tentative at this point, relatively clear patterns emerged. In general, Traditional and Human Relations managerial beliefs are more likely to be found in Defender and Reactor organizations, while Human Resources beliefs are more often associated with Analyzer and Prospector organizations. But this relationship appears to be *constrained in one direction;* it seems highly unlikely that a Traditional or Human Relations manager can function effectively as the head of a Prospector organization. The prescriptions of the Traditional model simply do not support the degree of decentralized decision making required to create and manage diversified organizations. It is quite possible for a Human Resources manager to lead a Defender organization. Of course, the organization's planning and control processes under such leadership would be less centralized than if the organization were managed according to the Traditional model. Using the Human Resources philosophy, heads of functional divisions might either participate in the planning and budgeting process, or they might simply be delegated considerable autonomy in operating their cost centers. (In Defender organizations operated according to the Human Resources philosophy, human capabilities are aimed primarily at cost efficiency rather than product development.)

The fit between management theory and the strategy, structure, and process characteristics of Analyzers is perhaps more complex than with any of the other types. Analyzers, as previously described, tend to remain cost efficient in the production of a limited line of goods or services while attempting to move as rapidly as possible into promising new areas opened up by Prospectors. Note that the organization structure of the Analyzer does not demand extensive, permanent delegation of decision-making authority to division managers. Most of the Analyzer's products or services can be produced in functionally structured divisions similar to those in Defender organizations. New products or services may be developed in separate divisions or departments created for that purpose and then integrated as quickly as possible into the permanent technology and structure. It seems likely to us, although our evidence is inconclusive, that various members of the dominant coalition in Analyzer organizations hold moderate but different managerial philosophies, that certain key executives believe it is their role to pay fairly close attention to detail while others appear to be more willing to delegate, for short periods, moderate amounts of autonomy necessary to bring new products or services on line rapidly. If these varying managerial philosophies are "mismatched" within the Analyzer's operating units — if, for example, Traditional managers are placed in charge of innovative subunits — then it is unlikely that a successful Analyzer strategy can be pursued.

Holding together a dominant coalition with mixed views concerning strategy and structure is not an easy task. It is difficult, for example, for managers engaged in new product or service development to function within planning, control, and reward systems established for more stable operations, so the Analyzer must be successfully differentiated into its stable and changing areas and managed accordingly. Note that experimentation in the Analyzer is usually quite limited. The exploration and risk associated with major product or service breakthroughs are not present (as would be the case in a Prospector), and thus interdependencies within the system may be kept at a manageable level. Such would not be the case if Analyzers attempted to be both cost-efficient producers of stable products or services and active in a major way in new product and market development. Numerous organizations are today being led or forced into such a mixed strategy (multinational companies, certain forms of conglomerates, many organizations in high-technology industries, etc.), and their struggles may well produce a new organization type and demands for a supporting theory of management. Whatever form this new type of organization takes, however, clearly its management-theory requirements will closely parallel or extend those of the Human Resources model (15).

## Conclusions

Our research represents an initial attempt: (a) to portray the major elements of organizational adaptation, (b) to describe patterns of behavior used by organizations in adjusting to their environments, and (c) to provide a language for discussing organizational behavior at the total-system level. Therefore, we have offered a theoretical framework composed of a model of the adaptive process (called the adaptive cycle) and four empirically determined means of moving through this process (the strategic typology). In addition, we have related this theoretical framework to available theories of management (Traditional, Human Relations, Human Resources). Effective organizational adaptation hinges on the ability of managers to not only envision and implement new organizational forms but also to direct and control people within them.

We believe that managers' ability to meet successfully environmental conditions of tomorrow revolves around their understanding of organizations as integrated and dynamic wholes. Hopefully, our framework offers a theory and language for promoting such an understanding.

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International Finance Corporation
World Bank Group

# The Irresistible Case for Corporate Governance

September 2005

Corporate Governance Department

IFC/World Bank

## Good corporate governance won't just keep your companies out of trouble. Well-governed companies often draw huge investment premiums, get access to cheaper debt, and outperform their peers.

*How much is good governance worth to a company? Will good practices raise your bond rating a notch…or two? Will your stock price soar 160%? 70,000%? Will investors pay a premium to own your stock of 20%? 30%?*

A commitment to good corporate governance—well-defined shareholder rights, a solid control environment, high levels of transparency and disclosure, and an empowered board of directors—make a company both more attractive to investors and lenders, and more profitable. Simply put: it pays to promote good corporate governance.

### Investors Will Pay for Good Governance

Investors say they highly value corporate governance. And they put their money where their mouths are.

In both OECD and emerging market countries, well-governed companies attract premium valuations.

- Well-governed firms in Korea traded at a premium of **160 percent** to poorly governed firms, a study by Korean and US researchers found.[1]
- An ABN/AMRO study showed that Brazil-based firms with the best corporate governance ratings garnered 2004 **P/E ratios that were 20% higher** than firms with the worst governance ratings.[2]
- A study of Russian firms showed that a worst-to-best improvement in corporate governance predicted an astronomical **700-fold (70,000%) increase in firm value.** The study's sample size was small (21 firms), so it's unlikely that such a huge increase would occur in a larger, more representative sample. However, the study still demonstrated a correlation between improved corporate governance and firm value.[3]
- A study of S&P 500 firms by Deutsche Bank showed that companies with strong or improving corporate governance **outperformed** those with poor or deteriorating governance practices **by about 19%** over a two-year period.[4]
- A Harvard/Wharton study showed that if an investor purchased shares in US firms with the strongest shareholder rights, and sold shares in the ones with the weakest shareholder rights, that investor would have earned **abnormal returns of 8.5 percent** per year.[5]
- In a 2002 McKinsey survey,[6] institutional investors said they would pay premiums to own well-governed companies. Premiums averaged:
    1. **30% in Eastern Europe and Africa**
    2. **22% in Asia and Latin America**

### Good Governance Makes for Cheaper Debt

Better corporate governance standards make banks and rating agencies see companies in a better light. This means lower borrowing costs for well-governed firms.

- In late 2004, **Romania's Banca Comerciala Romana (BCR) was upgraded** by FitchRatings (individual rating to C/D from D) and S&P (long-term counterparty rating to BB- from B+), citing improvements in corporate governance and risk management as the major reasons for the upgrades. IFC led major changes to BCR's corporate governance, bringing the bank in line with EU standards. The corporate governance improvements IFC spearheaded with BCR will be a model for good corporate governance practice for other financial institutions in the region.

## Good Governance Helps Operations, Too

Investors won't just think your company will perform better for being well-governed—it's likely that it *will* perform better.

- A study of the 100 largest emerging market companies by Credit Lyonnais Securities Asia (CLSA)[7] in 2001 showed that companies with the best corporate governance in each of a large number of emerging market countries **had eight percentage points higher measures of EVA** (economic value added) than firms in their country average.
- A Harvard/Wharton team (previously mentioned) also found that U.S.-based firms with better governance have **faster sales growth** and were **more profitable** than their peers.
- An ABN/AMRO study (previously mentioned) showed that Brazilian firms with above-average corporate governance had **ROEs that were 45% higher and net margins that were 76% higher** than those with below-average governance practices.

## Better Access to IFC

It's a reputational and financial risk for IFC to invest in companies that are not committed to good corporate governance practices. IFC staff and management are trained to detect and evaluate governance risk and future opportunities in potential investees. This means that investment officers, their managers and IFC's credit review function are more likely to be convinced to advance with an operation when it can be shown that the company is committed to the continuous process of refining its governance practices. Good governance is a key part of creating a more valuable company for all stakeholders.

## Corporate Governance and IFC

Of course, IFC investment officers have always dealt with corporate governance issues. It is part of the business of investing in growing firms. However, by integrating corporate governance into their work with companies, investment officers can add value to both the deal and the company.

For a look at why IFC feels corporate governance is important, visit:
http://ifchq14.ifc.org/ifcint/corpgov.nsf/Content/WhyCG

For a look at the corporate governance methodology, visit:
http://ifchq14.ifc.org/ifcint/corpgov.nsf/Content/Approach

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## Resources

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