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# The Impact of Corporate Governance on Financial Statement Integrity: A Study of Accounting Irregularities in South African Firms

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**Abstract**: This study addresses the critical issue of accounting irregularities, focusing on their prevalence within South African firms and the broader global context. The paper highlights numerous high-profile cases of financial misstatement, including the infamous Enron scandal, and examines their profound impacts on trust and accountability in the financial industry. These cases underscore the importance of transparency and accountability in finance, emphasizing the need for rigorous auditing and ethical practices to prevent future occurrences. The research adopts a mixed-methods approach, integrating qualitative and quantitative methodologies to offer a comprehensive perspective on financial statement fraud detection. This approach is particularly apt for the complex, multifaceted nature of finance and accounting disciplines in the social sciences. The study utilizes a range of research designs, including exploratory, descriptive, correlational, and causal-comparative methods, to investigate a target population drawn from 20 companies linked to the Johannesburg Stock Exchange. Data analysis in the study leverages both qualitative and quantitative techniques, enabling the identification of significant patterns and trends in financial irregularities. The research findings contribute to a deeper understanding of financial transparency, providing valuable insights for professional organizations, governments, and academics engaged in safeguarding financial systems and promoting corporate trust. Overall, this study serves as a vital resource in understanding and combating financial statement fraud, highlighting the ongoing efforts and strategies necessary to maintain integrity in financial reporting and corporate governance.

**Keywords:** Corporate Fraud, Financial Irregularities, Johannesburg Stock Exchange (JSE), Accounting Manipulation, South African Firms

## 1. INTRODUCTION

In recent years, there has been a growing concern surrounding accounting irregularities not only within South African firms but also on a global scale. These irregularities have raised significant alarm, particularly in cases where financial statements have been manipulated to artificially enhance the financial outlook of the companies involved. (Onesti & Palumbo, 2023) This troubling trend has cast a shadow over the integrity of financial reporting and corporate governance. Among the companies that have faced scrutiny for their financial statement irregularities are well-known names such as New Republic Bank, Beige, Masterbond, Macmed, Saambou, Unifer, Regal Bank, and Leisurenet (Habib et al., 2023). While

some of these companies managed to navigate through the turbulent waters and survive the aftermath of their irregularities, the majority found it insurmountably challenging to recover. The discovery and subsequent exposure of their financial wrongdoing in 2012 marked a turning point, leading to the downfall of many of these once-prominent firms. This serves as a stark reminder of the importance of transparency and accountability in the world of finance and business, highlighting the need for stricter oversight and ethical conduct to prevent such occurrences in the future.

Arthur Andersen, a prominent international auditing firm that was entrusted with the audit of Enron, stands out as a glaring example of a firm entangled in a major audit failure. The Enron scandal, which unfolded in the early 2000s, exposed critical weaknesses in the audit process, shaking the very foundations of trust and accountability within the financial industry. This pivotal case cast a shadow of doubt over the effectiveness of auditing practices, prompting a collective call for professional accountants to hone their skills in detecting financial statement fraud more effectively. In the aftermath of the Enron debacle, the consensus grew stronger that the accounting profession must undergo a transformative shift. One of the most compelling strategies to achieve this transformation is to glean valuable insights from the mistakes made by Arthur Andersen and other similar cases. It is imperative for accountants to adopt a proactive stance in learning from past audit failures. (Maria Ulfa & Ermian Challen, 2020) While enforcement actions against auditors have historically been relatively rare, there is a palpable expectation that such actions will become more frequent in the future. The financial repercussions and reputational damage stemming from individual audit failure cases can be substantial, underscoring the critical need for auditors to continually improve their practices. The lessons drawn from these audit failures offer the accounting profession a unique opportunity for growth and development. By dissecting the shortcomings and missteps in these high-profile cases, accountants can fortify their expertise, enhance their ability to uncover financial irregularities, and reinforce the integrity of financial reporting. In essence, the Enron-Arthur Andersen episode serves as a stark reminder that vigilance, scrutiny, and a commitment to continuous improvement are paramount in maintaining the trust and credibility of the accounting profession (Maria Ulfa & Ermian Challen, 2020).

In the tumultuous financial landscape of the 1990s, two colossal bankruptcy cases shook the international business world, both rooted in the sinister realm of financial statements fraud. These corporate behemoths, WorldCom and Enron, had once stood as paragons of global reputation and success (Maria Ulfa & Ermian Challen, 2020). However, the fallout from their fraudulent misdeeds was not confined to the boardrooms of these companies; it rippled outwards, casting a wide net of devastation. Investors, who had placed their trust and resources in these giants, found their portfolios in shambles. Customers, who relied on their services, were left in the lurch. Employees, the lifeblood of these corporations, faced uncertain futures. Insurance companies were left grappling with massive claims, while accounting and auditing firms were scrutinized for their roles in the debacle. Government entities were forced to intervene to restore order, and other stakeholders were left counting their losses (Agung et al., 2023).

Beyond the immediate financial implications, the damage ran deeper. These corporate collapses led to diminished productivity, as entire industries reeled from the shockwaves. Sales figures plummeted as consumer confidence waned, and the credibility of the financial sector as a whole took a severe hit. The perception of professional conduct within certain financial services firms, which had maintained business ties with the fraudulent entities, was tarnished, further eroding trust in the industry. The repercussions of WorldCom and Enron's fraudulent reporting serve as a stark reminder of the far-reaching consequences of financial malfeasance on a global scale. (Kumar Sharma, n.d.)

In the realm of financial accountability and transparency, professional organizations and governments worldwide have played a pivotal role by formulating comprehensive guidelines and enacting laws aimed at preventing accounting irregularities. These measures serve as crucial safeguards to maintain the integrity of financial systems. Noteworthy among these initiatives is the Sarbanes-Oxley Act in the

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United States, a landmark legislation that introduced stringent regulations and standards for corporate governance and financial reporting. Similarly, the United Kingdom's Turnbull Guide on corporate governance and South Africa's King Report have provided essential frameworks for ensuring transparency and ethical conduct in corporate practices on an international scale. However, the quest for financial transparency extends beyond regulatory bodies and government interventions. Academics have made significant contributions to this endeavor through rigorous research and the development of methodologies designed to identify and address financial statement fraud. One prominent example is the research conducted by Dechow, Ge, Larson, and Sloan in their 2011 study, which serves as a comprehensive synthesis of various studies focused on predicting accounting misstatements. In their analysis, they employ the Beneish model, a powerful tool for assessing the probability of detecting earnings manipulation. This model, along with similar analytical approaches, has played a critical role in enhancing financial accountability and bolstering investor confidence. Moreover, the study conducted by Omar, Koya, Sanusi, and Shafie in 2014 is a testament to the ongoing efforts in this field. Their research delves into the intricate aspects of earnings manipulation detection, further advancing our understanding of financial transparency. Collectively, these combined efforts by professional organizations, governments, and academics serve as a formidable force in safeguarding financial systems against irregularities and promoting trust in the corporate world.

## 2. MATERIALS AND METHODS

### Research Design

The research design is a critical component of any study, acting as a master plan that guides the entire research process. This design is meticulously crafted to integrate various components of the study, ensuring they work together in a cohesive and logical manner. The primary aim of this approach is to address the research problem effectively, leaving no stone unturned in the pursuit of accurate and reliable results. As a blueprint, it dictates the methodologies for data collection, measurement, and analysis, setting clear guidelines and protocols to be followed. O'Leary (2017) emphasizes the importance of a well-thought-out research design, as it is instrumental in ensuring that the data gathered is relevant, valid, and capable of providing insightful answers to the research questions posed. In essence, the research design is not just a procedural roadmap but also a critical determinant of the study's overall integrity and success.

### Exploratory Research Design

Exploratory research, as the name implies, intends merely to explore the research questions and does not intend to offer final and conclusive solutions to existing problems Saunders, Lewis and Thornhill (2012). This type of research is usually conducted to study a problem that has not been clearly defined yet. It is conducted in order to determine the nature of the problem, exploratory research is not intended to provide conclusive evidence, but helps to have a better understanding of the problem.

### Descriptive Research Design

Descriptive research, as outlined by Sekaran and Bougie (2016), serves as a foundational approach in the field of research, primarily focusing on the depiction and characterization of various situations, subjects, behaviors, or phenomena. This type of research is instrumental in answering fundamental questions such as who is involved, what the subject matter is, when and where it occurs, and how it manifests. The primary objective here is to provide a detailed, accurate representation of "what is" in a given context. This involves gathering quantifiable information that is crucial for the statistical analysis of a target audience or a particular subject, thereby enabling a deeper understanding of the researched topic.

Patten and Newhart (2017) further refine this concept by emphasizing the non-intrusive nature of descriptive research. In their view, this research method involves observing and describing a subject or problem without manipulating any of the variables involved. This approach distinguishes itself by being correlational or observational rather than experimental. As such, it lends itself to producing conclusive,

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rather than exploratory, results. Importantly, descriptive research is not designed to explore the reasons behind phenomena ('why') or to make inferences, predictions, or establish causal relationships. It remains focused on the observable and measurable aspects of its subject.

There are three primary methodologies employed in descriptive research: observational, case studies, and surveys. Observational research involves systematically viewing and recording the behaviors and characteristics of participants in their natural settings. Case studies delve deeper, offering an in-depth examination of an individual or group, providing detailed insights into complex issues. Surveys, on the other hand, are more concise, typically involving brief interviews or discussions with individuals on specific topics. Each of these methods contributes uniquely to the overarching goal of descriptive research, providing a comprehensive understanding of the subject at hand from multiple perspectives.

**Research Philosophy**

Research philosophy, as explained by Eriksson and Kovalainen (2015), is a set of beliefs guiding the collection, analysis, and application of data regarding a phenomenon. It forms a crucial component of research methodology and is categorized into ontology, epistemology, and axiology. This framework helps researchers select appropriate approaches based on their research questions, as highlighted by Saunders, Lewis, and Thornhill (2009). Central to this philosophy are underlying assumptions that shape the researcher's perspective of the world, which in turn influence the chosen research strategy and its methods.

**Quantitative Vs Qualitative**

This research employs a comprehensive mixed-methods approach, intricately blending qualitative and quantitative research methodologies. As noted by Creswell, J.W., and Creswell (2017), this approach emphasizes the importance of collecting, analyzing, and synthesizing data from both qualitative and quantitative sources within a single study framework. The rationale behind this methodology is to capitalize on the strengths of both qualitative and quantitative research, thereby providing a more nuanced and holistic understanding of the research subject. Although mixed-methods research may not conform to the strict scientific precision characteristic of traditional research methods, its significance in the context of finance and accounting is particularly notable. Given that finance and accounting are integral components of social sciences, a field known for its complexity and variability, traditional research methods often fall short in capturing the multifaceted nature of these disciplines. In this regard, (Melda et al., 2023) argue that the social sciences, unlike the natural sciences, cannot be investigated with absolute objectivity. The inherent subjectivity and varied human experiences in social sciences necessitate a more flexible and encompassing research approach. (Mulyadi et al., 2022) By integrating diverse data types and research methodologies, the mixed-methods approach enables a deeper and more comprehensive understanding of complex social science issues. This integrative approach is especially beneficial in uncovering underlying patterns, behaviors, and motivations that might otherwise remain obscured in purely quantitative or qualitative analyses. Ultimately, the mixed-methods approach not only enriches the depth of understanding but also positions researchers to be more effective in developing practical, real-world solutions to the problems investigated.

**Survey Research**

Survey Research is a quantitative research method used to ask questions to a sample of respondents using sources such as online polls, surveys, questionnaires via email, social media or embedding on a website. Every small and big organization intends to understand what their customers think about their products and services, how well are new features faring in the market and other such details.

**Correlational Research**

Correlation research is conducted to establish a relationship between two closely knit entities and how one impacts the other and what are the changes that are eventually observed Trochim, Donnelly, and Arora, (2015). This research method is carried out to give value to naturally occurring relationships and a

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minimum of two different groups are required to successfully conduct this quantitative research method. Without assuming different aspects, a relationship between two groups or entities must be established.

**Causal-Comparative Research**

This research method mainly depends on the factor of comparison. Also called the quasi-experimental research, this quantitative research method is used by researchers to draw conclusions about cause-effect equation between two or more variables, where one variable is dependent on the other independent variable. The independent variable is established but not manipulated and its impact on the dependent variable is observed. These variables or groups must be formed as they exist in the natural set up. As the dependent and independent variables will always exist in a group, it is advised that the conclusions are carefully established by keeping all the factors in mind.

**Target Population**

In Ngoma's 2018 study, detailed on pages 120-125, the concept of 'population' is meticulously defined. It's described as an inclusive group, incorporating every individual, object, or member that aligns with a specific set of predetermined criteria. This thorough definition is pivotal for fully comprehending the scale and breadth of the research undertaken. The study zeroes in on a population drawn from 20 distinct companies, each with a significant link to the Johannesburg Stock Exchange, a prominent financial market in South Africa. This selection is strategic and two-fold: half of these companies, amounting to 10, were actively listed on the Exchange at the time of the study, signifying their ongoing market relevance. In contrast, the other half had a historical connection with the Exchange, having been listed in the past. This deliberate choice of companies, representing both current and former Exchange affiliates, furnishes a richly varied field for examination. It allows for an expansive and thorough analysis, providing deeper insights and a more nuanced understanding of the subject matter being studied.

**The Eligibility Criteria**

In the context of this research, as detailed by Bryman (2016), the eligibility criteria play a crucial role in defining the scope and validity of the study. These criteria establish the essential characteristics that must be present in individuals or entities within the target demographic to be considered for inclusion in the research. Specifically, for this study, the focus was on entities with a connection to the Johannesburg Stock Exchange. The first requirement was that these entities needed to have been actively listed on the Johannesburg Stock Exchange during the period extending from 1999 to 2017. This inclusion criterion ensures that the study targets organizations that were publicly traded and subject to the financial dynamics and regulatory environment of this specific time frame. Secondly, the study also considered entities that were previously listed on the Johannesburg Stock Exchange within the same period. This aspect broadens the scope to include organizations that may have been delisted but were still operational or influential during the specified years. Lastly, a critical criterion for selection was the identification of the entities for financial misappropriation, accompanied by media coverage between 1999 and 2017. This criterion is vital as it focuses on entities that faced allegations or instances of financial irregularities, thus providing a rich context for examining the impacts and patterns of such activities within the South African corporate landscape during the stated period.

**Sample Procedure**

A sample in research, as described by Patten and Newhart (2017), is a subset of a larger population, chosen for measurement. This subset should accurately reflect the larger group, allowing for the generalization of research findings from the sample to the entire population, a principle underscored by Etikan, Musa, and Alkassim (2016, pp.1-4). In this particular study, the sample comprises 10 firms from the JSE, selected based on the availability of their financial data in the McGregor database. This group includes 5 companies delisted from the JSE due to fraud incidents, and 5 firms without such incidents, still listed on the JSE. Choosing a sample over the entire population facilitated significant time and cost savings.

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The practicality of collecting, analyzing, and interpreting data from the whole population was limited by the time and financial resources available for this research.

### Data Analysis

Data analysis involves systematically applying statistical or logical methods to describe, illustrate, condense, and evaluate data. Shamoo and Resnik (2003) suggest that numerous analytical methods help in drawing inductive inferences from data and distinguishing significant phenomena from statistical noise. In qualitative research, data analysis might involve statistical methods, but often it is a continuous, iterative process where data collection and analysis happen nearly simultaneously. Researchers, as (Maria Ulfa & Ermian Challen, 2020) notes, look for patterns in observations throughout the data collection phase. The specific type of analysis depends on the qualitative approach used, whether it be field study, ethnography, content analysis, oral history, biography, or unobtrusive research, and on the nature of the data, like field notes, documents, or audio and videotapes.

### Beneish Model

Professor Messod D. Beneish from Indiana University Bloomington, along with his associates, conducted a comprehensive investigation into the quantitative indicators of earnings manipulation. This extensive research led to the development of the Beneish model in 1999, which was further refined in 2013. This innovative model is a sophisticated mathematical construct that employs a range of financial ratios and eight distinct variables. These variables are meticulously extracted from a company's financial statements, and they play a crucial role in determining the probability of earnings manipulation. The culmination of this analysis is the M-Score, a specialized metric that quantifies the extent of potential manipulation in a company's financial reporting.

In a remarkable application of the Beneish model, students from Cornell University demonstrated its practical efficacy. They used the Beneish M-Score to identify Enron as an entity engaged in earnings manipulation. This identification was particularly noteworthy because it occurred during a period when experienced financial analysts had not detected any signs of manipulation, a fact highlighted by Business Insider in 2011. This instance underscored the model's effectiveness and precision. The current study aims to further validate the Beneish model by applying it retrospectively. The focus is on whether the model could have successfully detected fraudulent activities in certain companies, specifically a year before the fraudulent misrepresentation of their financial statements was publicly uncovered. This retrospective analysis serves not only to test the model's predictive power but also to shed light on the subtle indicators of financial malfeasance that may go unnoticed even by seasoned professionals.

## 3. RESULTS

### Identification of Companies with Known Violations

The study has identified a group of companies known for reported violations, as covered in the media. These companies, listed on McGregor BFA's 2017 website, were subsequently suspended from the Johannesburg Stock Exchange (JSE) due to fraudulent activities. They are specifically noted for accounting irregularities, with detailed accounts of these allegations in Appendix 1. The companies include Beige Holdings Limited, Johannesburg Consolidated Investments (JCI) Limited, Macmed Healthcare Limited, Tigon Limited, and Steinhoff. These companies form the basis of the study's sample of fraudulent companies. For each company involved in fraud, a corresponding company from the same JSE sector, but not involved in fraud, was chosen for comparison. These sectors include Mining, Health and Pharmaceutical, and Financial. Tables 1 and 2 provide an overview of each company's sector, incorporation year, JSE listing year, and current listing status. It's important to note that the inclusion of non-fraud companies doesn't suggest an absence of accounting fraud risks or incidents; rather, it indicates no reported cases of such irregularities during the study's timeframe.

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**Table 1: Fraud Companies**

| Fraud Company | JSE Sector |
|---|---|
| Beige Holdings Limited | Health – Pharmaceuticals and cosmetics |
| Johannesburg Consolidated Investments (JCI) Limited | Basic resources – Mining |
| Macmed Healthcare Limited | Health – Pharmaceuticals and cosmetics |
| Tigon Limited<br>Steinhoff | Financial services – General financial<br>Retail- Fashion |

Source: McGregor BFA (2017)

**Table 2: Non-Fraud Companies**

| Non-Fraud Company | JSE Sector |
|---|---|
| African Rainbow Minerals Ltd | Basic resources – Mining |
| Aspen Pharmacare Holdings Ltd | Health – Pharmaceuticals and cosmetics |
| Medi-Clinic Corporation Ltd | Health – Pharmaceuticals and cosmetics |
| Anbeeco Investment Holdings<br>Edcon Group of companies | Financial services – General financial<br>Fashion and cosmetics. |

Source: McGregor BFA (2017)

**Table 3: A Comparison of Fraud Companies with Non-Fraud Companies**

Table 3 provides a compelling comparison between fraud and non-fraud firms, with a focus on their total assets and gross profit. In this comparison, each fraud firm is paired with a non-fraud firm, offering a clear juxtaposition of their financial standings. The total assets of fraud firms, such as Tigon, Beige, Macmed, JCI, and Steinhoff, range considerably from R179,109,000 to R3,978,561,000. This variance highlights the diverse scales at which these firms operate. In contrast, non-fraud firms like Anbeeco, Aspen, Mediclinic, African Rainbow, and Edcon, demonstrate significantly higher asset values, with the lowest at R1,276,450,000 and the highest reaching an impressive R13,589,510,000. This stark difference suggests that non-fraud firms might be larger, more established, or possess more robust asset management strategies compared to their fraud counterparts.

Gross profit figures further distinguish these two groups. Fraud firms show a mixed picture: Tigon and Beige report healthy profits, yet JCI and Steinhoff encounter substantial losses. These losses could be indicative of underlying financial issues or mismanagement often associated with fraudulent activities. On the other hand, non-fraud firms uniformly report positive gross profits, with figures ranging from Anbeeco's modest profit to Edcon's substantial earnings. This consistent profitability among non-fraud firms implies more stable and successful financial performance.

The data from Table 3 implies that larger firms, as indicated by total assets, tend to be non-fraudulent and more financially sound, characterized by their positive gross profits. In contrast, smaller firms, especially those with negative gross profits, are more likely to be involved in fraud. However, this pattern does not imply a direct cause-and-effect relationship but rather highlights potential trends and risk factors that might be associated with fraudulent activities. Negative gross profits and lower total assets in fraud firms could serve as warning signals for investors and regulatory bodies.

This table, while insightful, represents a limited number of firms and should be interpreted with caution. It's a snapshot that doesn't necessarily reflect broader industry trends or capture the myriad of factors that contribute to a firm's propensity for fraud, such as management practices, industry dynamics, economic conditions, and regulatory compliance. Therefore, while useful for drawing preliminary contrasts, these findings should be augmented with more comprehensive data and analysis for accurate conclusions.

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| | FRAUD FIRMS (R'000) | NO-FRAUD FIRMS (R'000) |
|---|---|---|
| | TIGON | ANBEECO |
| TOTAL ASSETS | 1,372,430 | 12,275 |
| GROSS PROFIT | 367,688 | -5,442 |
| | | |
| | BEIGE | ASPEN |
| TOTAL ASSETS | 179,109 | 1,535,666 |
| GROSS PROFIT | 93,680 | 953,722 |
| | | |
| | MACMED | MEDICLINIC |
| TOTAL ASSETS | 463,743 | 1,276,450 |
| GROSS PROFIT | 53,990 | 284,213 |
| | | |
| | JCI | AFRICAN RAINBOW |
| TOTAL ASSETS | 2,507,771 | 11,460,000 |
| GROSS PROFIT | -20,059 | 1,924,484 |
| | | |
| | STEINHOFF | EDCON |
| TOTAL ASSETS | 3,978,561 | 13,589,510 |
| GROSS PROFIT | -29,598 | 2,592,487 |

Source: McGregor BFA (2017)

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**Selection of Case Companies**

The case companies were selected from 1999 to 2017 from McGregor BFA McGregor BFA (Pty) Ltd. provides financial data feeds and analysis tools online. It affords data, such as JSE and international share prices; and company information, together with annual reports, financial statements, and more. The company additionally creates custom feeds to meet the needs of customers. Additionally, it offers data solutions to investment managers, auditors, corporations, and government institutions, as well as others throughout Africa and internationally.

**Table 4 shows the fraud companies and the year in which the fraud was finally exposed.**

Table 4 presents a succinct overview of notable corporate fraud cases, outlining the companies involved and the specific years when their fraudulent activities were uncovered. The table begins with Macmed, a company whose fraudulent conduct was exposed in 1999, marking the earliest case in this dataset. This is followed by Beige, with its fraud coming to light in 2000. A few years later, in 2005, JCI's fraudulent activities were disclosed, indicating a continuation of corporate malfeasance into the new millennium. Notably, the table shows an absence of data for Tigon, suggesting either an undisclosed year of fraud exposure or a gap in the recorded information. Finally, Steinhoff's case is the most recent, with its fraudulent activities being revealed in 2017. This chronological listing not only highlights the persistence of corporate fraud over the years but also suggests a need for continuous vigilance and improved regulatory measures in the corporate sector to prevent such misconduct. The variation in the years of exposure could reflect differing durations of fraudulent activities, the effectiveness of regulatory oversight, or the evolving nature of corporate fraud itself.

| Company | Year of Fraud |
|---|---|
| Macmed | 1999 |
| Beige | 2000 |
| JCI | 2005 |

| Tigon<br>Steinhoff | 2002<br>2017 |
|---|---|

*Adapted from* McGregor BFA (2017)

**Outside Directors**
The study investigated the number and percentage of outside directors for both fraud and non-fraud companies. Table 5 presents the number of outside directors for the two years preceding the year of fraud.

**Table 5 Number and Percentage of Outside Directors for Fraud Companies**

Table 5 provides a detailed look at the composition of the board of directors for several companies identified as engaging in fraudulent activities, specifically focusing on the presence and proportion of outside directors over two distinct years. The companies analyzed include Macmed, Beige, JCI, Tigon, and Steinhoff.

For each company, the table lists the total number of directors and the number of outside directors (directors not part of the company's executive team) for both Year 1 and Year 2, along with the calculated percentage of outside directors. For instance, Macmed had a total of 13 directors in Year 1, with 4 being outside directors (31%), and in Year 2, although the total board size reduced to 11, the number of outside directors increased to 5, raising the percentage to 45%. This pattern of increasing outside director representation is also visible in other companies, with Beige maintaining a consistent percentage of 57% across both years, and JCI showing a significant increase in the percentage of outside directors from 40% to 60%, despite a decrease in the total number of directors from 5 to 2.

The table also reveals variations in how different companies adjusted their board composition. For example, Tigon and Steinhoff showed different patterns in both the number of directors and the percentage of outside directors, reflecting diverse approaches to governance in response to their circumstances.

The mean percentages at the bottom of the table, 40% for Year 1 and 46% for Year 2, indicate an overall trend towards a higher proportion of outside directors in these companies, suggesting a possible shift towards greater external oversight or diversified perspectives in governance, especially in the context of companies associated with fraudulent activities. This data can be critical in understanding governance dynamics in troubled companies and the role that board composition might play in corporate oversight and ethical management.

| Company | Number of Directors | | Number of Outside Directors | | Percentage of Outside Directors | |
|---|---|---|---|---|---|---|
| | Year 1 | Year 2 | Year 1 | Year 2 | Year 1 | Year 2 |
| Macmed | 13 | 11 | 4 | 5 | 31% | 45% |
| Beige | 7 | 4 | 4 | 4 | 57% | 57% |
| JCI | 5 | 2 | 5 | 3 | 40% | 60% |
| Tigon<br>Steinhoff | 4<br>6 | 1<br>3 | 4<br>5 | 1<br>4 | 25%<br>45% | 25%<br>41% |
| Mean | | | | | 40% | 46% |

*Adapted from* McGregor BFA (2017)

**Table 6: Number and Percentage of Outside Directors for Non-Fraud Companies**

Table 6 presents insightful data on the composition of board directors in various non-fraud companies, focusing on the distinction between internal and outside (independent) directors across two consecutive years. In this analysis, five companies are considered: Aspen, Mediclinic, African Rainbow, Anbeeco, and Edcon. Starting with Aspen, we observe a significant reduction in the total number of directors from 11 in Year 1 to 6 in Year 2. Interestingly, the proportion of outside directors in Aspen rose from 36% to 50%, indicating a strategic shift towards a board with a higher ratio of independent oversight.

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Mediclinic showed a minor decrease in both the total number of directors (from 12 to 11) and the percentage of outside directors (from 58% to 55%), suggesting a relatively stable board composition.

African Rainbow displayed a similar trend to Aspen, with a decrease in total directors from 14 to 10, accompanied by a slight increase in the percentage of outside directors from 71% to 73%. This change implies a sustained or even strengthened commitment to independent governance. For Anbeeco, the data on the total number of directors is missing, yet the percentage of outside directors remained constant at 60% over the two years, indicating no change in their board's independent representation.

Edcon's scenario is slightly different, with a decrease in total directors from 15 to 13 and a marginal increase in outside director proportion from 67% to 69%. This shift, while not as pronounced as in Aspen or African Rainbow, still leans towards enhancing independent oversight. The mean percentage of outside directors across all these companies increased from 58% in Year 1 to 61% in Year 2. This trend across different companies underscores a general inclination towards bolstering the presence of outside directors on boards. Such a shift is often associated with a drive towards improved corporate governance, with outside directors providing critical independent perspectives and oversight, essential for maintaining corporate integrity and stakeholder trust.

| **Company** | **Number of Directors** | | **Number of Outside Directors** | | **Percentage of Outside Directors** | |
|---|---|---|---|---|---|---|
| | **Year 1** | **Year 2** | **Year 1** | **Year 2** | **Year 1** | **Year 2** |
| Aspen | 11 | 6 | 4 | 3 | 36% | 50% |
| Mediclinic | 12 | 11 | 7 | 6 | 58% | 55% |
| African Rainbow | 14 | 10 | 11 | 8 | 71% | 73% |
| Anbeeco<br>Edcon | 5<br>15 | 3<br>13 | 5<br>10 | 3<br>9 | 60%<br>67% | 60%<br>69% |
| Mean | | | | | 58% | 61% |

*Adapted from* McGregor BFA (2017)

**Length of time Listed on JSE**

Table 7 and Table 8 present the length of time the selected companies in this study were listed on the JSE prior to the final uncovering of fraud.

**Table 7 Number of Years Listed on JSE (Fraud Companies)**

Table 7 presents an interesting overview of companies listed on the Johannesburg Stock Exchange (JSE) that were later implicated in fraud. It specifically details the year of listing and the number of years these companies remained listed before their involvement in fraud came to light. The companies in question – Macmed, Beige, JCI, Tigon, and Steinhoff – were listed between 1995 and 1998. Macmed, listed in 1998, remained on the JSE for 12 years before fraud was uncovered, while Beige, with a much shorter listing period of 3 years since 1997, indicates a quicker transition to fraudulent activities. JCI and Tigon, listed in 1997 and an unspecified year respectively, had intermediate durations of 8 and 7 years. Steinhoff, listed in 1998, shows the longest duration of 19 years, which points towards a more prolonged period of operations before the emergence of fraud. The mean duration of these companies on the JSE before fraud was identified is 10 years, calculated by averaging the individual durations. This data, while insightful, is also limited in its scope. It focuses solely on companies involved in fraud, thereby providing a narrowed lens through which the issue is viewed. To gain a more comprehensive understanding, it would be beneficial to have a broader dataset that includes companies not involved in fraud for a comparative analysis. Such an expanded view would offer a clearer picture of the prevalence and patterns of fraudulent activities among JSE-listed companies, helping to identify whether longer listing durations correlate with a higher propensity for fraud or if other factors play more significant roles.

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| Company | Year of Listing | Number of Years Listed |
|---|---|---|
| Macmed | 1998 | 12 |
| Beige | 1997 | 3 |
| JCI | 1997 | 8 |
| Tigon<br>Steinhoff | 1995<br>1998 | 7<br>19 |
| Mean | | 10 |

*Adapted from* McGregor BFA (2017)

**Table 8 Number of Years Listed on JSE (Non-Fraud Companies)**

The data from Table 8 offers an insightful glimpse into the longevity of non-fraud companies listed on the Johannesburg Stock Exchange (JSE). It showcases a range of companies, from various sectors, and their respective durations on the exchange. Starting with Aspen, a relatively recent entrant to the JSE in 1990, it has maintained its presence for 9 years. In contrast, both Mediclinic and African Rainbow, with their inception on the exchange dating back to 1960, demonstrate a much longer tenure of 39 and 44 years respectively. This longevity is indicative of their sustained operations and possibly, steady growth. The most veteran among them, Edcon, stands out with a remarkable 70-year listing since 1948, reflecting its enduring legacy in the market. Anbeeco, however, lacks specific data regarding its year of listing. The mean listing duration of 35 years, calculated excluding Anbeeco due to its incomplete data, signifies a considerable average lifespan for these entities on the JSE. This average, underpinned by a mix of both newer and older establishments, suggests a dynamic yet stable environment in the JSE for non-fraud companies. Such a blend of tenures also implies a market that is welcoming to newcomers while also being supportive of long-established businesses, painting a picture of a robust and diverse financial ecosystem.

| Company | Year of Listing | Number of Years Listed |
|---|---|---|
| Aspen | 1990 | 9 |
| Mediclinic | 1960 | 39 |
| African Rainbow | 1960 | 44 |
| Anbeeco<br>Edcon | 1987<br>1948 | 12<br>70 |
| Mean | | 35 |

*Adapted from* McGregor BFA (2017)

**Stock Ownership by Management**

**Table 9: Percentage of Stock Ownership by Directors (Fraud Companies)**

| Company | Director Ownership | | |
|---|---|---|---|
| | **Year 1** | **Year 2** | **Percentage Change** |
| Macmed | 4.25% | 6.96% | -2.71% |
| Beige | 29.25% | 42.47% | -13.22% |
| JCI | 0.00% | 0.00% | 0.00% |
| Tigon<br>Steinhoff | 0.02%<br>0.00% | 0.02%<br>0.00% | 0.00%<br>0.00% |

*Adapted from* McGregor BFA (2017)

**Table 10: Percentage of Stock Ownership by Directors (Non-Fraud Companies)**

| Company | Director Ownership | | |
|---|---|---|---|
| | **Year** | **Year** | **Percentage** |

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| | 1 | 2 | Change |
|---|---|---|---|
| Aspen | 84.72% | 80.79% | 3.93% |
| Mediclinic | 0.30% | 0.30% | 0.00% |
| African Rainbow | 43.10% | 0.24% | 42.86% |
| Anbeeco | 69.96% | 69.96% | 0.00% |
| Edcon | 0.65% | 0.65% | 0.00% |

*Adapted from* McGregor BFA (2017)

From Table 9 and Table 10, it can be observed that the directors in these two companies, Macmed and Beige, reduced their shareholding one year prior to the years in which the companies were suspended from trading on the JSE. Directors of two non-fraud companies, African Rainbow and Aspen, on the other hand increased their holdings. Again, management ownership is relatively high for non-fraud companies than for the fraud companies. This is in line with Jensen and Meckling (1976) who argue that management stock ownership minimises agency problems because of the presence of a stronger motivation to raise the value of the firm's stock if management owns more stocks. The findings from this case study is in line with Agrawal and Cooper (2015) who reported that, relative to the control sample, there was weak evidence that top managers of firms that misstate the financial statements sell more stocks during the period of misstatement than during the pre-misstatement period. However, in some subsamples where there was great incentive for insiders to sell before the exposure of accounting misstatements, they reported strong evidence of substantial sale of stocks by top managers of restating firms during the misstated period suggesting that the desire of managers to sell their holdings at inflated prices provides evidence of intentional earnings manipulation and that insider trading is more prevalent in the market than reported in prior literature.

**CEO Tenure**

The ability of the CEO to control the board of directors is usually attributed to the conception that the CEO holds the strongest voice in determining the composition of the board of directors; regardless of the existence of a nominating committee (Mace, 1986; Patton & Baker, 1987; Vancil, 1987). Furthermore, Hermalin and Weisbach (1988) posit that an established CEO has more power than a new CEO. Table 11 and Table 12 present the CEO tenure of the selected companies for this study.

**Table 11: CEO Tenure of Fraud Companies**

| Company | CEO Tenure (Years) |
|---|---|
| Macmed | 13 |
| Beige | 2 |
| JCI | 8 |
| Tigon | 6 |
| Steinhoff | 3 |
| Mean | 6 |

**Table 12: CEO Tenure of Non-Fraud Companies**

| Company | CEO Tenure (Years) |
|---|---|
| Aspen | 9 |
| Mediclinic | 15 |
| African Rainbow | 3 |
| Anbeeco | 8 |
| Edcon | 7 |
| Mean | 8.75 |

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The information presented in Tables 11 and 12 offers an intriguing insight into the tenure patterns of CEOs in different types of companies. Notably, it reveals that the average tenure of CEOs in non-fraudulent companies is generally longer than that of CEOs in companies involved in fraudulent activities. This observation stands in stark contrast to the findings of Hermalin and Weisbach's 1988 study, suggesting a possible shift in corporate dynamics over time. One plausible explanation for this pattern could be that more established CEOs, benefiting from their extensive experience and accumulated authority, are better equipped to withstand pressures that might lead to financial statement fraud. These seasoned leaders may have developed a stronger resistance to engaging in unethical practices to meet the expectations of stakeholders or to enhance the company's short-term financial appearance. However, it is important to note that the difference in tenure between the CEOs of non-fraud and fraud companies, as observed in this study, is relatively minor. This minimal disparity indicates that while tenure might be a factor in the likelihood of fraudulent behavior, it is not the sole determinant. Other factors, such as corporate culture, governance structures, and external market pressures, might also play a significant role in influencing a CEO's decision-making processes and ethical standards.

**CEO Duality**

Table 13 and Table 14 present the CEO duality of the selected companies for this study. The tables show whether the CEO and the chairperson positions are held by the same person. Jensen (1993) argues that the CEO cannot perform the monitoring duties of chairperson except to work for his/her personal interests and suggests that for effective monitoring, both positions must be held by different persons.

**Table 13: CEO Duality of Fraud Companies**

| Company | CEO Duality |
|---|---|
| Macmed | YES |
| Beige | No |
| JCI | No |
| Tigon | No |
| Steinhoff | YES |

**Table 14: CEO Duality of Non-Fraud Companies**

| Company | CEO Duality |
|---|---|
| Aspen | Yes |
| Mediclinic | No |
| African Rainbow | No |
| Anbeeco | No |
| Edcon | No |

In the context of the analysis conducted, the data presented in Table 13 and Table 14 offers a significant insight into the corporate landscape. It becomes readily apparent that a noteworthy pattern emerges among the five selected companies, some of which have been flagged for fraudulent activities while others have maintained a reputation of integrity. The crux of this observation lies in the fact that, in a majority of cases, specifically three out of the five, the positions of CEO and chairman were held by distinct individuals. This divergence in leadership roles within these companies raises intriguing questions about the dynamics of corporate governance and the potential impact it may have on their respective financial practices and ethical standards. This finding prompts further investigation into the potential implications of this structural separation of power and its correlation with corporate behavior, adding depth to our understanding of these entities and their operational philosophies.

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## 4. DISCUSSION

### Prevalence and Impact of Financial Statement Fraud

This article delves into an extensive analysis of financial statement fraud, examining its impact in both the global arena and specifically within the South African context. The study highlights notorious global cases such as Enron and WorldCom, as well as significant South African instances including New Republic Bank and Beige Masterbond. These examples, referenced from works by (Habib et al., 2023; Maria Ulfa & Ermian Challen, 2020), demonstrate the pervasive nature of financial fraud across different regions. Beyond the immediate financial losses, these fraudulent practices have far-reaching consequences. They severely undermine investor confidence, detrimentally affect the morale of employees, and disrupt the overall market dynamics. The collapse of such entities leads not only to profound economic downturns but also instigates the implementation of regulatory reforms designed to thwart similar future incidents. The fallout from financial statement fraud is extensive, affecting various stakeholders. (Agur et al., 2020) Investors are often left with substantial financial losses, while employees grapple with the uncertainty of their job security. Consumers, losing faith in the integrity of the financial system, are left disillusioned. The broader economic landscape also feels the tremors of these fraudulent activities, as evidenced by the economic shocks following major corporate collapses. These wide-ranging impacts highlight the critical need for stronger and more effective mechanisms to identify and prevent such fraudulent activities. This call to action is essential for safeguarding the financial well-being of individuals and the stability of the global economy. (Mulyadi et al., 2022)

### Role of Auditing and Regulatory Measures

The phenomenon of audit failures in recent times has cast a significant shadow over the reliability of traditional auditing practices. Notably, the involvement of auditing firms in high-profile corporate scandals, such as Arthur Andersen's role in the Enron scandal, has been a major cause for concern. These incidents have revealed profound lapses in the ethical and professional standards that are expected in the auditing industry, as highlighted in research by (Habib et al., 2023) Such failures have not only undermined the credibility of the auditing profession but have also led to widespread distrust among investors and stakeholders. As a result, there has been a pressing need for a global reevaluation of how auditing is conducted. This reevaluation is focused on ensuring that auditors are not just technically proficient but also adept at detecting anomalies that could be indicative of financial fraud. The aim is to transform auditing into a more proactive and investigative process, rather than a mere compliance-based activity.

In response to the growing concerns over audit integrity, various countries have introduced stringent regulatory measures. For instance, the United States implemented the Sarbanes-Oxley Act, which was a landmark legislation designed to overhaul corporate governance and financial reporting practices. Similarly, in South Africa, the King Report was introduced as a framework to improve corporate governance. Both these regulations share a common goal: to enhance the transparency and reliability of financial reporting. (Peprah et al., 2019) By imposing stricter requirements for financial disclosures and introducing more rigorous oversight of corporate accounting practices, these regulatory efforts aim to restore and bolster investor confidence. The emphasis is on ensuring that corporations provide financial statements that are both accurate and transparent, thereby reducing the likelihood of future financial scandals. This shift towards enhanced regulatory oversight is a critical step in redefining the landscape of corporate governance and financial accountability, with the ultimate goal of safeguarding the interests of investors and the public at large.

### Corporate Governance and Fraud Patterns

Governance Structures and Fraud: In-Depth Insights and Trends The landscape of corporate fraud has been extensively studied, leading to revealing insights regarding the governance structures of companies and their susceptibility to fraudulent practices. This research delineates a clear pattern: companies that imbue their governance structures with certain key features tend to have a lower propensity

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for fraud. Specifically, firms that prioritize the appointment of independent board members, maintain CEOs with longer tenures, and clearly demarcate the roles of CEO and board chairman exhibit a notably reduced incidence of fraudulent activities. (Kossek et al., 2021a) These observations are not incidental but rather deeply rooted in the foundational principles of sound corporate governance. The emphasis on independence and accountability in the roles of corporate leadership is a cornerstone of these principles. It ensures that decision-making processes are not only transparent but also free from undue influence, thereby significantly mitigating the risk of unethical practices. (Nurbaiti & Elisabet, 2023)

The Broader Implications for Corporate Governance Strategies The implications of these findings are profound and multifaceted, particularly in the context of evolving corporate governance strategies. They underscore the necessity for firms to critically reassess and strengthen their governance structures as a means of mitigating the risks associated with fraudulent activities. To achieve this, there are several key strategies that firms can employ. (Shireesha, 2022) Firstly, increasing the proportion of independent directors on their boards can provide a level of unbiased oversight that is critical in identifying and preventing fraudulent practices. Secondly, ensuring CEO accountability is paramount. This involves not only scrutinizing their decisions and actions but also maintaining a balance of power within the corporate hierarchy. Lastly, separating the roles of CEO and board chairman is crucial. This separation is vital in preventing a concentration of power that can often lead to conflicts of interest and, subsequently, fraudulent activities. Collectively, these measures not only align with the principles of robust corporate governance but also act as vital safeguards, ensuring the ethical operation and long-term sustainability of corporations in a complex and ever-evolving business landscape. (Kossek et al., 2021b)

## 5. FUTURE IMPLICATIONS

The research article on accounting irregularities in South African firms, with global perspectives including cases like the Enron scandal, holds significant future implications. Primarily, it underscores the urgent need for strengthened regulatory oversight and corporate governance reforms. The findings, pointing to the effectiveness of models like the Beneish model in fraud detection, suggest a future focused on enhancing such tools for greater adaptability and sophistication. This could lead to more stringent enforcement against financial misrepresentation and a push for reforms in corporate governance, particularly advocating for independent directors and separation of CEO and chairman roles. Additionally, the study emphasizes the importance of continuous professional education in ethical conduct and fraud detection for accountants and auditors. It also highlights the impact of financial fraud on stakeholders, potentially leading to increased demands for transparency and accountability from corporations. This may further influence policy and legislative changes to protect investors and establish universal financial reporting standards. The reliance on data analysis tools in the study indicates a future where advanced technology, including AI, plays a crucial role in identifying financial irregularities. This technological advancement, coupled with a shift towards more ethical corporate practices, could reshape the landscape of financial transparency and business ethics. Lastly, the academic contributions of such research are invaluable, paving the way for new theoretical frameworks and methodologies to understand and prevent financial irregularities, shaping a more ethical and transparent future for global financial markets.

## 6. CONCLUSION

The study highlights the significance of transparency and accountability in finance and business, emphasizing the need for ethical conduct and oversight to prevent financial statement fraud. The study extensively discusses the role of professional organizations, governments, and academics in formulating guidelines and laws to maintain financial integrity, particularly spotlighting the Sarbanes-Oxley Act, the UK's Turnbull Guide, and South Africa's King Report. Methodologically, the research adopts a mixed-methods approach, integrating qualitative and quantitative analyses. It utilizes the Beneish model to assess the probability of earnings manipulation, comparing companies with known financial violations against those without such history. The results reveal patterns and risk factors associated with fraudulent activities, suggesting that smaller firms with negative gross profits are more prone to fraud. However, the study

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advises caution in generalizing these findings, as they represent a limited sample and don't capture broader industry trends. This research offers valuable insights into the patterns of financial misappropriation in the corporate landscape. It underscores the importance of robust governance, ethical management, and the critical role of external oversight in mitigating the risk of financial irregularities. The findings highlight the necessity for continuous vigilance, improved regulatory measures, and the integration of comprehensive frameworks for corporate governance to safeguard financial systems and uphold investor trust. The study serves as a reminder of the far-reaching impact of financial misconduct, advocating for a collective effort among professionals, regulatory bodies, and academics to foster a transparent and accountable financial environment.

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