

Article History:

Received: 04-06-2022 Accepted: 29-05-2022 Publication: 30-06-2022

Cite this article as:

Rehman, A. (2022).
Organizational Corruption
Prevention, Internal Audit, and
Sustainable Corporate
Governance: Evidence from
Omani Public Listed Companies.
International Journal of Social
Sciences and Economic Review,
4(2), 10-20.
doi.org/10.36923/ijsser.v4i2.159

© 2022 by author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License 4.0 International License.

Corresponding Author(s):

Ali Rehman

Internal Audit Department, A'Sharqiyah University, Ibra, Oman. Email: ccp9147@yahoo.com

Organizational Corruption Prevention, Internal Audit, and Sustainable Corporate Governance: Evidence from Omani Public Listed Companies

Ali Rehman¹

Abstract: This study aims to examine the impact of fraud risk assessment (FRA) and internal audit activity (IA) on sustainable corporate governance (SCG) in publicly listed companies in Oman, through the lenses of Fraud Triangle Theory, Institutional Theory, and Agency Theory. The study also investigates the mediating role of IA between FRA and SCG. A descriptive cross-sectional survey design was employed, targeting members of the board of directors, senior management, and internal audit departments. Data was collected using a web-based application and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings reveal that IA has a significant direct impact on SCG and also mediates the relationship between FRA and SCG. However, FRA alone does not show a significant direct effect on SCG. The study concludes that while FRA is essential, its effectiveness in achieving sustainable corporate governance is realized primarily through the activities of internal audit. This research has important implications for regulators and policymakers, suggesting the need for revised corporate governance codes that emphasize the critical role of internal audit in fraud prevention and sustainable governance. Additionally, it highlights the potential for further studies in other Gulf countries and within private companies to validate and extend these findings.

Keywords: Fraud risk assessment, internal audit activity, Sustainable Corporate governance, Oman

1. Introduction

Corporate governance was initially introduced to ensure shareholder satisfaction and enhance transparency in business operations (Nicolas Garcia, Belen Fernandez & Cuesta, 2016). It is typically implemented through codes or laws defined by regulatory bodies or similar authorities. In today's business environment, organizations cannot operate effectively unless they comply with corporate governance codes. However, despite the existence of these codes, regulators, and compliance authorities, organizations are still encountering fraud at an increasingly alarming rate (Rehman & Hashim, 2019a). According to the Association of Certified Fraud Examiners (ACFE), it is estimated that organizations lose 5% of their annual revenue to fraud each year, amounting to an average loss of USD 1.5 million per organization (Association of Certified Fraud Examiners, 2020).

To protect shareholders and shield organizations from fraud, there is a pressing need for innovation in fraud detection and corporate governance. One such innovation is the integration of Fraud Risk Assessment (FRA) as a compulsory control mechanism for achieving Sustainable Corporate Governance (SCG). The three foundational pillars of business sustainability and growth are SCG, FRA, and Internal Audit (IA) (Rehman, 2021). SCG, crucially, is only achievable in a fraud-free environment (Lombardi, Trequattrini, Cuozzo, & Cano-Rubio, 2019). FRA, functioning as a control, and IA, as an activity, are vital in eliminating and mitigating fraud (Mock, Srivastava & Wright, 2017; Yee, Sujan, James, & Leung, 2008; Vinita, Joe & Lee, 2008).

SCG is defined as a mechanism that fosters the development of a proactive Board of Directors (BOD), an efficient and effective Audit Committee (ARC), a productive Remuneration Committee (NRC), and a thoughtful Executive/Senior Management team (EM) (Crifo, Escrig-Olmedo & Mottis, 2019). EM is responsible for developing organizational policies, which are then reviewed and approved by the ARC and NRC before final approval by the BOD. Given that the BOD, ARC, NRC, and EM are the main pillars of corporate governance, these entities should strive to achieve the highest governance standards. The policies they enact should assist organizations in realizing SCG (International Federation of Accountants, 2016). Achieving shareholder satisfaction requires organizations to operate in a fraud-free environment. Fraud not only erodes shareholder confidence but also tarnishes the company's reputation and affects all related stakeholders (Enofe, Ekpulu, & Ajala, 2015). FRA is regarded as the cornerstone of corporate governance (Singleton & Singleton, 2010); however, many organizations overlook its importance and fail to implement it. A survey by Klynveld Peat Marwick Goerdeler (KPMG, a Big 4 audit firm) found that fraud losses

¹ Internal Audit Department, A'Sharqiyah University, Ibra, Oman. Email: ccp9147@yahoo.com

are increasing at a faster rate than FRA investment, with many organizations not conducting FRA at all (Klynveld Peat Marwick Goerdeler, 2019).

Internal audit (IA) is an activity that assists organizations in achieving their goals and objectives by evaluating controls and governance processes (Institute of Internal Auditors, 2020). Corporate governance codes typically require the embedding of IA into organizational operations, as IA serves as the sole independent internal assurance authority within an organization (Capital Market Authority, 2018). With its expertise and skills, IA contributes significantly to the implementation of controls, identification of system vulnerabilities, and the provision of meaningful recommendations (Eulerich, Kremin & Wood, 2019), ultimately leading to the attainment of SCG. Publicly listed companies in Oman have entrusted IA with additional authority and reporting responsibilities, thereby enhancing its objectivity and independence. While several studies have explored the role of IA in corporate governance, limited research exists that examines the relationship between IA and SCG, either positively or negatively.

In today's corporate environment, SCG is essential for business continuity and sustainability (Jarmai, Tharani & Nwafor, 2020). According to a survey by the World Bank, 66% of organizations acknowledge that SCG is vital for their operations; however, only 22% believe that their BOD is providing adequate oversight for SCG (World Business Council for Sustainable Development, 2020). Despite the availability of corporate governance codes, these codes often fail to specify the importance of SCG. Furthermore, the achievement of SCG is not explicitly incorporated into these codes, including those developed for Oman (Capital Market Authority, 2018).

Regulatory and market failures contribute to the non-implementation of SCG. Commercial laws and regulations require the BOD to act in the best interests of the company as a whole (Grove & Clouse, 2017); however, the BOD and EM often prioritize short-term profitability to satisfy stockholders. Additionally, the BOD and EM are compensated based on short-term financial performance rather than long-term growth (Lombardi, et al., 2019). The root cause of these market failures is likely a lack of robust corporate governance (European Commission, 2020), which presents significant obstacles to achieving SCG.

Corporate governance codes in Oman do not provide detailed guidelines on the necessary elements for achieving SCG. Although revised codes were issued in 2016, they fail to address the conditions required for business continuity, sustainability, and the prevention of fraud and fraud-related activities (Rehman & Hashim, 2019a). Moreover, corporate governance in Oman is less effective compared to more developed countries (Qurashi, 2017).

To ensure effective corporate governance, external auditors are required to provide opinions to shareholders. However, these opinions are often more concerned with protecting the auditors' reputations than providing assurance to shareholders. Recently, several audit firms have been fined for failing to perform their assurance work correctly, with their processes and controls proving inadequate in preventing auditing failures (Bramwell, 2020; Bramwell, 2018; Observer, 2019). In Oman, it is common practice for external auditors to issue opinions on corporate governance by stating that they did not conduct procedures in accordance with International Standards of Auditing (ISA) or International Standards on Review Engagement (ISRE) (Klynveld Peat Marwick Goerdeler, 2020). Such audit opinions cannot provide shareholders with the satisfaction or assurance that SCG has been achieved (Garrow et al., 2019).

This study identifies fraud risk assessment (FRA) as the independent variable, internal audit activity (IA) as both an independent and mediating variable, and sustainable corporate governance (SCG) as the dependent variable. Applying the fraud triangle theory, FRA is considered an integral component of the governance management system, playing a critical role in fraud elimination and SCG achievement. This study aims to contribute to the existing body of knowledge by demonstrating how FRA impacts SCG, with IA serving as a mediator in Omani publicly traded companies. To the best of the researchers' knowledge, no prior study has demonstrated the impact of FRA and IA on sustainable corporate governance. Previous studies have only verified one essential element for SCG, whereas this study identifies four critical components. The findings of this study could assist professional bodies, regulators, and organizations in revising corporate governance codes and organizational policies to incorporate SCG conditions and ensure that FRA is a core component of governance management control.

2. Literature Review

This section explores the relevant literature on Fraud Risk Assessment (FRA), Internal Audit (IA), and Sustainable Corporate Governance (SCG), with a focus on publicly listed companies in Oman. The discussion includes an analysis of these three variables alongside the associated theories.

2.1. Fraud Risk Assessment

Risk assessment focuses on implementing appropriate risk responses to maximize sustainable value for an organization (Florea & Florea, 2016), ultimately contributing to SCG. FRA enhances the understanding of potential risk factors that may impact organizational performance, increasing the likelihood of success while reducing the probability of failure (Gullkvist & Jokipii, 2015; Mohd-Sanusi, Rameli, Omar & Ozawa, 2015).

To meet compliance requirements, regulations, and shareholder expectations, governance and organizational management must incorporate enterprise risk assessment, including FRA (Julien & Richards, 2008). Despite recent

attention to FRA in terms of standards and definitions, it is still not well understood by Executive Management (EM) and is often not implemented in many organizations.

Fraud remains a significant barrier to SCG. In today's business environment, nearly all organizations are susceptible to fraud, including those in Oman. Globally, organizations lose approximately 5% of their revenue to fraud each year, with a median loss of USD 125,000 per case (Association of Certified Fraud Examiners, 2020). It's important to note that fraud is an intentional act (Varma & Khan, 2016); non-intentional acts are considered errors or mistakes. While it is impossible to eliminate all instances of fraud in every organization (Karanja, 2018), implementing FRA can maximize the likelihood of timely fraud detection and prevention (Cotton, Johnigan & Givarz, 2016). FRA helps organizations control all three aspects of the Fraud Triangle theory—opportunities, pressure, and rationalization (Gullkvist & Jokipii, 2015).

FRA should be conducted continuously to identify potential risks and events that need to be evaluated (Mansour, Ahmi & Popoola, 2020). This process offers guidance for IA to verify fraud control measures and their implementation. FRA supports SCG by informing governance management and national strategies, which may be impacted by fraud (Vona, 2011). However, IA's skills and knowledge are essential to performing these support services effectively (Morang & Sobel, 2017).

2.2. Internal Audit

Internal audit (IA) provides objective assurance to stakeholders regarding the effectiveness of organizational operations and governance (Florea & Florea, 2016). IA is a critical component of any successful organization (Capital Market Authority, 2018) and contributes to achieving strategic goals (Cioban, 2016). IA is governed by the framework established by the Institute of Internal Auditors.

IA's three core functions are to provide objectivity, independence, and assistance in improving governance processes and risk management. Auditor independence is crucial for IA to remain objective, as it enhances IA's operations, reduces the influence of EM (MacRae & Gils, 2010), and improves governance and risk services, thereby aiding in the achievement of SCG.

In today's corporate environment, governance management expects more from IA, necessitating a transition from traditional auditing practices to more agile approaches (Jr, 2015). IA agility can enhance efficiency, generate value-driven insights, and improve risk management. IA can assist FRA by checking policy compliance, identifying uncovered risks, and implementing the Fraud Triangle theory by embedding opportunities, pressure, and rationalization into audit programs and tasks (Said, Alam, Ramli & Rafidi, 2017).

IA is a crucial activity for corporate performance, as it enhances the quality of financial information and promotes transparency in financial statements (MacRae & Gils, 2010). Research by Drogalas et al. (2016) found that IA has a positive association with corporate governance and improves the quality of the Audit and Risk Committee (ARC), a key component of SCG. Given IA's ability to enhance the quality of governance, it can positively impact SCG.

2.3. Sustainable Corporate Governance

Sustainable Corporate Governance (SCG) is essential for both organizations and society. SCG can increase shareholders' trust and confidence in an organization's corporate leaders (Choi et al., 2020). According to corporate governance codes, corporate leaders include the ARC, NRC, EM, and BOD. Shareholders and society are protected from fraud by regulations and laws, with measures in place to prevent future fraud. Recent corporate scandals, such as the 1 MBD fraud, NMC Health Care fraud, and the downfall of the Abraaj group (Burroughs & Khan, 2019; Parasie, 2020; Sharif, 2019), have raised doubts about corporate accountability and social responsibility. The only solution to mitigate fraud and satisfy shareholders in the current corporate environment is through SCG (Grove & Clouse, 2017).

The European Union (EU) places significant importance on establishing and implementing SCG. In its Inception Impact Assessment report, the EU states that "Sustainability should be further embedded into the corporate governance framework, as many companies still focus too much on short-term financial performance compared to their long-term development and sustainability aspects" (Commission, 2020). The principles of SCG, as summarized from the EU Inception Impact Assessment report, include:

a. Aligning the long-term interests of EM, shareholders, stakeholders, and society as a whole. b. Integrating stakeholder interests, sustainability risks, dependencies, opportunities, and adverse impacts into strategies, decisions, and oversight. c. Creating legal certainty, enabling organizations to identify, assess, and mitigate adverse impacts. d. Developing corporate governance arrangements regarding directors' remuneration and corporate bonus schemes. e. Empowering corporate directors to integrate broader interests into decisions and enhancing existing corporate governance mechanisms. f. Implementing the Non-Financial Reporting Directive to assist organizations in disclosing information about their risks and impacts. g. Implementing SCG strategies through proper risk management and impact mitigation procedures.

SCG enables organizations to better manage social change, environmental challenges, and sudden exogenous shocks that could threaten their long-term survival. The major stakeholders (BOD, ARC, NRC, and EM) play a crucial role in the development and implementation of SCG. The following is an overview of these four constituents:

2.3.1. Board of Directors

The Board of Directors (BOD) are the leaders of an organization responsible for monitoring the organization's business and controlling its operations. The BOD ensures that the organization's success aligns with long-term objectives and that these objectives are achieved. The BOD also plays a key role in scrutinizing and ensuring corporate governance. In addition to advocating for organizational sustainability and substantial commitment, the BOD is expected to integrate sustainability into the organization and its culture (Salvioni, Gennari, & Bosetti, 2016).

2.3.2. Audit And Risk Committee

The Audit and Risk Committee (ARC) is a mandatory feature of corporate governance, with members selected from the BOD. Oman's new regulations require ARC members to be independent, with IA reporting directly to the ARC (Capital Market Authority, 2018). ARC's success is closely tied to its oversight responsibilities and relationships with other SCG constituents, including the BOD, NRC, EM, and external auditors. The NRC is responsible for the EM's bonus, remuneration, and other compensations. The NRC plays a crucial role in resolving agency conflicts and providing satisfaction to shareholders (Dell'Atti, Intonti, & Iannuzzi, 2013; Acharya & Volpin, 2010). The NRC helps firms achieve higher performance levels and reduce failure rates.

2.3.3. Executive Management

Executive Management (EM) plays a vital role in corporate governance by implementing the goals, guidelines, and policies established by the BOD (Capital Market Authority, 2018). EM is responsible for monitoring, implementing, and developing corporate strategies aimed at achieving sustainable organizational goals. EM is composed of experts responsible for the organization's performance and the achievement of its goals, mission, and vision (Carcello, 2009).

2.4. Corporate Governance In Oman

Founded in 2002, Oman's corporate governance codes underwent a second revision in 2016 (Capital Market Authority, 2018). More recent amendments aim to enhance control and transparency in organizational performance. However, these codes do not include sustainability clauses, focusing instead on compliance with specific procedures rather than policy recommendations (Baatwah et al., 2015). The Sultanate of Oman has developed sustainability goals for 2030, including mandatory components such as the Centre for Governance and Sustainability (Omanuna, 2015). However, corporate governance rules in Oman do not include sustainability clauses, and there is no mechanism to identify sustainability in organizational governance. As of August 2020, the Muscat Stock Market (MSM) had 115 companies listed, divided into three categories: financial, industrial, and services. MSM requires organizations to comply with corporate governance codes and submit material information to its website.

2.5. Underlying Theories

This study is underpinned by the Fraud Triangle theory, Agency theory, and Institutional theory, which are explained below:

2.5.1. Fraud Triangle Theory

Fraud is a major barrier to achieving SCG, and the Fraud Triangle theory (FTT) provides insight into why individuals commit fraud (Torpey, Walden & Sherrod, 2011). FTT defines three dimensions necessary for fraud to occur, as presented in Table 1.

Table 1: Fraud Triangle Dimensions

Dimension	Description
Pressure	Fraudsters' personal motivations or incentives.
Rationalization	Fraud is committed with an intention that the fraudster believes to be his/
	her right and is also in the best interest of the society.
Opportunity	The fraudster should be capable of committing fraud, i.e., being able to
· ·	govern the system or bypass internal controls.

Source: Association of Certified Fraud Examiners (2018)

FRA can assess the pressure and its potential consequences on an organization. IA can identify fraudsters through profiling or observation and mitigate the consequences of fraud. FRA develops controls, assesses risk levels, and considers their impact on the organization. Proper implementation of FRA will reveal all areas where fraud can occur, along with its severity (Abdullahi & Mansor, 2015). Opportunities arise when internal controls are weak, but with IA's assistance and FRA reinforcement, these lapses can be addressed.

2.5.2. Agency Theory

Agency theory explains the process by which shareholders entrust certain responsibilities to experts to achieve organizational success and resolve conflicts of interest (Afza & Nazir, 2014). Corporate governance is implemented by agents such as EM, IA, the BOD, and related committees (Baatwah et al., 2015), leading to the achievement of SCG. Agency theory posits that the ultimate responsibility for corporate governance rests with the agents hired by the principals. Organizational and governance management must ensure transparent results and

safeguard shareholder interests, which can only be achieved through SCG and the utilization of IA. Additionally, IA can help resolve and mitigate agency conflicts and agency costs.

2.5.3. Institutional Theory

Institutional theory posits that organizations must conform to the demands of their institutional environment (Voet, 2020). Institutional environments shape organizations through coercive and normative mechanisms. Given that fraud is a significant barrier to SCG, institutions have created pressure to develop controls such as FRA and establish assurance functions like IA. The institutional theory also provides standards for corporate behavior (Scott, 1987) and outlines attitudes toward environmental control and control efforts. Managerial accountability, as defined by institutional theory, is evaluated based on institutional effects, considering the process by which rules, guidelines, and policies are developed (Aguilera, 2005; Puffer & McCarthy, 2015). Institutional theory informs governance management's role in preventing corporate corruption, and directing efforts toward achieving SCG and shareholder satisfaction (Lombardi et al., 2019).

3. Research Methodology

This study investigates the relationship and impact of Fraud Risk Assessment (FRA) and Internal Audit (IA) on Sustainable Corporate Governance (SCG), with IA serving as a mediator. A quantitative cross-sectional survey design was employed to analyze publicly listed companies. The survey questions were developed based on previous studies, with questions adapted to fit the specific context of this research.

The survey targeted individuals who could respond on behalf of their organizations, such as members of the Board of Directors (BOD) and related committees, as well as senior and executive management, including CEOs, CFOs, COOs, and heads of internal audit departments. The survey utilized a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), along with multiple-choice questions requiring 'yes' or 'no' responses. Separate sections were dedicated to SCG, FRA, and IA, providing definitions and outlining the purpose of the research.

The sample size was determined using G*Power 3, which suggested a minimum of 74 organizations with an effect size of 0.15. To achieve a power of 0.95 and a significance level of 0.05, 115 companies were contacted to participate in the study.

Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM). The dataset was derived from responses to 27 survey questions, three of which collected demographic information. The survey was administered through an internet-based platform, with links distributed via email, LinkedIn, and WhatsApp. The measurement model was evaluated to ensure the study met the criteria for further structural model assessment, as recommended by Ramayah et al. (2016). Table 2 provides the acceptable values for the measurement model.

Table 2: Acceptable Values for Model Evaluation- Measurement Model Analysis

Measurement/ Assessment	Index Utilized SEM		Tolerable Values
Ensure validity for internal consistency	Composite (CR).	reliability	CR is greater than or equal to 0.70.
Factor loading/ Indicator reliability	Indicator Loading		Outer loadings are greater than or equal to 0.5.
Ensure validity of the convergent dimension	Average Extracted (AVE)	Variance	AVE is greater than or equal to 0.5.
Ensure validity of the discriminant dimension	HTMT Criterion		HTMT should be less than 0.85.

Sources: Henseler, Ringle and Sarstedt (2015) and Ramayah, Cheah, Chuah, Ting, and Mumtaz (2016).

Subsequent to the measurement model assessment, the next step is to assess the structural model in PLS-SEM. Acceptable values of assessment model measurement are presented in Table 3.

 Table 3: Tolerable
 Values for Model Evaluation- Structural Model Analysis.

Assessment	Name of Index	Acceptable Values
Collinearity	Variance inflators factor	VIF < 5
Path Coefficient"	Path Coefficient	t value>2.33 and p-value <0.05
R-square"	Coefficient of determination	0.26- Substantial, 0.13- Moderate and 0.02- Weak.
f-square	Effect size	Large 0.16-0.35, Medium 0.03-0.15 and Small 0.02

Sources: García-Carbonell, Martín-Alcázar and Sánchez-Gardey (2015) and Hair, Hult and Ringle (2017)

Testing of the path relationship on the research model and the rules described in Tables 2 and 3 are mandatory in order to determine whether the relationship is statistically significant and also confirm the framework of the research study (Hair et al., 2017).

4. Result

In this study, FRA and SCG are evaluated along with IA as a mediator. A questionnaire was distributed to all 115 companies for this study, and those who were capable of responding were selected to participate as respondents. Compared to the suggested sample size of 74 by G*Power, the responses were received from 80 companies, which represents 70% of the overall organizations and goes beyond the sample size. A web-based tool is used to collect data, which is then analyzed utilizing PLS-SEM.

4.1. Demographic Profile Of Respondents

According to the survey, most respondents are male, come from the industrial sector, and are in executive/senior management roles. An excellent mix of responses was received, and the demographic breakdown is presented in Table 4.

Table 4: Demographic Profile

Question	Response	Percentage	
Gender	Male	96%	
	Female	4%	
Sector	Financial	29%	
	Industrial	43%	
	Services	28%	
Position in organization	Board of Directors	21%	
	Audit and Risk Committee member	16%	
	Nomination and Remuneration Committee member	4%	
	Executive/ Senior Management	31%	
	Chief/ Head of Internal Audit/ Risk Officer	28%	

Sources: Calculate by the author

4.2. Assessment Of Measurement Model

Measurement model assessment is performed as per the tolerable values defined in Table 2 and are presented in Table 5 and Figure 1.

Table 5: Measurement Model Assessment

	Indicator		
Indicators	Loading Range	Composite Reliability	Average Variance Extracted
FRA1 to 5	0.6 to 0.83	0.829	0.501
IA1to 6	0.675 to 0.867	0.917	0.651
SCG1 to 13	0.591 to 0.769	0.914	0.500

Sources: Calculate by the author

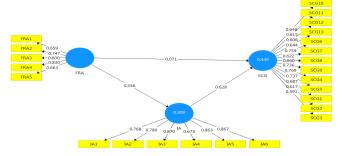


Figure 1: Value of Outer-loading and R^2

It appears that all the parameters are following the measurement model. Indicator reliability is above 0.5 for all indicators. As a result, the CR and AVE for FRA are 0.829 and 0.501, respectively, for IA, they are 0.917 and 0.651, and for SCG, they are 0.914 and 0.5. In Table 6, the HTMT values are below 0.85, which is within the threshold, demonstrating its discriminant validity.

Table 6: Heterotrait-monotrait (HTMT) Ratio

Variable	FRA	IA	SCG	
FRA				
IA		0.548		
SCG	(0.371	0.651	

Sources: Calculate by the author

4.3. Assessment Of Structural Model

After the measurement model has been assessed, the structural model can be evaluated according to the rules in Table 3. The results are shown in Figure 1 and Table 7. VIF values are below 5, indicating that there is no issue of collinearity. R^2 values are above 0.26 and are considered as strong. Effect size values of the R^2 are small for FRA R^2 SCG; however, R^2 for FRA R^2 IA and IA R^2 SCG are large as values are above 0.35.

4.4. Significance Of The Direct Effect

The researcher used PLS-SEM for bootstrapping 80 samples with 5000 sub-samples in order to assess the significance of the direct effect. The path coefficient is used to determine the significance level of direct effects. In Figure 2 and Table 7, we display the significance of direct effect—path coefficients.

Table 7: Significance of Direct Effect - Path Coefficient

		Standard	T	P			
Variable Path	Beta	Deviation	Statistics	values	\mathbb{R}^2	\mathbf{f}^2	Decision
FRA → IA	0.556	0.084	6.634	0.00	0.309	0.447	Supported
FRA → SCG	0.071	0.107	0.661	0.254		0.006	Not Supported
IA → SCG	0.628	0.103	6.113	0.00	0.449	0.495	Supported

Sources: Calculate by the author

The beta value for all the relationships is positive, showing a direct relationship. Nevertheless, the relationship between FRA and SCG cannot be regarded as significant, as the t-value is lower than 2.33 and the p-value is higher than 0.05. Furthermore, the effect size of 0.006 suggests a relationship is not significant. A significant relationship exists between FRA and IA, as t values are greater than 2.33 and p values are less than 0.05.

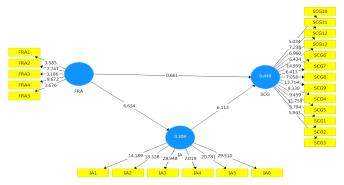


Figure 2: Direct Effect - Path Coefficient and T-values

4.5. Assessment Of Mediating Variable

Bootstrapping is performed with a two-tail test with 5000 sub-samples and a significance level of 0.05 (Hair et al., 2017; Ramayah et al., 2016). Mediation occurs when the indirect relationship between independent and dependent variables is statistically significant. Table 8 demonstrates the indirect significance:

 Table 8: Testing on Mediation

		Standard			Decision Supported
Relation	Beta	Deviation	T Statistics	P values	
FRA→ IA→SCG	0.349	0.079	4.395**	0.00	Yes

Source: Calculated by the author

It is evident from Table 7 that FRA does not have a significant impact on SCG; however, Table 8 defines that IA mediates the relationship between FRA and CGM as the T-value is greater than 2.33 and the p-value is lower than 0.05. IA, as an activity and part of Agency theory, explains the relationship between control, which is FRA and system, which is SCG.

5. Discussion

This study contributes to the existing body of knowledge by providing a comprehensive framework for understanding the role of Sustainable Corporate Governance (SCG) in mitigating fraud. The findings suggest that Fraud Risk Assessment (FRA) alone does not significantly influence SCG, as controls can be altered or overridden by Executive Management (EM). However, when supported by Internal Audit (IA), fraud can be effectively controlled, leading to the achievement of SCG.

Previous studies typically focused on the impact of a single factor or constituent of SCG, often examining its relationship with either control or assurance activities in isolation. This study, however, simultaneously examined all four constituents of SCG and assessed the combined impact of FRA and IA. The findings align with those of Boros and Fogarassy (2019) and Drogalas, Arampatzis, and Anagnostopoulou (2016), who found that risk controls (FRA) have a positive relationship with risk-mitigating activities (IA) and that IA a strong positive association with corporate governance.

FRA is a policy that evolves over time, and fraud typically occurs when these policies are not adhered to. IA plays a crucial role in verifying compliance with these policies, which explains the significant direct relationship between FRA and IA. Additionally, in accordance with the Fraud Triangle theory, internal activities like IA are essential for monitoring pressure, incentives, and motives within an organization. This finding is consistent with Boros and Fogarassy's (2019) assertion that risk controls (FRA) are positively associated with risk mitigation activities (IA).

IA, as an integral part of governance codes, significantly contributes to the achievement of SCG. It serves as the agent of agency theory, providing shareholders with the security and satisfaction they need. By executing tasks directly related to organizational strategies, IA plays a crucial role in achieving SCG. These findings are consistent with those of Drogalas et al. (2016), who identified a strong positive relationship between IA and corporate governance.

While FRA serves as a control mechanism, it is susceptible to being overridden by management, and controls themselves are subject to change over time. Institutional theory posits that rules, regulations, and controls must be updated to meet organizational needs. However, if FRA controls are not adequately amended or updated, the relationship between FRA and SCG may be direct but insignificant. The mediation results of this study align with the findings of Mohd-Sanusi, Rameli, Omar, and Ozawa (2015), who found that fraud control programs do not significantly impact corporate governance due to the constant evolution of the regulatory environment, the failure to update policies, and the possibility of management overriding controls.

6. Limitations, And Future Research of The Study

This study is focused solely on the Sultanate of Oman, which limits the generalizability of the findings to other regions. Future research could extend this study to other Gulf countries to explore whether the relationships observed here hold true across different cultural and regulatory environments. Another limitation is the focus on publicly traded companies; expanding future research to include private companies could provide a more comprehensive understanding of the corporate governance landscape. Additionally, this study gathered responses primarily from governance management. Future research could benefit from incorporating perspectives from organizational management, offering a more holistic view of how different levels of management perceive and influence Sustainable Corporate Governance (SCG).

7. Conclusion

This study makes significant contributions to the understanding and implementation of sustainable corporate governance (SCG), providing practical applications not only for companies in Oman but also globally. SCG compliance is increasingly recognized as a requirement for publicly traded companies and is becoming an international standard. The conceptual framework developed in this study is grounded in three major theories: Agency Theory, Fraud Triangle Theory, and Institutional Theory. Agency Theory supports the cause-and-effect relationship between Internal Audit (IA) and SCG, while Fraud Triangle Theory underpins the influence of Fraud Risk Assessment (FRA) on SCG. Institutional Theory explains SCG as being influenced by multiple factors, suggesting that it can be achieved through the combined efforts of FRA and IA.

This study also contributes to a better understanding of the role of IA within the context of SCG. The findings and conclusions of this study offer companies valuable insights that can guide the updating of corporate governance codes to include SCG principles. Additionally, this study aids organizations in identifying and addressing gaps in both activities and strategies related to sustainability.

To achieve total sustainability, all aspects of sustainability goals should be integrated into an organization's corporate governance framework. Controls provided by FRA, when monitored by IA, play a critical role in preventing fraud by identifying potential threats, implementing controls, and developing mitigating policies. Given the high-risk nature of fraud, it can only be effectively mitigated and regulated through the combined efforts of FRA and IA. Ultimately, SCG not only helps organizations achieve sustainable operations but also enables businesses to reach their full potential, providing benefits not only to their shareholders but also to society as a whole.

Acknowledgement Statement: The authors would like to thank all participants and the reviewers for providing comments in helping this manuscript to completion.

Conflicts of interest: The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Funding statements: This research has not received any funding.

Data availability statement: Data is available at request. Please contact the corresponding author for any additional information on data access or usage.

Disclaimer: The views and opinions expressed in this article are those of the author(s) and contributor(s) and do not necessarily reflect IJSSER's or editors' official policy or position. All liability for harm done to individuals or property as a result.

References

- Abdel-Meguid, A., Samaha, K., & Dahawy, K. (2014). Preliminary evidence on the relationship between corporate governance attributes and audit committee functionality in Egypt: Beyond checking the box. *Corporate Governance*, 14(2), 197-210. https://doi.org/10.1108/CG-01-2011-0004
- Abdullahi, R., & Mansor, N. (2015). Forensic accounting and fraud risk factors: The influence of fraud diamond theory. *European Journal of Business and Management*, 7(28), 57-63.
- American Institute of Certified Public Accountants (AICPA). (2017). *Practice aid: Audit and accounting manual*. New York: American Institute of Certified Public Accountants.
- International Federation of Accountants (IFAC). (2016). *International standard on auditing 260 (revised) communication with those charged with governance*. Effective for audits of financial statements for periods ending on or after December 15, 2016. Available at: https://www.irba.co.za/upload/ISA-260-Revised.pdf [Accessed September 13, 2020].
- Acharya, V. V., & Volpin, F. P. (2010). Corporate governance externalities. *Review of Finance*, 14(1), 1-33. https://doi.org/10.1093/rof/rfp002
- Adrian, N. K., Lawrence, A., & Cristal Lee, A. S. (2009). Forensic accounting: Public acceptance towards occurrence of fraud detection. *International Journal of Business Management*, 4(11), 145-149. https://doi.org/10.5539/IJBM.V4N11P145
- Afza, T., & Nazir, M. S. (2014). Theoretical perspective of corporate governance: A review. *European Journal of Scientific Research*, 119(2), 255-264.
- Aguilera, R. V. (2005). Corporate governance and director accountability: An institutional comparative perspective. *British Journal of Management*, 16(1), 39-53. https://doi.org/10.1111/j.1467-8551.2005.00446.x
- Appiah, O. K., & Chizema, A. (2015). Remuneration committee and corporate failure. *Corporate Governance*, 15(5), 623-640. https://doi.org/10.1108/CG-11-2014-0129
- Institute of Internal Auditors (IIA). (2020). *Definition of internal auditing*. Available at: https://na.theiia.org/standards-guidance/mandatory-guidance/Pages/Definition-of-Internal-Auditing.aspx [Accessed September 13, 2020].
- Capital Market Authority (CMA). (2018). The Capital Markets General Authority Resolution No. 10/2018. Muscat: Capital Market Authority.
- Baatwah, S. R., Salleh, Z., & Ahmad, N. (2015). Corporate governance mechanisms and audit report timeliness: Empirical evidence from Oman. *International Journal of Accounting, Auditing and Performance Evaluation*, 11(3/4), 312-337. https://doi.org/10.1504/IJAAPE.2015.071580
- Boros, A., & Fogarassy, C. (2019). Relationship between corporate sustainability and compliance with state-owned enterprises in Central Europe: A case study from Hungary. *Sustainability*, 11(20), 5653. https://doi.org/10.3390/su11205653
- Bramwell, J. (2018). U.K. Watchdog blasts PwC for 'Incomplete, inaccurate, and misleading' audit of BHS. Retrieved from https://www.goingconcern.com/u-k-watchdog-blasts-pwc-incomplete-misleading-bhs-audit/ [Accessed September 22, 2020].
- Bramwell, J. (2020). Congrats to Deloitte U.K. for getting the largest fine ever handed out by the Financial Reporting Council. Retrieved from https://www-goingconcern-com.cdn.ampproject.org/c/s/www.goingconcern.com/congrats-to-deloitte-u-k-for-getting-the-largest-fine-ever-handed-out-by-the-financial-reporting-council/amp [Accessed September 22, 2020].
- Burroughs, C., & Khan, Y. (2019). The bizarre story of 1MDB, the Goldman Sachs-backed Malaysian fund that turned into one of the biggest scandals in financial history. Retrieved from https://www.businessinsider.com/1mdb-timeline-the-goldman-sachs-backed-malaysian-wealth-fund-2018-12 [Accessed October 2, 2020].
- Carcello, J. V. (2009). Governance and the common good. *The Accounting Review*, 84(3), 869-891. https://doi.org/10.2308/accr.2009.84.3.869
- Choi, D., Choi, P. M. S., Choi, J. H., & Chung, C. Y. (2020). Does sustainable corporate governance enhance accounting practice? Evidence from the Korean market. *Sustainability*, 12(7), 2585. https://doi.org/10.3390/su12072585
- Cioban, A. (2016). The influence of the corporate governance mechanisms and audit fees on the financial performance measured with ROA. *Annals of the Constantin Brâncusi University of Târgu Jiu, Economy Series*, 1(5), 20-31.
- European Commission (EC). (2020). Sustainable corporate governance: Proposal for legislation fostering more sustainable corporate governance in companies. Available at: https://op.europa.eu/en/publication-detail/-/publication/3b8b6eaf-d288-11ea-adf7-01aa75ed71a1/language-fr [Accessed October 2, 2020].
- Cotton, D. L., Johnigan, S., & Givarz, L. (2016). Fraud risk management Executive summary. LA: COSO/ACFE. Crifo, P., Escrig-Olmedo, E., & Mottis, N. (2019). Corporate governance as a key driver of corporate sustainability in France: The role of board members and investor relations. Journal of Business Ethics, 159(4), 1127-1149. https://doi.org/10.1007/s10551-018-3866-6
- DellAtti, A., Intonti, M., & Iannuzzi, P. A. (2013). The effectiveness of remuneration committees in European banks: Regulation and best practices. *Journal of Financial Regulation and Compliance*, 21(4), 373-396. https://doi.org/10.1108/JFRC-11-2012-0046

- World Business Council for Sustainable Development (WBCSD). (2020). The state of corporate governance in the era of sustainability risks and opportunities. London: World Business Council for Sustainable Development.
- Drogalas, G., Arampatzis, K., & Anagnostopoulou, E. (2016). The relationship between corporate governance, internal audit and audit committee: Empirical evidence from Greece. *Corporate Ownership & Control*, 14(1), 569-577. https://doi.org/10.22495/cocv14i1c4art3
- Enofe, A., Ekpulu, G., & Ajala, T. O. (2015). Forensic accounting and corporate crime mitigation. *European Scientific Journal*, 11(7), 167-185.
- Eulerich, M., Kremin, J., & Wood, D. A. (2019). Factors that influence the perceived use of the internal audit function's work by executive management and audit committee. *Advances in Accounting*, 45, 100410. https://doi.org/10.1016/j.adiac.2019.01.001
- Association of Certified Fraud Examiners (ACFE). (2020). Report to the nations: 2020 Global study on occupational fraud and abuse. Chicago: Association of Certified Fraud Examiners.
- Florea, R., & Florea, R. (2016). Internal audit and risk management: ISO 31000 and ERM approaches. *Economy Transdisciplinarity Cognition*, 19(1), 72-77.
- Ganesan, Y., Hwa, Y. W., Jaaffar, A. H., & Hashim, F. (2017). Corporate governance and sustainability reporting practices: The moderating role of internal audit function. *Global Business & Management Research*, Special Issue, 9, 159-179.
- García-Carbonell, N., Martín-Alcázar, F., & Sánchez-Gardey, G. (2015). Determinants of top management's capability to identify core employees. *BRQ Business Research Quarterly*, 18(2), 69-80. https://doi.org/10.1016/j.brq.2014.07.002
- Garrow, N., Awolowo, I. F., & Growe, G. (2019). Annual report: Fact or fiction. *Journal of Leadership, Accountability and Ethics*, 16(1), 21-26. https://doi.org/10.33423/jlae.v16i1.1360
- Goerdeler, K. P. M. (2019). *Global banking fraud survey*. Available at: https://assets.kpmg/content/dam/kpmg/xx/pdf/2019/05/global-banking-fraud-survey.pdf [Accessed October 25, 2020].
- Goerdeler, K. P. M. (2020). *Report to the shareholders*. Available at: http://mcdcoman.com/wp-content/uploads/2019/03/8-Auditors-Report-on-Corporate-Governance-Report-Year-ended-31-Dec-2018.pdf [Accessed October 25, 2020].
- Grove, H., & Clouse, M. (2017). Corporate governance principles and sustainability. *Corporate Governance and Sustainability Review*, 1(2), 13-19. https://doi.org/10.22495/cgsrv1i2p2
- Gullkvist, B., & Jokipii, A. (2015). Factors influencing auditors' self-perceived ability to assess fraud risk. *Nordic Journal of Business*, 64(1), 40-63.
- Henseler, J., Ringle, C., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135. https://doi.org/10.1007/s11747-014-0403-8
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: A comparative evaluation of composite-based structural equation modeling methods. *Journal of the Academy of Marketing Science*, 45(5), 616-632. https://doi.org/10.1007/s11747-017-0517-x
- Jarmai, K., Tharani, A., & Nwafor, C. (2020). Responsible innovation in business. In Jarmai, K. (Ed.), Responsible innovation (pp. 29-44). SpringerBriefs in Research and Innovation Governance. Springer, Dordrecht. https://doi.org/10.1007/978-94-024-1720-3_2
- Rittenberg, L. E. (2015). Agile auditing: Transforming the internal audit process. Internal Audit Foundation.
- Julien, R., & Richards, T. (2008). Rising to the challenge: Internal auditors can play a strategic role in emerging ERM and governance programs. *Internal Auditor*, 65(1), 43-47.
- Karanja, N. N. (2018). Effect of fraud risk management practices on level of activity by agent banks in Nairobi County (Doctoral dissertation, Strathmore University).
- Law, P. (2011). Corporate governance and no fraud occurrence in organizations: Hong Kong evidence. *Managerial Auditing Journal*, 26(6), 501-518. https://doi.org/10.1108/02686901111142558
- Lombardi, R., Trequattrini, R., Cuozzo, B., & Cano-Rubio, M. (2019). Corporate corruption prevention, sustainable governance, and legislation: First exploratory evidence from the Italian scenario. *Journal of Cleaner Production*, 217, 666-675. https://doi.org/10.1016/j.jclepro.2019.01.214
- MacRae, E., & Gils, D. V. (2010). *Internal audit capabilities and performance levels in the public sector*. The Institute of Internal Auditors Research Foundation (IIARF).
- Mansour, A. Z., Ahmi, A., & Popoola, O. M. J. (2020). The personality factor of conscientiousness on skills requirement and fraud risk assessment performance. *International Journal of Financial Research*, 11(2), 405-415. https://doi.org/10.5430/ijfr.v11n2p405
- Market, D. F. (2017). *Corporate governance report*. Available at: http://www.dfm.ae/issuers/listed-securities/corporate-governance-reports
- Mock, T. J., Srivastava, R. P., & Wright, A. M. (2017). Fraud risk assessment using the fraud risk model as a decision aid. *Journal of Emerging Technologies in Accounting*, 14(1), 37-56. https://doi.org/10.2308/jeta-51724
- Mohd-Sanusi, Z., Rameli, M. N. F., Omar, N., & Ozawa, M. (2015). Governance mechanisms in the Malaysian banking sector: Mitigation of fraud occurrence. *Asian Journal of Criminology*, 10(3), 231-249. https://doi.org/10.1007/s11417-015-9211-4

- Morang, S., & Sobel, P. (2017). Turning up the heat on fraud: A fraud risk assessment can help auditors take the organization's ethical temperature. *Internal Auditor*, 74(1), 18-36.
- NicolasGarcia, T., Fernández, F. B., & Cuesta, M. L. (2016). Board of Directors effectiveness and the Stakeholder Perspective of Corporate Governance: Do effective boards promote the interests of shareholders and stakeholders? *BRQ Business Research Quarterly*, 19(4), 246-260. https://doi.org/10.1016/j.brq.2016.06.001
- Oman Observer. (2019). CMA suspends eight audit companies. *Oman Observer*. Available at: https://www.omanobserver.om/cma-suspends-eight-audit-companies [Accessed September 22, 2020].
- Omanuna. (2015). Sustainable development. Available at: https://omanportal.gov.om [Accessed October 6, 2020].
- Parasie, N. (2020). How a Gulf hospital chain unleashed scandal in London. *Bloomberg*. Available at: https://www.bloomberg.com/news/articles/2020-05-12/how-a-gulf-hospital-chain-unleashed-scandal-in-london-quicktake [Accessed October 2, 2020].
- Puffer, S. M., & McCarthy, D. J. (2015). Institutional theory. In Wiley Encyclopedia of Management. John Wiley & Sons, Ltd. https://doi.org/10.1002/9781118785317.weom060115
- Qurashi, M. (2017). Comparison of corporate governance codes for GCC countries with the UN best practices. British Academy of Management, 2-19.
- Ramayah, T., Cheah, J., Chuah, F., Ting, H., & Mumtaz, A. M. (2016). Partial least squares structural equation modeling (PLS-SEM) using SmartPLS 3.0: An updated guide and practical guide to statistical analysis. Penang: Pearson Malaysia Sdn. Bhd.
- Rehman, A. (2021). Can sustainable corporate governance enhance internal audit function? Evidence from Omani public listed companies. *Journal of Risk and Financial Management*, 14(11), 537. https://doi.org/10.3390/jrfm14110537
- Rehman, A., & Hashim, F. (2019). Impact of mature corporate governance on the detective role of forensic accounting: Case of public listed companies in Oman. *KnE Social Sciences*, 3(22), 637-665. https://doi.org/10.18502/kss.v3i22.5080
- Rehman, A., & Hashim, F. (2020). Is corporate governance maturity measurable? *Corporate Governance*, 20(4), 601-619. https://doi.org/10.1108/CG-07-2019-0220
- Rehman, A., & Hashim, F. (2021). Can forensic accounting impact sustainable corporate governance? *Corporate Governance*, 21(1), 212-227. https://doi.org/10.1108/CG-06-2020-0269
- Rezaee, Z., Daniel, L., Ha, M., & Suen, A. (2016). Forensic accounting education and practice: Insights from China. *Journal of Forensic & Investigative Accounting*, 8(1), 106-119.
- Said, J., Alam, M. M., Ramli, M., & Rafidi, M. (2017). Integrating ethical values into fraud triangle theory in assessing employee fraud: Evidence from the Malaysian banking industry. *Journal of International Studies*, 10(2), 170-184. https://doi.org/10.14254/2071-8330.2017/10-2/13
- Salvioni, D. M., Gennari, F., & Bosetti, L. (2016). Sustainability and convergence: The future of corporate governance systems? *Sustainability*, 8(11), 1203. https://doi.org/10.3390/su8111203
- Scott, W. R. (1987). The adolescence of institutional theory. *Administrative Science Quarterly*, 32(4), 493-511. https://doi.org/10.2307/2392880
- Sharif, A. (2019). What's been learned and who's charged in Abraaj collapse. *Bloomberg*. Available at: https://www.bloomberg.com/news/articles/2019-08-07/what-s-been-learned-who-s-charged-in-abraaj-collapse-quicktake [Accessed October 2, 2020].
- Singleton, T., & Singleton, A. (2010). Fraud auditing and forensic accounting (4th ed.). John Wiley & Sons. https://doi.org/10.1002/9781118269183
- Switzer, C. S., Mitchell, S. L., & Mefford, J. L. (2015). *Governance risk compliance capability model version 3*. Open Ethics and Compliance Group.
- Torpey, D., Walden, V., & Sherrod, M. (2011). Viewpoint Breaking the status quo: Moving beyond traditional e-mail review. *Fraud Watch by EY*.
- Varma, D., & Khan, D. (2016). Greed: An attribute of fraudster. *AIMS International Journal of Management*, 10(2), 83-99.
- Vinita, R., Joe, U. C., & Lee, C. (2008). Corporate governance characteristics of growth companies: An empirical study. *Academy of Strategic Management Journal*, 7, 21-33.
- Voet, J. V. D. (2020). Different identities, different responses: The influence of organizational identities on the response of organizations to institutional pressure. *NIG Conference*, Netherlands.
- Vona, L. W. (2011). *The fraud audit: Responding to the risk of fraud in core business systems*. John Wiley & Sons. https://doi.org/10.1002/9781118387047
- Yee, C. S. L., Sujan, A., James, K., & Leung, J. K. S. (2008). Perceptions of Singaporean internal audit customers regarding the role and effectiveness of internal audit. *Asian Journal of Business and Accounting*, 1(2), 147-174.

About the Author

Ali Rehman, Ph.D. is the Director of Internal Audit at A'Sharqiyah University. His research interests include internal audit, fraud, corporate governance, sustainable corporate governance, and environmental, social, and governance issues. He holds a PhD in Risk and Corporate Governance from Universiti Sains Malaysia. He also holds the FCMA, CGMA, CIA, and CRMA certifications.