Governance of internal audit and its role in adding value A field study at Al-Watania Cement Company (Aden) in the context of improving its environmental management

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Abstract: The aim of the research is to identify internal audit governance and its role in adding value to companies in the context of improving their environmental Performance. The population of the study is comprised of Yemeni cement manufacturing companies in Aden, The study sample is Al-Watania Company. To achieve the objectives of the study, a questionnaire was developed to collect data by distributing it to a sample consisting of (the general manager, deputy general manager, department manager, department head, internal auditor, and accountant). The number of questionnaires distributed was (50), and the number of questionnaires recovered was (50), with a recovery rate of 100%. According to the study's findings, there is a statistically significant impact of internal audit governance in adding value to companies in the context of improving their environmental performance, internal audit governance impacts adding value by (0.32), while the percentage (0.68) is due to other factors. Internal audit adds value to companies by raising the efficiency of management performance in decision-making and providing appropriate information at the right time, and Provide regular updates to the company's management on environmental performance, especially when there are potential risks, and assist in responding to all risks, including environmental risks. The study suggested the need to adopt environmental auditing as a mandatory audit in all companies, especially industrial companies. Training internal auditors to develop their skills in the field of environment, procedures, and activities for environmental auditing.

Keywords: adding value, internal audit, environmental performance, corporate governance.

1. Introduction:

Governance focuses on the company's structure and operations to ensure fair, responsible, and accountable corporate behavior. It also strives to run a business that is responsible and oriented towards creating high long-term value.[1] The high value helps improve the company's image as an investment interface that can continue and grow, attracting investors.

in light of competitive markets, all institutions apply all prerogatives to manage and control the risks and internal control systems. In this environment, the internal audit function stands

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out as an important performer that, through its assurance and advisory services, can assist companies in developing and maintaining value based on a risk-based strategy. [2]

Globally, the growing environmental concerns have compelled a shift away from conventional decisions that were exclusively based on profit (economic) considerations to decisions that are broadly based and properly take into account the social and environmental factors as well. ESG (Environmental, Social, and Governance) company reporting is becoming increasingly important on a global scale. [3]

In a White Paper published in 2021, the Global Institute of Internal Auditors (IIA) emphasized that "internal audit can and should play a significant role in an organization's ESG journey".[4]

According to Lenz and Hoos 2023, A bold approach to redefining the internal audit function might be thought of by some in the professional community in order to give internal audit more value by expanding the range of internal audit activities. In order to accomplish this, The internal audit function must assist in overcoming the ESG paralysis syndrome and develop into a significant contributor to efficient corporate governance. [5]

The status of an organization's environmental performance, compliance, and the Environmental Management System (EMS) itself can all be determined through auditing its environmental management procedures. The audit results can be used as the foundation for operational improvements and to give a general picture of how well the organization's approach to environmental management and governance is working. Effective auditing can spot hazards from bad management and control, which could otherwise lead to reputational harm, cost overruns, environmental harm, and even criminal charges.[6]

There is a significant role for internal auditors to play in utilizing risk management and analytical skills to assist organizations in understanding, assessing, and recommending risk management strategies surrounding ESG.[7]

Given the importance of the subject, this study aims to determine the role of internal audit governance in adding value to companies through a field study of the Al-Watania Cement Company (Aden) in the context of improving its environmental role. It consists of two parts, the first part presents the theoretical section, while the second part covers statistical analysis and testing the study hypotheses.

2. The Study Problem:

How does internal audit governance help add value to companies in the context of improving their environmental performance?

The following two questions have been branched from the main question above as follows:

- 1. What is internal audit governance?
- 2. What is the role of internal audit governance in adding value to companies to improve their environmental performance?

This study is based on one main hypothesis to answer the questions of the study problem, which are as follows: there is a statistically significant effect of internal audit governance in adding value to companies in the context of improving their environmental performance.

Through field research at the Al-Watania Cement Company (Aden), the study aims to define internal audit governance and its role in adding value to companies and its function in enhancing internal operations in the context of improving its environmental performance.

As it theoretically and practically establishes the logical link between internal audit governance and adding value to companies to improve their environmental performance, the study emphasizes the significance of internal audit governance and its role in adding value and improving the internal operations of companies.

3. Methods:

The descriptive-analytical approach was used in the study, and the basic concepts related to the subject of the study were reviewed after reviewing previous studies that discussed the study concepts. A field questionnaire was prepared and distributed to achieve the study objectives and collect the necessary data and information. Then, the collected data were analyzed using appropriate statistical methods.

4. Study population and sample:

The study population represented Yemeni companies staff working in the field of cement industry in Aden. The study sample is Al-Watania Cement Company. As it is the second largest company working in the manufacture and packaging of cement in Aden, while the rest of the cement companies in Aden work in packaging and packaging only. As for the sample, members included in the study (general manager, deputy general manager, department manager, department head, internal auditor, and accountant).

5. Previous studies:

Hazaea et al sought to know the impact of internal audit quality on the financial performance of Yemeni commercial banks. The study concluded that adherence to internal audit standards, the independence of internal auditors, and quality governance have a significant impact on the financial performance of banks, while the size of the internal audit committees, as well as their meetings, often have a small positive impact on the performance of banks.[8]

Ayagre assessed the ability of internal audit units in public sector organizations to promote good governance. The study concluded that the ability of internal audit to ensure better governance is limited by the following: technical and professional skill set, low motivation, limited spending on internal audit, and little support for the internal audit function from management. Other limiting factors include the issue of the independence of the internal auditor which directly affects the objectivity of the internal audit and may indirectly affect the audit process that is conducted as planned.[9]

While **Omolaye and Jacob** aimed to find out the role of internal audit in promoting good corporate governance practices in the banking sector in Nigeria with a focus on performance and perhaps provide guidance on enhancing the internal audit function in corporate governance. The study confirmed that compliance with corporate governance principles (particularly the IAF) leads to better regulatory performance in the banking sector in Nigeria. Accordingly, it was recommended that the IAF should be consistently supported by management and the Board Audit Committee in terms of adequate staffing, training, and compensation for effectiveness. [10]

While **Abdul Razzaq** sought to measure the impact of internal auditing as an added value in supporting and activating cost management strategies in Egyptian companies. The study confirmed that there is a positive impact of the role of internal audit in reviewing the implementation of (cost reduction strategies, the target cost method, and the value engineering method), and internal audit contributes to its support and activation in companies. [11]

Whereas Alajeli and Asaad sought to demonstrate the role of internal audits in evaluating sustainable performance and its impact on financial report quality using the balanced scorecard, and drew the internal auditors' attention in industrial companies to the importance of evaluating sustainable performance and its influence on financial report quality. The study concluded that There is a weakness in the internal audit concerning auditing business and reports prepared by the authorities responsible for the environmental aspect. As a result, it was advised that internal audit prepare sustainable performance reports rather than traditional financial reports due to the critical importance of these reports

in disclosing all of their accomplishments, whether quantitative or descriptive, and enhancing the company's standing and reputation in the community. [12]

While **Eulerich et al** sought to find out the internal auditor's role in environmental, social, and governance (ESG) disclosure and assurance. The study concluded the notion that the environmental pillar is perceived as the core element of sustainability bearing the greatest risk, therefore propelling the need for assurance. The imbalance between assurance and consulting activities on the part of the internal audit function stresses the potential to position the internal audit function as a value-adding entity in a complementary relation to external auditors.[13]

According to previous studies, the improvement of governance, risk management, and internal control procedures, which results in the addition of value to companies, is a key function of internal audit, As one of the methods of governance.

Accordingly, this study sought to complement the efforts of previous studies to determine the role of internal audit governance in adding value to companies through a field study in the Al-Watania Company for the Cement Industry in the context of improving its environmental performance.

First: Theoretical section:

6. Internal Audit Governance:

The 2020 Manifesto of the World Economic Forum in Davos states that: "A corporation is more than an economic entity that creates wealth." As part of a larger social system, it fulfills the aspirations of humans and societies. Therefore, performance must be measured not only in terms of shareholder returns but also in terms of how a company achieves its environmental, social, and good governance objectives. [7]

Corporate governance involves a set of relationships between a company's management, its board, its shareholders, and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set. [14]

It is also defined as a set of principles encompassing economic, social, personal, and social objectives to align the interests of different stakeholders in order to gain a competitive advantage. Governance is thus a competition to perform well and provide a sense that the institution is functioning properly.[15]

Mechanisms of corporate governance (internal and external) primarily help protect the rights of shareholders and other stakeholders by enhancing oversight and control of corporate management performance and oversight of financial reporting. Internal mechanisms include the board of directors and other control bodies within the company, such as internal control systems, internal audits, and audit committees. External mechanisms include parties or agencies external to the company, such as external auditors.[16]

In contrast, the Institute (IIA) recognized in Corporate Governance Standard No. (2110) that the internal audit function is designed to evaluate corporate governance processes and recommend improvements accordingly. and Oversee risk management and internal control processes. In addition to ensuring effective performance management and accountability; reporting information about risks to the appropriate authorities; coordinating activities and sharing information between the board, the external auditors and other assurance service providers, and management.[17]

Corporate governance can be considerably enhanced by internal audits. The most important of these requirements are: - Work in accordance with acknowledged international standards for the practice of internal auditing; - Submitting its reports directly to the Board of Directors and senior management; - Its capacity for independent performance; and - The presence of an efficient reporting line to the BOD.[18]

Positive audit results can reassure stakeholders that a business is indeed working towards environmental and sustainability goals and implementing good environmental management and governance by reducing risks, strengthening management processes, and encouraging innovation and competition.[6]

7. Internal audit as a tool for adding value:

The most recent definition of internal auditing by the Institute of Internal Auditors (IIA) describes it as an independent, objective assurance and consulting activity that provides value to and enhances an organization's operations. It contributes to the achievement of organizational goals by applying a methodical, disciplined approach to assessing and strengthening the efficacy of risk management, control, and governance systems.[19]

According to the Institute of Internal Auditors' (IIA) definition of internal audit, the primary goal of internal auditing is to contribute in adding value to the organization and assist in achieving its objectives.

The Institute of Internal Auditors (IIA) believes that combining the three fundamental components of value-assurance, insight, and objectivity-internal audit brings value to the business. In addition to its function in enhancing the business's operations and assisting it in achieving its objectives. Value is realized when: [20]

- internal audit's suggested improvement actions are implemented.
- The results meet the chief executive officer's demands and expectations.
- the cost of internal audit services is reasonable.

The Institute of Internal Auditors confirms in Standard No. (2000) on managing internal audit activity. that the chief audit officer must manage the audit effectively in order to guarantee that it adds value to the company and the parties in question This occurs when he considers the plans, objectives, and risks, works to create solutions to enhance governance, management, and risk, and offers assurances of their efficacy. [17]

Both Faiteh and Aasri also agree that internal audit plays a significant role in each organization's value-adding process. And it does this by carrying out tasks, gaining experiences, and developing proposals that can alter how the governance bodies in the organization act with the main objective of adding value.[2]

8. The value of internal auditing to improve environmental performance:

Taking what we need to survive today, without sacrificing the ability of future generations to meet their requirements, is what is meant by sustainability. Sustainability in business refers to safeguarding the environment while promoting society's interests and making an economic profit. Consequently, it has a social, economic, and environmental component.[3]

The different motivations of the beneficiaries of sustainability reports have increased the pressure on companies. However, a poorly prepared sustainability report can easily violate regulatory compliance and fail to meet the expectations of stakeholders. [4]

In their study, Alajeli and Asaad point out that companies are facing difficulties disclosing sustainable performance data in traditional financial statements because they cannot contain descriptive data, which the companies have to address. So Internal auditors' conclusions about environmental and social issues, improve the credibility of the information in the financial statements and thus improves the company's reputation.[12]

Internal auditors "provide the independent internal assurance needed for trustworthy ESG disclosures, and help ensure the effectiveness of continuous monitoring processes and internal controls across the organization," according to the Internal Audit Foundation White Paper "Prioritising Environmental, Social, and Governance".[7]

Accordingly,"(Internal audit's) responsibility includes confirming the efficacy of ESG" and related controls and activities to help organizations manage those risks and foster resilience."[21]

The following are some ways that internal audits may bring value to environmental performance: [6]

- Provide senior management with regular updates on environmental performance, particularly in light of material risks or consequences for key strategic concerns;
- identifying actual flaws or possible deficiencies in environmental management procedures before they affect environmental performance and encouraging analysis of the underlying reasons to encourage genuine and lasting improvement;
- identifying instances of non-compliance with laws or other obligations (such as supplier contracts):
- identifying possible areas for environmental performance improvement, which could result in increased effectiveness, cost savings, and improved compliance;
- confirming that the organization has robust processes in place for ensuring compliance, which improves ties with regulators;
- demonstrating to stakeholders that the organization has effective environmental management processes and is achieving planned levels of performance;
- providing the basis for accurate and honest performance reporting.

It should be noted that, in order to obtain an internal audit function of added value that contributes to the preparation of environmental, social, and institutional governance reports, direct communication channels must be available with the beneficiary parties, as this helps in identifying the needs and aspirations of the parties benefiting from the internal audit function and its services.

Second: Field Study:

The descriptive analytical approach was used to achieve the study objectives and collect the necessary data and information. A field questionnaire was created, and 50 questionnaires were distributed to the sample members (general manager, deputy general manager, department manager, department head, internal auditor, and accountant). The number of questionnaires recovered was 50, with a retrieval rate of 100%, which is an excellent retrieval rate.

The researcher used the Statistical Program for Social Sciences (SPSS) to obtain more accurate results when analyzing the study data. The following data was entered using the Likert scale quintet. The most important statistical methods used in this study:

- Cronbach's alpha coefficient to test the validity and reliability of the study tool.
- Arithmetic mean and standard deviation in order to know the Trends of the answers of a sample study.
- Simple linear regression coefficient to see the effect of the independent variable (internal audit governance) on the two dependent variables (Adding value to the company in the context of improving environmental performance).

9. Stability coefficient:

The reliability of the study tool was verified using (Cronbach's Alpha) coefficient, and the results were as follows:

Table (1) .Cronbach's Alpha Test.

study axes	Coefficient Cronbach's Alpha
internal audit	0.86
governance	
adding value	0.91
Total	0.92

It is clear from the results in table No. (1) that all the questionnaire statements are of high consistency. Where Cronbach's Alpha coefficient reached 0.92, which is greater than the level adopted in the comparison (0.60), and with regard to the stability coefficient for the questionnaire axes, it achieved a high stability rate that exceeded the minimum level in the comparison (0.60), meaning there is stability in the respondents' answers towards the phrases and axes of the study.

10. Description of the characteristics of the study sample:

10.1 Age:

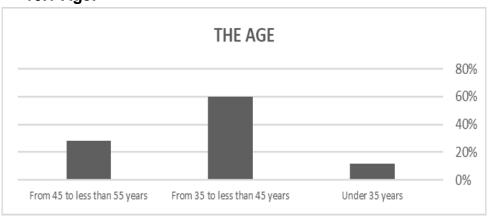


Figure (1) Age.

Figure No (1) reveals information about the participants' age. The largest category is (from 35 to less than 45 years) with 60%, which is a category characterized by maturity, followed by the category (from 45 years to 55 years) with 28 %, which is a highly experienced category. (less than 35 years) With a rate of 12%, which is a youth category characterized by activity.

10.2 Academic Qualification:

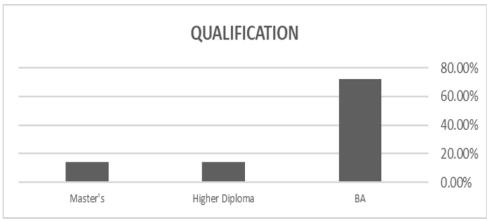


Figure (2) Academic Qualification.

Figure No. (2) shows that the largest category holds a bachelor's degree with a percentage of 72%, indicating that the company in the study lacks high qualifications as only 14% have a master's degree.

10.3 Specialization:

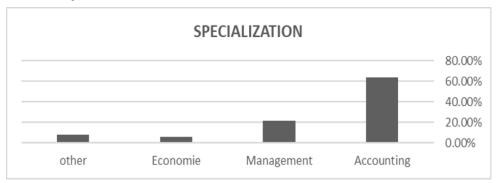


Figure (3) Specialization.

Figure No (3) shows that the largest category specializes (Accounting) with 64%, followed by (Business Administration) with 22%. Therefore, the specializations of the largest category of the study sample are related to the subject of the study.

10.4 Job Title:

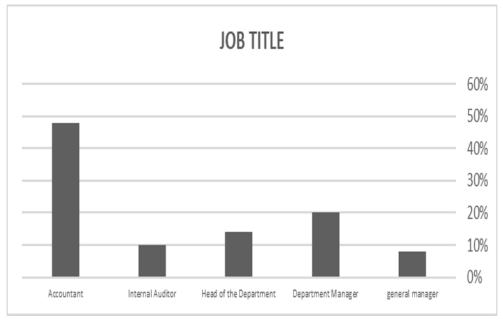


Figure (4) Job Title.

The job title can be seen in Figure No. (4). A accountant job has the highest percentage of 48%, followed by an with a percentage of 20% a Department Manager, a Head of the Department with a percentage of 14%, an internal auditor with a percentage of 10%, and general manager job with a percentage of 8%, We discovered that the majority of accountants in the study sample company also perform the internal audit function. As a result, the internal audit process loses its independence and objectivity. This causes the internal audit reports to lack credibility.

10.5 Experience years:

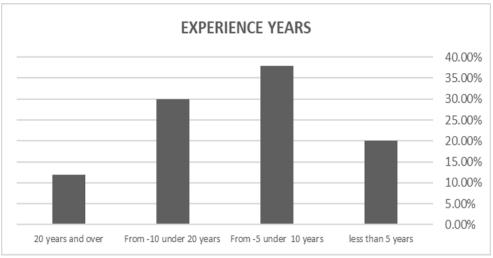


Figure (5) Experience years.

According to Figure (5), the category (from 5 years to less than 10 years) has the highest percentage of 38%, followed by the category (from 10 years to less than 20 years) with 30%, the category (less than 5 years) with 20%, and the category (from 20 years and over) with 12%. It should be noted that 80% Of the study sample members have practical experience of more than 5 years, and therefore have sufficient experience in making their answers widely accepted.

11. Analysis of the Study Variables:

The mean and standard deviation for each of the study variables will be calculated for each of the study axes as follows:

11.1 The mean and standard deviation of the first axis:

Table No. (2) The mean and standard deviation of the first axis.

	The First Axis: The Internal		Standard		
N.T				TT.	m 1
No	Audit Governance	Mean	deviation	T	Trend
1	Supporting the efficient application	4.56	0.58	19.11	Strongly
	of governance.				Agree
2	Evaluate governance systems and	4.28	0.50	18.23	Strongly
	processes.				Agree
3	Provide assurance about the	4.38	0.53	18.40	Strongly
	efficiency and effectiveness of				Agree
	governance processes.				
4	Provide the necessary	4.06	0.51	14.65	Agree
	recommendations to assist				
	management in improving				
	governance processes.				
5	Assist in identifying and evaluating	4.84	0.37	35.13	Strongly
	risks and response actions.				Agree
6	Evaluate risk management activities	4.20	0.40	21.00	Agree
	and processes.				

7	Provide assurance about the efficiency and effectiveness of risk management processes.	4.24	0.48	18.41	Strongly Agree
8	Provide the necessary recommendations to management on ways to improve risk management processes.	4.74	0.53	23.34	Strongly Agree
9	Support the efficient application of the internal control system.	4.28	0.50	18.23	Strongly Agree
10	Evaluation of internal control systems operations.	4.20	0.45	18.78	Agree
11	Provide assurances about the efficiency and effectiveness of the internal control system.	4.32	0.55	16.94	Strongly Agree
12	Provide the necessary recommendations to assist management in improving the internal control system.	4.26	0.49	18.30	Strongly Agree
	The overall mean		4	1.36	
	(standard deviation)		(0.23	

Based on the previous table, the mean of the respondents' responses towards the first axis statements (internal audit governance) was high, ranging between 4.06 as a minimum and 4.84 as a maximum, and in a strongly agreeable trend.

Statement No. (5) states (Assist in identifying and evaluating risks and response actions), ranked first with an arithmetic mean of (4.84) and a standard deviation of (0.37), in a strongly agreeable trend, while statement No. (4), which states (Provide the necessary recommendations to assist management in improving governance processes) It ranked last with an arithmetic mean of (4.06) and a standard deviation of (0.51) and in an agreeable trend.

We also find that all mean for all expressions exceeded the hypothetical mean (3), and to test the difference between the mean of the items of the first axis and the hypothetical mean (3), the (T) test was used for one sample, and the level of significance associated with this test for all items was (0.000), which is less than The level adopted in the comparison is (0.05), which indicates that the responses of the study sample towards the paragraphs of this axis are high.

The overall mean for the first axis was (4.36) with a standard deviation of (0.23) in a strongly agreed trend, which indicates that the response trends in the first axis (internal audit governance) in general were significant, which is also confirmed by the relative importance of the phrases, as they exceeded the minimum level of 0.68.

Based on the previous descriptive analysis, we found that the strengths in the first axis (internal audit governance) centered on the fact that Internal audit governance supports the effective application of governance, helps in identifying and evaluating risks, developing response plans, and dealing with them, and provides management with recommendations on how to enhance risk management procedures. Additionally, it offers adequate reassurances regarding the effectiveness and efficiency of the company's internal control, risk management, and governance systems.

11.2 The mean and standard deviation of the second axis:

Table (3) .The mean and standard deviation of the second axis.

	Table (3) . The mean and standard The second axis: adding value to		Standard	iu aais.		
No	companies	Mean	deviation	Т	trend	
1,0	V 0 puv 0	112002		_	02 0220	
1	provide the basis for accurate and honest	4.52	0.58	18.53	Strongly	
	performance reporting.				Agree	
2	Rapid responses to risks, including	4.40	0.54	18.52	Strongly	
	environmental risks.				Agree	
3	Provide objective assurance that key	4.34	0.63	15.13	Strongly	
	risks are being appropriately managed.				Agree	
4	Provide independent assurances that the	4.38	0.64	15.36	Strongly	
	company's risk management,				Agree	
	governance, and internal control					
	processes operate effectively and					
5	efficiently.	1.26	0.52	10.21	C4mamal-	
٥	Provide assurance on the effectiveness of environmental, social, and	4.36	0.53	18.31	Strongly Agree	
	institutional governance, controls, and				Agree	
	related activities.					
6	The internal auditors' conclusions about	4.28	0.50	18.23	Agree	
	environmental and social issues improve	20	0.00	10.20	119100	
	the credibility of the information					
	contained in the financial statements and					
	thus improve the company's reputation.					
7	Raising the efficiency of management	4.74	0.49	25.27	Strongly	
	performance in decision-making by				Agree	
	providing appropriate information at the					
8	right time. identifying potential areas for	4.64	0.53	22.08	Strongly	
0	identifying potential areas for performance improvement leading to	4.04	0.55	22.08	Strongly Agree	
	increased effectiveness, cost savings,				Agree	
	and improved compliance.					
9	Provide senior management with regular	4.60	0.54	21.17	Strongly	
	updates on environmental performance,				Agree	
	particularly in light of risks or material					
	consequences.					
10	Help ensure the effectiveness of	4.36	0.53	18.31	Strongly	
	continuous monitoring and internal				Agree	
	controls in the company.			1.0		
	The overall mean	4.46				
	(standard deviation)		0.	.15		

According to the previous table, the mean of the respondents' responses towards the phrases of the second axis (adding value to companies in the context of improving their environmental performance) was high, ranging between 4.28 as a minimum and 4.74 as a maximum, and in a strongly agreeable trend.

Statement no (7), stating that "raising the efficiency of management performance in decision-making by providing appropriate information at the right time", ranked first with an arithmetic mean of (4.74) and a standard deviation of (0.49) in a strongly agreeable

trend, while statement No. (6), which states "The internal auditors' conclusions about environmental and social issues improve the credibility of the information contained in the financial statements and thus improve the company's reputation", it ranked last with an arithmetic mean of (4.28) and a standard deviation of (0.50), and in a strongly agreeable trend.

We also find that all mean for all expressions exceeded the hypothetical mean (3), and to test the difference between the mean of the items of the first axis and the hypothetical mean (3), the (T) test was used for one sample, and the level of significance associated with this test for all items was (0.000), which is less than The level adopted in the comparison is (0.05), which indicates that the responses of the study sample towards the paragraphs of this axis are high.

The overall mean for the second axis was (4.46) with a standard deviation of (0.15) in a strongly agreed trend, which indicates that the response trends towards the second axis (adding value to companies in the context of improving their environmental performance) in general were significant, which is also confirmed by the relative importance of the phrases, as they exceeded the minimum level of 0.68.

Based on the previous descriptive analysis, we found that the strengths in the second axis (adding value to the company in the context of enhancing its environmental performance), are centered on the fact that internal audit governance adds value to the company, by assisting in improving the administrative performance of decision-making, through providing senior management and other departments in the company with appropriate information at the right time. and Contribute to identifying potential areas for performance improvement, in order to raise the efficiency and effectiveness of activities and operations, control compliance and reduce costs.

With regard to the company's environmental performance, an internal audit provides company management with regular updates on environmental performance, especially in the presence of risks. It also contributes to the speed of response and dealing with all risks, including environmental risks. In addition to providing accurate and honest performance reports to the Board of Directors and senior management.

12. Hypothesis testing:

The main hypothesis of the study:

There is a statistically significant impact of internal audit governance in adding value to companies in the context of improving their environmental performance.

To analyze the main hypothesis of the study, we define the independent variable (internal audit governance) and the dependent variable (adding value).

Table (4). Regression results for the relationship between internal audit governance and adding value to companies.

independent variable	Dependent variable / adding value to companies in the context of improving their environmental performance								
	Model parameters		The	T. t	test			F. test	
			standard	T	Sig	R	\mathbb{R}^2	F	Sig
			error						
Regression		1.222	.685	1.784	.081				
constant	A								
						0.50	0.00	22 477	000
internal		.743	.157	4.741	.000	0.56	0.32	22.477	.000
audit	В								
governance									

As shown in the previous table, there is a medium direct correlation between internal audit governance and adding value to companies in the context of improving their environmental performance, this is indicated by the correlation coefficient, where its value reached (0.56), which is statistically significant at a significant level (0.05).

It is also confirmed by the slope of the regression model of (.7430), The internal audit governance also affects adding value to companies in the context of improving their environmental performance by 0.32, while the percentage (0.68) is due to other factors not included in the model. This was shown by the F test, where its value was (22.477) and at a level of statistical significance (.000), which is higher than the level adopted in the comparison of 0.05. Accordingly, we accept the main hypothesis (there is a statistically significant impact of internal audit governance in adding value to companies in the context of improving their environmental performance).

According to the findings of the study:

- 1. internal audit governance assists in identifying, and evaluating risks and response procedures, and works to provide recommendations to management, on ways to improve risk management processes.
- 2. internal auditing adds value to the company by raising the efficiency of management performance in decision-making and providing appropriate information at the right time.
- 3. The internal audit provides company management with assurances, and guarantees regarding the effectiveness and efficiency of (governance, risk management, and internal control) operations, as well as recommendations on how to improve them.
- 4. The internal audit provides the company's management with regular updates on the environmental performance, especially when there are potential risks. Moreover, he assists the management in responding to and dealing with all risks, including environmental risks.
- 5. Internal audit offers accurate, reliable, and unbiased performance reports to senior management and the board of directors.

6. The results of the field study showed the following:

- there is a statistically significant impact of internal audit governance in adding value to companies in the context of improving their environmental performance.
- The overall mean for the first axis (internal audit governance) was 4.36, which is very high.
- The overall mean for the second axis (adding value to companies in the context of improving their environmental performance) was 4.46, which is a very high rate.
- 7. The field study's findings demonstrated that internal audit governance impacts adding value to companies, in the context of improving their environmental performance by (32%), while the percentage (68%) is due to other factors not included in the model.

13. conclusions:

In order to reach a high value, there is a need for more control and oversight of the company's internal activities and operations, through internal control systems, including internal audit. The internal audit plays an important role in assisting the management in achieving the company goals, and improving the performance of internal operations. Thus, adding value to the company. Currently, Internal auditors are ideally positioned to function as catalysts for advancing an organization's ESG goals, while assisting in the identification of potential impediments, because of their capacity to predict risks, advise senior leaders and the board of directors, and provide assurance. [21]

According to Lenz and Hoos, chief audit executives should consult with the board of directors and senior management. To learn how internal audit can assist the organization in managing environmental, social, and corporate governance and associated risks. Thus,

understanding what is expected of internal audit services to be provided, and realizing the quality of services and activities that increase the value of internal audit .[5]

On the other hand, we can say that internal audit cannot play a major role in improving environmental performance, in light of its use of traditional techniques and methods, that do not provide sufficient information about the environmental and social performance of the company, and thus its failure to provide the necessary information to management and the board of directors in the environmental field.

It should be noted that companies can benefit from the value-added internal audit function, by giving them more autonomy and sufficient powers, and focusing internal audit resources on covering areas with high risks and high benefits, thus enhancing the professional credibility of the internal audit function.

14. Recommendations:

- 1. Proceeding from the importance of governance, corporate management should give more attention to the processes and rules of governance, activate its mechanisms, and adhere to their proper application.
- 2. Qualifying the internal auditors working in the companies on a regular basis, and introducing them to the duties of internal auditing and modern trends in the profession.
- 3. Commitment to following the guidelines provided by the Institute of Internal Auditors (IIA) in order for the internal auditor to carry out his responsibilities effectively and credibly.
- 4. Based on the importance of the independence of the internal auditor, the tasks must be separated between the job of the accountant and the internal auditor. According to the same study company, most accountants perform the internal audit function.
- 5. The need to adopt environmental auditing as a mandatory audit in all companies, especially industrial companies.
- 6. Developing the internal control system to be a preventive system, not just a control system, for early detection of potential environmental violations and risks.
- 7. Training internal auditors to develop their skills in the field of environment, procedures, and activities for environmental auditing.
- 8. Industrial companies in the Republic of Yemen must set clear goals, policies and plans to tangibly develop their environmental performance.

References:

- [1] P. M. Madhani, "Corporate Governance: A Journey from Compliance to Competitive Advantage." Rochester, NY, Dec. 12, 2009. Accessed: May 24, 2023. [Online]. Available: https://papers.ssrn.com/abstract=1521370
- [2] A. Faiteh and M. R. Aasri, "Internal Audit and Added Value: What is the Relationship? Literature Review," *Univers. J. Account. Finance*, vol. 10, no. 3, pp. 666–675, May 2022, doi: 10.13189/ujaf.2022.100304.
- [3] P. K. Manoj, "ESG Reporting for Business Sustainability: Role of CMAs in Internal Audit," *Manag. Account. J.*, vol. 57, no. 7, pp. 68–71, 2022.
- [4] "white-paper-internal-audits-role-in-esg-reporting.pdf." Accessed: May 24, 2023. [Online]. Available: https://www.theiia.org/globalassets/documents/communications/2021/june/white-paper-internal-audits-role-in-esg-reporting.pdf
- [5] R. Lenz and F. Hoos, "The Future Role of the Internal Audit Function: Assure. Build. Consult," *EDPACS*, vol. 67, no. 3, pp. 39–52, Mar. 2023, doi: 10.1080/07366981.2023.2165361.
- [6] "IEMA The Value of Environmental Auditing: an IEMA Senior Management Briefing March 2021." https://www.iema.net/resources/reading-

- room/2021/03/29/the-value-of-environmental-auditing-an-iema-senior-management-briefing (accessed May 24, 2023).
- [7] "iia-whitepaper_esg-and-the-role-of-internal-audit.pdf." Accessed: May 24, 2023. [Online]. Available: https://www.iia.org.au/sf_docs/default-source/technical-resources/2018-whitepapers/iia-whitepaper_esg-and-the-role-of-internal-audit.pdf?sfvrsn=4
- [8] S. Hazaea, M. Tabash, S. Khatib, J. Zhu, and A. Alkuhali, "The Impact of Internal Audit Quality on Financial Performance of Yemeni Commercial Banks: An Empirical Investigation," J. Asian Finance Econ. Bus., vol. 7, pp. 867–875, Nov. 2020, doi: 10.13106/jafeb.2020.vol7.no11.867.
- [9] P. Ayagre, "Internal Audit Capacity to Enhance Good Governance of Public Sector Organisations: Developing Countries Perspective," *J. Gov. Dev.*, vol. 11, pp. 39–60, Jun. 2015.
- [10] O. KE and J. RB, "The Role of Internal Auditing In Enhancing Good Corporate Governance Practice in an Organization," *Int. J. Account. Res.*, vol. 06, Jan. 2018, doi: 10.4172/2472-114X.1000174.
- [11] S. Abdul Razzaq, "Internal Audit as an Added Value to Support and Activate Cost Management Strategies in Egyptian Companies," *Journal of Accounting Thought*, vol. 21, no. 2, pp. 1094–1145, 2017.
- [12] E. H. A. Alajeli and A. M. A. Wahhab, "The Role of Internal Audit in Evaluating Sustainable Performance and Its Impact on the Quality of Financial Reports," *Tech. Soc. Sci. J.*, vol. 36, p. 1, 2022.
- [13] A. Bonrath, M. Eulerich, and V. Lopez-Kasper, "Internal Auditor's Role in ESG Disclosure and Assurance: An Analysis of Practical Insights." Rochester, NY, Nov. 18, 2022. doi: 10.2139/ssrn.4070755.
- [14] OECD, OECD principles of corporate governance: 2004, Rev. version. Paris: OECD, 2004
- [15] J. M. Nginyo, D. T. K. Ngui, and D. J. F. Ntale, "Corporate Governance Practices and Competitive Advantage of Kenolkobil Company Limited, Kenya," 2018.
- [16] S. Mohammed, *Internal audit and a course in raising the competitiveness of the institution*, First edition. Jordan: Center for Research and Development of Human Resources (Ramah), 2016.
- [17] "ippf-standards-2017.pdf." Accessed: May 24, 2023. [Online]. Available: https://www.iia.org.au/sf_docs/default-source/quality/ippf-standards-2017.pdf?sfvrsn=2
- [18] Internal Audit Committee, *Guide to Internal Audit Procedures for Units of the Administrative Apparatus of the State and the Public and Mixed Sectors.* Republic of Yemen.: Yemeni Council of Ministers, 2012.
- [19] Kassou, M. et al., Digital transformation in flow planning: The case of container terminals at a smart port, Journal of Theoretical and Applied Information Technologythis link is disabled, 2021, 99(9), pp. 1966–1976
- [20] "internal-auditing.pdf." Accessed: May 24, 2023. [Online]. Available: https://www.iia.org.au/sf_docs/default-source/technical-resources/2018-fact-sheets/internal-auditing.pdf
- [21] "ESG and the Role of Internal Audit," WSJ. https://deloitte.wsj.com/articles/esg-and-the-role-of-internal-audit-01632917847 (accessed May 25, 2023).