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Evidence from Iraqi Banks on the Reporting of Sustainability Determinants and Their Impact on Market Returns

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Abstract. The objective of this study is to define the concept of sustainability, its dimensions, and the importance of reporting it; to measure the level of reporting on the dimensions of sustainability for banks listed on the Iraq Stock Exchange; and to determine the effect of the level of reporting on market returns and the cost of equity financing. A sample of commercial banks registered on the Iraqi market was chosen for the study objective. The study relied on the applied side of the employment of environmental, social, and governance (ESG) indicators and the standards of the Global Reporting Initiative (GRI) to analyze the content of the reports of the commercial banks and to determine the extent of their commitment to reporting on the dimensions of sustainability. Commercial banks issued ten (10) securities during the period (2016–2021). The market returns of shares were calculated using the annual closing and opening share prices. Between weak and very weak, the general average level of reporting information related to the economic pillar was 34.22. In comparison, it was 7.23 for the environmental and 15.70 for the social pillars. The governance axis had a reporting rate of 24.95%, while the average reporting rate for other public disclosures was 43.72%. The study also uncovered a direct and statistically significant relationship between the market returns of the study sample institutions' shares and the dimensions of sustainability.

Keywords. Iraqi Banks, Reporting of Sustainability, Market Returns

1. Introduction

Due to the emerging financial and social problems and crises that have occurred on a global scale and had varying effects on all countries, sustainability is one of the topics that has captivated the attention of the world's nations over the past few years. This has prompted the world's governments to conduct conferences, pass laws and directives, and adopt mechanisms and work theories from the United Nations. Its objective to safeguard future generations' rights is to achieve social justice, enhance human life, protect the environment, conserve resources, and limit their depletion. The human being is the central pillar to attain economic, social, and environmental goals. Companies build their reputations by reporting financial and non-financial information to stakeholders on economic, social, environmental, and governance performance. Alajeli & Wahhab (2022) In addition to the financial impact of the company to better evaluate its performance and determine the extent of its capacity to grow, continue, and deal with risk, which is reflected in improving the reputation and image of the company in society and ensuring

the sustainability of its profitability and achieving a competitive advantage, it has become essential for companies that wish to continue and remain in the market. Despite the numerous efforts to organize Sustainability reporting, a company can achieve its goals by reporting sustainability information due to its positive effects on closing the information gap between management and investors. This, in turn, leads the company to attract more investments, increasing its profitability and stock returns. However, the Global Sustainability Reporting Initiative's (GRI) efforts are the most prevalent in this field, assisting businesses in understanding and communicating their economic, social, and environmental impacts. Therefore, applying GRI standards increases the comparability and quality of the reported information, allowing for more informed decision-making. The market return per share is one of the most essential factors in determining the viability of investment decisions and their efficiency and efficacy, as it is regarded as one of the most essential and prominent market indicators that play a significant role in evaluating investments and surrounding risks and revealing their economic impact.

2. Background

An investigation by Malo-Alain et al. (2019), Measured the impact of accounting disclosure for sustainable development on the quality of financial reports measured by discretionary accruals, accounting conservatism, and information inconsistency for a group of Saudi financial market-listed companies. The content analysis method was used to examine the 2018 financial reports of 153 companies, and it was discovered that there is a significant and negative correlation between the accounting disclosure of sustainable development and both the discretionary accruals and the inconsistency of information, as increased disclosure of sustainability leads to a decrease in the value of discretionary accretions. The findings also demonstrated a positive and statistically significant correlation between accounting disclosure about sustainable development and accounting conservatism. The company's value and to achieve this study's objective were applied to a sample of 171 manufacturing companies listed on the Indonesia Stock Exchange for the period (2017-2019), where the data used in this study were analyzed using path analysis. The study concluded that there is a positive impact on economic and social performance And an environmental on financial performance. The study also found a negative impact on economic and social performance And an environmental on financial performance. As for the study by Tawfik et al. (2021) to indicate the impact of the various dimensions of sustainability (economic, social, and environmental) on the financial performance of commercial banks and to achieve the purpose of this study, it was applied to a sample of commercial banks operating in three Arab countries (Oman, United Arab Emirates, Jordan) during the period 2007-2018, with data collected from financial reports and sustainability reports for each bank.

The study by Kinyua (2020) determined how corporate sustainability reports affect the stock returns of companies listed on the Nairobi Stock Exchange. To accomplish this, the study applied to 63 companies listed on the Nairobi Stock Exchange from 2015 to 2019, during which the reports were evaluated. Corporate sustainability is measured by the Sustainability Reporting Index created by the Global Reporting Initiative (GRI), financial leverage is measured by the debt ratio, management efficiency is measured by total revenue to total assets, and company size is measured by total assets. The study relied on annual reports issued by corporations. The study reached several results, the most important of which is that the reports of corporate sustainability and the size of the company resulted in a positive and statistically significant relationship with stock returns, while financial leverage produced negative intrinsic values,

while management efficiency resulted in positive but weak values, while the study Ye, et al. (2022) towards investigating the dynamic relationship between indicators of environmental and social governance, corporate governance, stock returns and sustainable performance reflected through economic, social and environmental dimensions, and to achieve the goal of this study, it was applied to a sample of listed companies operating in the member states of the European Union (EU) for the period 2018 -2010, and the study found several results, the most important of which is the presence of an important and positive impact for all three measures of sustainable practices as reflected by the targeted companies in the European Union on the economic, social and environmental dimensions of performance. In conclusion, the study by Peltonen (2022) demonstrated the effect of environmental, social, and corporate governance ratings on stock returns and company performance in Nordic countries. It also seeks to determine if the results vary across the Nordic nations (Finland, Sweden, Denmark, and Norway). Financial and environmental, social, and governance (ESG) data were compiled from a database of 192 public companies listed on the Finnish, Swedish, Danish, and Norwegian stock exchanges for 1999–2021. High environmental, social, and corporate governance (ESG) ratings do not have a statistically positive effect on stock returns and company performance, as sustainability does not appear to have a significant impact, particularly on stock returns although However, positive correlation between ESG ratings and corporate governance in some Nordic countries. The study by Arrigo (2021) The Impact of business sustainability performance (ESG) on the Cost of equity capital, concluded that a negative relationship exists between sustainability performance and the cost of equity capital. Al-Sahmi, While the study of Gholami et al. (2022) focused on the impact of disclosure of social, environmental, and governance performance on the cost of capital and the risks of the company, this study was applied to all Australian companies listed on the Australian Stock Exchange from 2007 to 2017. It collected and analyzed ESG data for Australian companies (a study Sample) from the Bloomberg database. The most important result of the study is the existence of an adverse effect of disclosure of social, environmental, and governance performance on the company's cost of capital and hazards, where the more significant the revelation of social performance, the greater the adverse effect. While a study by Gonçalves et al.(2022) analyzed the relationship between corporate environmental, social, and governance (ESG) performance and the cost of equity and debt for STOXX Euro 600 companies, the company's capital and risks decreased. It was applied to two samples of the largest European companies listed in STOXX Euro 600 based on the availability of different data for the period 2002–2018, with the first sample consisting of 388 companies listed in STOXX Euro 600 and the second sample consisting of 413 companies, and several results were obtained. The most significant is a positive relationship between corporate sustainability performance and debt expense. The study also revealed a negative correlation between corporate sustainability performance and the cost of equity.

This study attempts to present the general framework of the Global Sustainability Reporting Initiative (GRI) to determine the items to be reported in annual reports to measure the level of reporting on the dimensions of sustainability following the general framework of Iraqi banks, the study ample, and the impact of reporting on the dimensions of sustainability on market returns.

2. Literature Review

2.1 Reporting Dimensions of Sustainability

The concept of sustainability emerged in the early 1970s as a result of growing awareness of global environmental issues, which in turn was influenced by ecological activities

in the 1960s and the publication of books and articles such as Rachel Carson's *Silent Spring*, which resonated around the world and warned against the use of chemical pesticides to eliminate insects. Pests called for respect for the ecosystem to preserve human health and the environment and the 1972 Stockholm United Nations Conference on Environment and Development, Loo & Mahdavinejad (2017). represents the first global conference on human environmental impacts and serves as a starting point for Sustainability in the modern era. This conference had many significant outcomes, including the establishment of the United Nations Environment Program, a division of the United Nations whose mission is to monitor and evaluate the environment around the world and to develop solutions, guidelines, and strategies to protect the environment and assist organizations in developing countries with limited resources to manage the environment Afjei(2015), and that sustainability works to preserve the natural capital of the planet, which is provided by nature during the execution of economic operations; therefore, economic activities should not exceed the maximum limits to prevent environmental degradation or the minimum limits to maintain community acceptance. Sustainability is not solely concerned with preserving natural resources. Nonetheless, it also focuses on preventing the systematic deterioration of social and environmental systems and attaining social harmony. El-Rahman, (2019). Sustainability creates a better world for present and future generations by enhancing the quality of life of people and preserving the planet and its environmental systems Sakalasoorya, (2021). One of the most crucial aspects of sustainability is ensuring a better future for future generations, which includes fostering intergenerational equality Abele (2019), and the most common and widely used definition of sustainability is a development that meets the requirements of the present without compromising future generations' ability to meet their own needs. Pazienza et al. (2022)

The concept of sustainable development was reaffirmed at the 1992 United Nations Conference on Environment and Development, also known as the Earth Summit, in Rio de Janeiro, Brazil. Numerous nations participated in the conference, centering on delineating a global framework for addressing environmental degradation issues through sustainable development. For sustainable development its outcomes were the Rio Declaration on Environment and Development (2018) and the 2002 United Nations World Summit Conference conducted in South Africa. This conference produced the Johannesburg Implementation Plan, which emphasized the comprehensive implementation of sustainability Armstrong, (2021). The conference centered on several issues, the most significant of which are eradicating poverty, preserving natural resources, promoting global trade, preserving biodiversity, and ensuring sustainable production. Figure 1 depicts the most significant United Nations sustainability conferences.

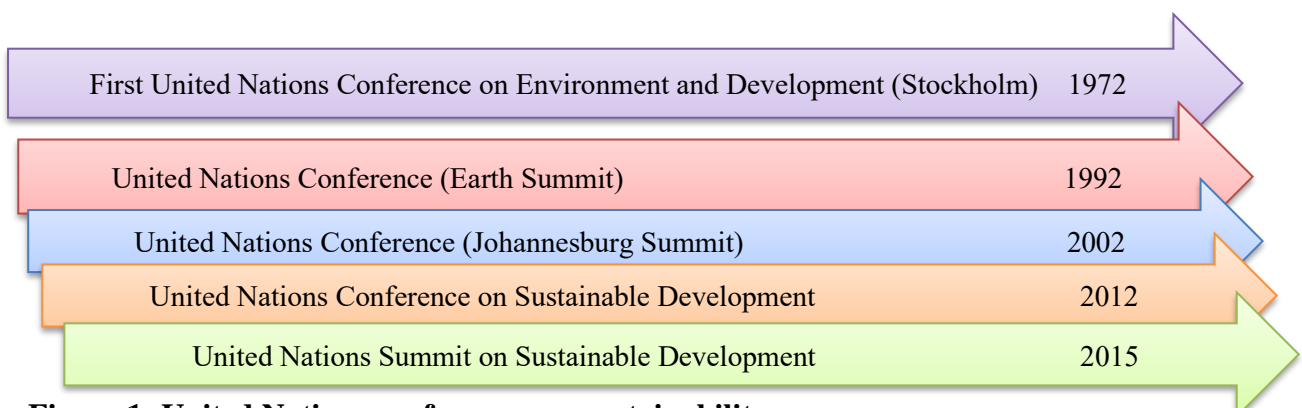


Figure 1: United Nations conferences on sustainability

2.2 Sustainability and Business Environment

In light of the acceleration towards adopting the principles of sustainability as a result of climate change and the importance of preserving the environment, a group of companies emerged that attempted to exploit these conditions in the wrong way, leading them to color their business under the guise of appearing to be a sustainable company. Currently, the accounting study is centered on the subject of a great deal of study in the past. Sustainability depends on the sustainability of companies because sustainability has become one of the primary priorities in the strategies adopted by the majority of companies in the 21st century due to its long-term impact on the success and development of companies as well as their compliance with the requirements imposed by the global business environment. Businesses' degree of success and social acceptability is determined by their contribution to environmental improvement. Thabit & Ibraheem (2019) argue that corporate sustainability balances economic and social progress with environmental management. Sustainability requires not only the reduction of pollution and resource consumption but also a change in the way people live. By consuming natural resources for economic purposes to be compatible with human health and security, He also satisfies the requirements of the company's direct and indirect stakeholders without jeopardizing its future ability to do so. In a related context, Erhirhie (2018) can express corporate sustainability. It incorporates sustainability's economic, social, and environmental dimensions into decision-making processes using corporate governance principles to attain a state of equilibrium. In addition to providing companies with a competitive advantage, according to Zgül & Gürol (2019), a company's intellectual property is a valuable asset with distinct future benefits and the ability to create value., "Creating Value for the Company" El-Rahman (2019).

2.3 Dimensions of Sustainability

The dimensions of sustainability are inextricably intertwined in a relationship that is both balanced and complementary. Achieving distinction and excellence in sustainability is only possible with harmony and compatibility between these dimensions. There are economic, social, environmental, governance, and political dimensions of sustainability.

Economic sustainability refers to the economic impact of a company on external and internal stakeholders as well as on economic systems at the local, national, and global levels, as it explains the flow of capital between the various stakeholders and the company's significant economic impacts on society as a whole Tawfik et al. (2021), and businesses must be economically sustainable and contribute to excellent performance at the micro level by reducing expenses, maximizing profits, and returning capital to shareholders. Papoutsi (2018), in addition to the company's ability to achieve profits and guarantee efficient resource management to benefit local and global economic systems. Fong et al. (2016), Consequently, economic sustainability is "a production system that meets current consumption levels without compromising future needs" Iten (2020), and the primary objective of economic sustainability is to reduce poverty by providing permanent and secure livelihoods, improving people's standard of living, and achieving economic efficiency through the optimal use of resources and the reduction of environmental degradation and social instability Kuffour (2019).

Social sustainability refers to "managing the company in a way that reduces social inequality and divisions and improves the quality-of-life Chow & Chen, (2012), as well as "adding value to the communities in which the company operates by increasing the human capital of partners and enhancing the social capital of these communities Papoutsi (2018).

The environmental dimension refers to the integrity of the ecosystem, ensuring the preservation of natural resources, biodiversity, air, and soil quality, reducing greenhouse gas

emissions, limiting environmental pollution, preserving water and energy, and reducing its consumption Mensah (2019), achieving balance, flexibility, and interdependence, and allowing human society to meet its needs without exceeding the capacity of the environmental systems that sustain it to c. According to Goyal et al. (2018), a company is environmentally sustainable if it reduces the impact of environmental pollutants like gas emissions by consuming as many resources as its natural systems can handle and if it strives to minimize the effects of environmental contaminants like emissions and waste from its operational activities. According to Tüm (2014), environmental sustainability seeks to indefinitely sustain global life support systems through strategies to enhance human welfare by protecting natural resources, reducing consumption, and minimizing environmental impacts harmful to human health. The governance dimension refers to the principles applied by the company to help stakeholders monitor controls, resolve conflicts of interest, enhance transparency, and ensure good corporate governance to comply with laws, rules, and regulations, especially those related to social, economic, and environmental issues, and implement corrective measures to maintain the company's sustainability Danso et al. (2019).

The political dimension is the central pillar for achieving sustainable development by embodying governmental principles and managing political life in a way that considers and ensures the foundations of transparency and democracy in decision-making, the growth of trust and credibility, and the assumption of sovereignty and independence for society and its future generations. Jawad & Hassan (2021), The absence of politics will negatively impact development's economic, social, and environmental dimensions. Therefore, the political leadership must have a strong will and conviction regarding the significance of adopting sustainable development to find solutions to environmental problems, reduce the environmental damage that affects the planet, preserve the right of future generations to resources, narrow the gap between social groups, and achieve a balance between economic and social factors. And environmental Abu Elyan (2017). Figure 2 depicts the dimensions of sustainability.

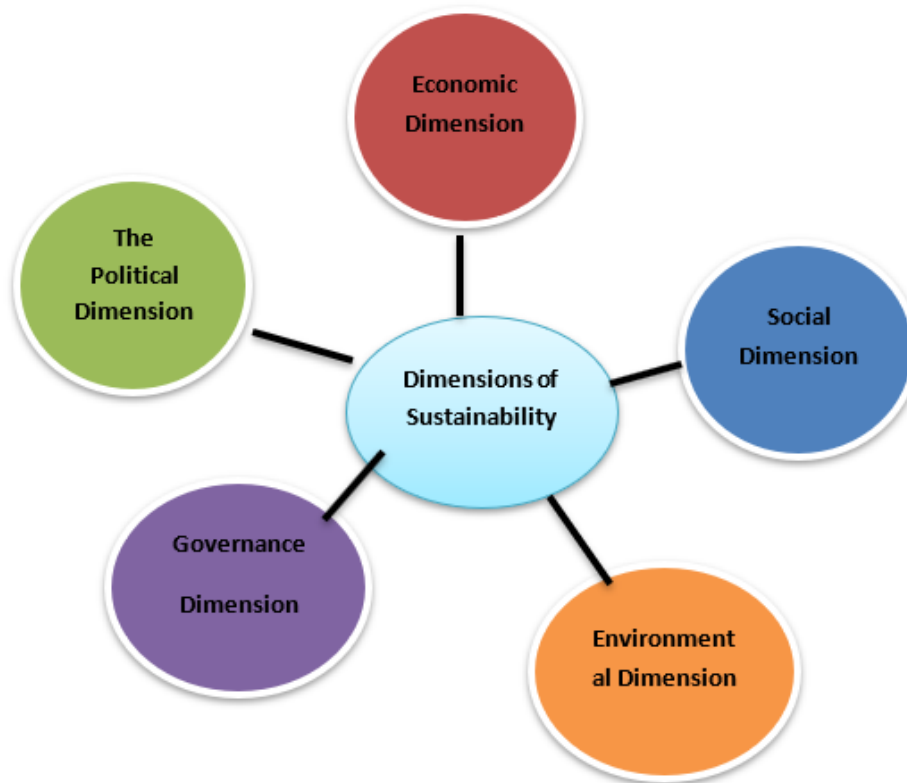


Figure 2: Dimensions of Sustainability

2.4 The Global Reporting Initiative (GRI).

Due to external pressures from stock exchanges, markets, governments, and stakeholders to report more transparent reports regarding their economic, social, and environmental performance, several companies have begun to recognize the need to make their operations more sustainable in recent years. Traditional financial statements failed to meet the needs of stakeholders because they needed to reflect the company's ability to survive and continue in the long term. Moreover, as concern for the global environment and the preservation of the ecosystem to ensure its sustainability grows, sustainability reports have become essential for both developed and developing economies Uwuigbe et al., (2018).

The Global Reporting Initiative (GRI) promotes consistency, standardization, and the international classification of regulatory reports and publishes guidelines for this form of reporting Sucena & Marinho, (2019). The GRI also seeks to identify appropriate standards for reporting on sustainability. Additionally, it endeavors to advance economic, social, and environmental sustainability. Companies with a global framework for reporting Schiehlé & Wallin, (2014) create a common language for companies and stakeholders so that the economic, social, and environmental impacts of those companies can be communicated and understood, and it increases global comparability of information quality, allowing for greater transparency and accountability Hidayah et al. (2021). It improves the accuracy and transparency of sustainability reporting and serves as an international reference for compiling corporate sustainability performance reports. Journeault et al. (2019) Consequently, the primary objective

of the global reporting initiative is to discover a single reporting system that all companies can use to report on their economic, social, and environmental impacts Pretsch (2017).

3.5 Market Returns and Corporate Risks

Current and potential investors recognize that the return is the primary reason for investing in a company, as the investor seeks to achieve maximum returns to maximize his wealth and minimize the risks associated with returns, According to Idris & Bala (2015), numerous investment opportunities are available to individuals and businesses, the most significant of which is an investment in securities issued by publicly traded companies. Investment is a present commitment of money and other resources that are anticipated to produce future returns. According to Bodie et al. (2014), investment is a form of sacrifice made by the investor in a particular company or project to attain greater returns in the future. According to Soeharto and Violita (2019), investments have two characteristics: The first requirement is profitability. The second is that its returns are uncertain and subject to fluctuations, which means that the return on investment represents "an amount expected to be obtained and added to wealth during a future period, as these returns are linked to the future, so they are uncertain, which means they are highly risky." Al-Qudah & Laharm (2013), Some believe that the return is the change in the asset's value over a specific period, as this change is caused by the asset's price fluctuation in addition to the benefits of interest or payments. By Nafooti et al. (2013) and the market return of the share, the following is true: What the investor receives during a specific time as a consequence of his investment capital. According to Mwangi & Mwiti (2015), the return on the income level is calculated by subtracting the current closing price from the closing price of the preceding share and dividing it by the closing price of the prior share. Nurhikmawaty & Widiyanti (2020), The availability of sufficient information on the market and the effectiveness and efficacy of allocating stock returns determines stock returns. Typically, fluctuations in stock prices, which generate uncertainty in stock returns, influence supply and demand. Volatility in stock returns is "the inability to accurately predict stock prices." As stated by Kibara (2021), the returns on shares are a metric used to determine profits from investment during the period of ownership of shares, as well as the driving force and primary reward in the investment process, as investors use it to compare alternative investment options. Kinyanguk (2018)

It is evident from the previous sentence that stock returns are an essential factor to consider when making investment decisions. The investors' primary objective is the financial return they receive for investing their money in a particular field during a specific period, Figure (3) shows the factors affecting the market returns of stocks.

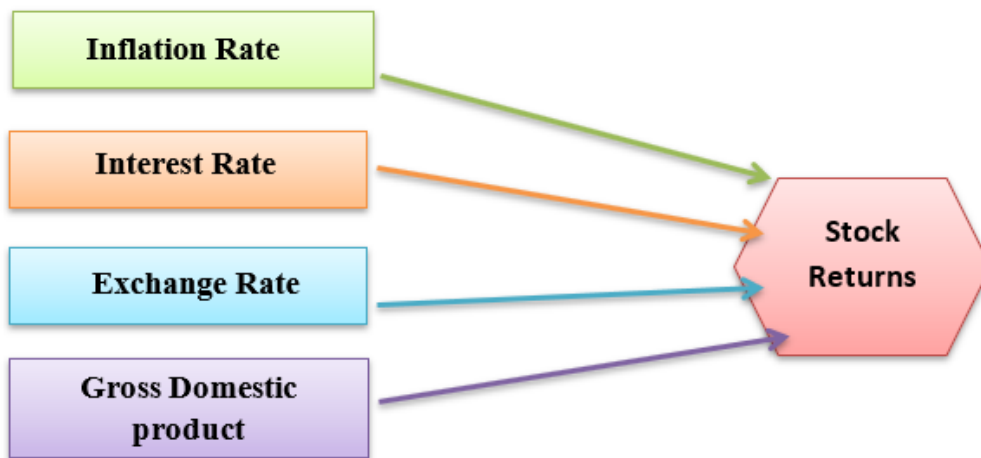


Figure 3: Factors affecting stock market returns.

2.6 Return and Risk in the Business Sector

One of the risks that the business sector is exposed to is systemic risk, or what is sometimes referred to as market risk, which affects the security and cannot be eliminated by diversification in securities, as diversification is a means by which risks can be reduced by investing in different securities, i.e., by forming a diversified portfolio of shares consisting of different shares, and so if the price of one share falls while the price of another rise, the investor's portfolio will still be profitable. According to Ross et al. (2017), these risks originate from events, conditions, and significant changes that impact the entire market, such as wars, sudden external events, or changes to the political and economic system. Therefore, systemic risks affect business operations in all companies and are beyond the company's control Alzboon & Muhmad, (2021). In contrast, non-systemic risks result from factors specific to a specific company or sector and are independent of factors that affect general economic activity. These include administrative events, alterations in consumer preferences, and labor strikes Alzboon & Muhmad, (2021). These dangers affect one or a limited number of assets. The third form of risk is operational and financial leverage risks. They are sometimes referred to as unique risks or asset risks because they are unique to companies or assets Ross et al., (2013). Operating leverage is correlated with a company's cost structure or the proportion of fixed operating costs to total costs. Due to the persistence of high prices, operational leverage risks increase as operational leverage rises. These risks are referred to as "operational leverage risks" Maintain fixed assets without depletion, despite the company's low production levels, or not? A company's financial leverage increases in proportion to its use of debt financing relative to equity, and it is typically measured by the ratio of each debt to equity. The possibility of variation in shareholder returns increases with the company's use of financial leverage, referred to as "leverage risks" Hejab (2021).

3. Methodology

3.1 Applied study methodology and Tools.

This study addresses the problem and its solutions: objective testing of hypotheses, achievement of goals, presentation, and identification of goals, significance, the purported solution to the problem, and its application method.

3.1.1 The Importance of Studying

Examining and analyzing the literature on reporting on sustainability, market returns, and the cost of financing by shares demonstrates the theoretical significance of this study. Cost of equity financing.

3.1.2 The Study's Objective.

The objective of this study is to determine the extent to which banks listed on the Iraq Stock Exchange report on the dimensions of sustainability and to determine the significance of reporting on the dimensions of sustainability for the future of commercial banks (the study sample), as well as to determine the impact of reporting on the dimensions of sustainability on the market returns of the shares of the commercial banks (the study sample), to determine the extent to which the returns are affected.

3. 1. 3. The Study Problem.

Reporting on the dimensions of sustainability is one of the topics that has received significant attention in recent years due to its impact on the company's future market survival. Companies should pay particular attention to applying this reporting to the appropriate authorities to make rational investment decisions, and based on the antecedent, the study is centered on the following questions:

1. What is the extent to which banks listed on the Iraq Stock Exchange report on sustainability?
2. Does reporting significantly impact the dimensions of sustainability in the market returns of banks? It gives rise to the following sub-issues:
 - a. "Does reporting the economic dimension of sustainability significantly impact market returns?"
 - b. Does disclosing the environmental dimension of sustainability significantly impact market returns?"
 - c. Does disclosing the social dimension of sustainability significantly impact market returns?"
 - d. Does disclosing the governance dimension of sustainability significantly impact market returns?"
 - e. Does remote reporting significantly impact other public disclosures of sustainability in market returns?"

3.1.4. Study Hypotheses

Based on the queries posed in the study problems, the following hypotheses serve as the foundation for the current study:

The first primary hypothesis is: Iraqi banks require more reporting on their sustainability."

The second central hypothesis is that reporting has no significant effect on the dimensions of sustainability in market returns.

4. Results

4.1 Measuring Reporting on the Dimensions of Sustainability

The level of commitment of commercial banks (study sample) listed on the Iraq Stock Exchange to report on the dimensions of sustainability will be measured using the indicators (ESG) in the application of the Global Reporting Initiative's standards for the preparation of sustainability reports (GRI).

These standards have been issued by the Global Sustainability Standards Board (GSSB). The commitment of commercial banks (study sample) listed on the Iraq Stock

Exchange to report on the dimensions of sustainability was determined by measuring the extent of their commitment to reporting information related to the economic, social, environmental, governance, and other public disclosures separately during the study period and then calculating the general average of the axes for each bank to determine their level of commitment. The following equation clarifies the level of reporting by banks (study sample) on sustainability dimensions and how to calculate the percentage of reporting on any of the axes listed below:

(Reported on which requirements have been completed) / (Total conditions) 100% = the percentage of reporting on the axis.

a. Economic Axis

In this axis, the extent of the commitment of the commercial banks, the study sample, is measured by applying indicators of the economic dimension that relate to the economic impact of the company on external and internal stakeholders, as well as on economic systems at the local, national, and global levels. This axis demonstrates the flow of capital between the various stakeholders and the company's significant economic effects on society. This axis contains seven items, each including a set of indicators for fourteen. Each indicator includes a set of its reporting requirements, for a total of thirty-two requirements for all indicators of the economic axis, as shown in Appendix No. 1, which are used to measure the level of reporting information related to the economic performance of banks. The following constitute the study sample for the period (2016–2021):

Table 1: Percentages and a mean reporting level for the economic Axis of institutions (2016-2021).

No.	Bank name	2016	2017	2018	2019	2020	2021	The overall average for each bank
1	Iraqi Commercial Bank	31.25%	37.50%	40.63%	34.38%	40.63%	37.50%	36.98%
2	Baghdad Bank	31.25%	28.13%	34.38%	37.50%	40.63%	40.63%	35.42%
3	Iraqi Investment Bank	34.38%	31.25%	31.25%	37.50%	34.38%	37.50%	34.38%
4	Middle East Bank	34.38%	31.25%	28.13%	34.38%	37.50%	34.38%	33.34%
5	The National Bank of Iraq	31.25%	28.13%	31.25%	31.25%	34.38%	37.50%	32.29%
6	Gulf Commercial Bank	28.13%	31.25%	34.38%	31.25%	31.25%	34.38%	31.77%
7	Bank of Babylon	37.50%	34.38%	34.38%	31.25%	37.50%	40.63%	35.94%
8	Sumer Commercial Bank	31.25%	31.25%	28.13%	34.38%	37.50%	40.63%	33.86%

9	Mosul Bank for Development and Investment	31.25%	28.13%	31.25%	34.38%	37.50%	37.50%	33.34%
10	Ashur International Bank for Investment	31.25%	31.25%	34.38%	37.50%	34.38%	40.63%	34.90%
overall average		32.19%	31.25%	32.82%	34.38%	36.57%	38.13%	34.22%

We observe from the table above that the level of reporting information on the economic axis of banks (study sample) reached 34.22 percent, which is a low level when compared to the average level of reporting economic information, and this indicates poor reporting of economic information for banks (study sample) between 2016 and 2021.

b. The Environmental Axis

On this axis, the extent of the commitment of the commercial banks, the research sample, to the application of environmental dimension indicators, which are related to the impact of the company on natural resources, which include land, water, air, and environmental systems, and coverage of the effects related to inputs such as energy, water, and outputs such as gas emissions, global warming, liquid, and solid waste, etc. This axis contains eight items, each of which, in turn, corresponds to one of the eight environmental dimension indicators. Each indicator includes a set of reporting requirements, the sum of which is (91) requirements for all indicators of the environmental axis, as shown in Appendix No. (2), which is based on which the level of reporting information related to the environmental performance of banks is measured. The following constitutes the research sample for the period (2016–2021):

Table 2: Percentages and a mean reporting level for the environmental axis of institutions (2016-2021).

No.	Bank name	2016	2017	2018	2019	2020	2021	The overall average for each bank
1	Iraqi Commercial Bank	6.59%	7.69%	8.79%	7.69%	8.79%	7.69%	7.87%
2	Baghdad Bank	6.59%	8.79%	6.59%	6.59%	7.69%	8.79%	7.51%
3	Iraqi Investment Bank	6.59%	5.49%	6.59%	7.69%	8.79%	7.69%	7.14%
4	Middle East Bank	4.40%	6.59%	5.49%	7.69%	6.59%	7.69%	6.41%
5	The National Bank of Iraq	6.59%	5.49%	7.69%	6.59%	8.79%	8.79%	7.32%
6	Gulf Commercial Bank	5.49%	5.49%	6.59%	7.69%	8.79%	7.69%	6.96%
7	Bank of Babylon	5.49%	7.69%	6.59%	7.69%	7.69%	8.79%	7.32%
8	Sumer Commercial Bank	5.49%	7.69%	6.59%	6.59%	8.79%	8.79%	7.32%
9	Mosul Bank for Development and Investment	5.49%	6.59%	6.59%	7.69%	8.79%	7.69%	7.14%

10	Ashur International Bank for Investment	6.59%	6.59%	7.69%	6.59%	7.69%	8.79%	7.32%
overall average		5.93%	6.81%	6.92%	7.25%	8.24%	8.24%	7.23%

We observe from the table above that the level of reporting information on the environmental axis of banks has reached 7.23 percent, which is a fragile level when compared to the general average level of environmental information reporting; this indicates inadequate reporting of environmental information for banks during the study period.

c. Social Axis

On this axis, the commercial banks' commitment level, the study sample, to applying social dimension indicators will be measured; this pertains to the company's effect on the social systems in which it operates. It comprises a set of reporting requirements, the sum of which is seventy-two (72) requirements for all social axis indicators, as shown in Appendix No. 3, against which the level of reporting information regarding the social performance of banks is measured.

Table 3: Percentages and a mean reporting level for the social axis of institutions (2016-2021).

No.	Bank name	2016	2017	2018	2019	2020	2021	The overall average for each bank
1	Iraqi Commercial Bank	12.50%	13.89%	15.28%	18.06%	19.44%	18.06%	16.21%
2	Baghdad Bank	16.67%	15.28%	16.67%	18.06%	19.44%	19.44%	17.59%
3	Iraqi Investment Bank	15.28%	15.28%	16.67%	15.28%	18.06%	16.67%	16.21%
4	Middle East Bank	15.28%	13.89%	15.28%	16.67%	18.06%	18.06%	16.21%
5	The National Bank of Iraq	11.11%	13.89%	12.50%	13.89%	15.28%	15.28%	13.66%
6	Gulf Commercial Bank	15.28%	13.89%	15.28%	16.67%	16.67%	18.06%	15.98%
7	Bank of Babylon	13.89%	13.89%	12.50%	16.67%	16.67%	15.28%	14.82%
8	Sumer Commercial Bank	12.50%	13.89%	15.28%	15.28%	16.67%	16.67%	15.05%
9	Mosul Bank for Development and Investment	12.50%	13.89%	12.50%	16.67%	16.67%	15.28%	14.59%
10	Ashur International Bank for Investment	15.28%	16.67%	16.67%	15.28%	18.06%	18.06%	16.67%
overall average		14.03%	14.45%	14.86%	16.25%	17.50%	17.09%	15.70%

We observe from the table above that the level of reporting information on the social axis of banks reached 15.70%, a low level compared to the general average level of reporting on social information. This indicates that banks reported social information poorly during the search period.

d. Governance Axis

The commercial banks' commitment level, the research sample, will be measured on this axis to apply governance indicators. This is one of the standard disclosures made by all companies that prepare sustainability reports regarding forming a governance body and its delegation, responsible for making decisions and evaluating its performance and effectiveness in risk management to achieve its goals. It consists of 22 indicators; each indicator includes a set of its reporting requirements, with a total of 34 requirements for all governance indicators, as shown in Appendix No. 4; these requirements are used to measure the level of reporting information regarding the governance performance of the banks, the research sample, during the period (2016–2021).

Table 4: Percentages and a mean reporting level for the governance axis of institutions (2016-2021).

No.	Bank name	2016	2017	2018	2019	2020	2021	The overall average for each bank
1	Iraqi Commercial Bank	17.65%	20.59%	23.53%	29.41%	32.35%	29.41%	25.49%
2	Baghdad Bank	23.53%	20.59%	23.53%	29.41%	35.29%	35.29%	27.94%
3	Iraqi Investment Bank	20.59%	20.59%	23.53%	26.47%	26.47%	32.35%	25.00%
4	Middle East Bank	17.65%	17.65%	23.53%	26.47%	32.35%	32.35%	25.00%
5	The National Bank of Iraq	17.65%	20.59%	20.59%	23.53%	26.47%	26.47%	22.55%
6	Gulf Commercial Bank	23.53%	20.59%	26.47%	32.35%	35.29%	32.35%	28.43%
7	Bank of Babylon	14.71%	17.65%	17.65%	20.59%	23.53%	23.53%	19.61%
8	Sumer Commercial Bank	20.59%	20.59%	26.47%	29.41%	29.41%	29.41%	25.98%
9	Mosul Bank for Development and Investment	20.59%	20.59%	20.59%	29.41%	32.35%	32.35%	25.98%
10	Ashur International Bank for Investment	20.59%	17.65%	20.59%	23.53%	26.47%	32.35%	23.53%
overall average		19.71%	19.71%	22.65%	27.06%	30.00%	30.59%	24.95%

The table above shows that the percentage of banks reporting governance-related information has reached a precarious 24.95%. We can assess the reporting performance by extracting the general average level of reporting data related to governance performance.

e. Other public disclosures

Other general disclosures consist of five items, each containing 34 indicators and a set of reporting requirements for each indicator. As shown in Appendix No. 5, their sum is 43 requirements for all other public disclosure indicators, against which the level of reporting information related to other public disclosures by banks during the period (2016–2021) is measured.

Table 5: Percentages and a mean reporting level for the Other public disclosures of institutions (2016-2021).

No.	Bank name	2016	2017	2018	2019	2020	2021	The overall average for each bank
1	Iraqi Commercial Bank	41.86%	44.19%	44.19%	46.51%	48.84%	46.51%	45.35%
2	Baghdad Bank	39.53%	44.19%	41.86%	44.19%	46.51%	46.51%	43.80%
3	Iraqi Investment Bank	41.86%	39.53%	44.19%	44.19%	46.51%	48.84%	44.19%
4	Middle East Bank	41.86%	41.86%	39.53%	44.19%	46.51%	44.19%	43.02%
5	The National Bank of Iraq	41.86%	39.53%	41.86%	44.19%	44.19%	46.51%	43.02%
6	Gulf Commercial Bank	39.53%	39.53%	44.19%	41.86%	46.51%	46.51%	43.02%
7	Bank of Babylon	41.86%	44.19%	44.19%	48.84%	46.51%	48.84%	45.74%
8	Sumer Commercial Bank	41.86%	39.53%	44.19%	46.51%	44.19%	46.51%	43.80%
9	Mosul Bank for Development and Investment	39.53%	41.86%	44.19%	46.51%	46.51%	44.19%	43.80%
10	Ashur International Bank for Investment	41.86%	39.53%	39.53%	41.86%	44.19%	41.86%	41.47%
overall average		41.16%	41.39%	42.79%	44.89%	46.05%	46.05%	43.72%

The table above shows that the level of reporting information related to other public disclosures by banks reached 43.72 percent, a low level compared to the average level of reporting data related to other public disclosures. This indicates that banks reported inadequate information about other public disclosures during the research period.

4.2 Measurement of Market Returns of Stocks.

Stock returns will be measured at the level of each year of the research and for each of the banks in the research sample based on the annual opening and closing prices of the shares of the research sample banks according to the following equation: Al-Sharifi, (2019)

$$R_j = \frac{p_1 - p_0}{p_0}$$

whereas: -

R_j = earnings per share

P₁ = share price at the end of the period (closing price)

P₀ = share price at the beginning of the period (opening price)

The outcomes revealed the following analysis of the stock returns of the study sample institutions for the period 2016–2021:

a. The maximum value of stock returns for the Commercial Bank of Iraq was 0.171% in 2016, while the lowest value was 0.043 in 2020. The average value of stock returns was 0.083.

b. The maximum value of stock returns for the Bank of Baghdad occurred in 2021 when it was 1.512; the lowest value occurred in 2018 when it was 0.525; and the average value of stock returns was 0.139. The highest value of stock returns for the Iraqi Investment Bank was 0.304 in 2021, while the lowest value was 0.333 in 2018, with an average of 0.105.

c. The maximum value of stock returns for the Iraqi Middle East Bank was achieved in 2021 at 0.667, while the lowest value was achieved in 2018 at 0.629, and the average return reached 0.056.

b. The maximum value of stock returns for the National Bank of Iraq occurred in 2019, reaching 0.794%.

e. The lowest value of stock returns for the National Bank of Iraq occurred in 2018 when it reached 0.277. The average value of stock returns for the bank was 0.209%.

f. The highest value of stock returns for Khaleeji Commercial Bank occurred in 2021 when it reached 0.071; the lowest value of stock returns for the bank occurred in 2018 when it reached 0.513; and the average value of stock returns was 0.159.

g. The highest value of stock returns for the Bank of Babel occurred in 2021, when it was 0.429, while the lowest value occurred in 2019, when it was 0.421.

h. The average value of stock returns was 0.113. The values of stock returns for the Sumer Commercial Bank during the research period ranged between zero and negative values, as the value of stock returns for the bank during the years 2017 and 2018, respectively, was zero, while negative values for stock returns were achieved during the other years, and the average stock returns reached -0.125.

i. The highest value of stock returns for the Mosul Bank for Development and Investment was 1.240 in 2016, while the lowest value was 0.500 in 2018.

j. The average value of stock returns was 0.046. The maximum value of stock returns for the Ashur International Bank was achieved in 2021 when it reached 0.571; the lowest value of stock returns for the bank was in 2018 when it reached 0.233; and the average value of stock returns was 0.037.

4.3 . Test the Normal Distribution of the data.

The normal distribution of the data of the study variables was tested using the One-Sample Kolmogorov-Smirnov test, and the results were as follows:

Table 6: Test the normal distribution of the data.

One-Sample Kolmogorov-Smirnov Test									
		COE	RM	Sus-R	Eco-R	Env-R	Soc-R	Gov-R	Gen-R
N		60	60	60	60	60	60	60	60
Normal Parameters ^{a,b}	Mean	2.49450	-.00450	.25160	.34235	.07242	.15715	.24953	.43723
	Std. Deviation	11.08341	.23862	.02443	.03690	.01132	.01941	.05472	.02731
Most Extreme	Absolute	.319	.256	.117	.187	.190	.149	.170	.169
	Positive	.319	.256	.117	.187	.181	.135	.170	.148

Differences	Negative	-.255	-.135	-.082	-.145	-.190	-.149	-.113	-.169
Test Statistic		.319	.256	.117	.187	.190	.149	.170	.169
Asymp. Sig. (2-tailed)		.000	.000	.040	.000	.000	.002	.000	.000

Although the results indicate that the significance of (Sig) for all variables is less than 0.05, which initially indicates that its data are not close to the normal distribution, it is based on the theory that if the sample size is greater than 30 observations, then it is normally distributed and suitable for statistical analysis. It was deemed that the data met the routine distribution test because the sample size was 60 observations. Sekaran & Bougie (2013).

4.3 Test the Study Hypotheses.

The first hypothesis will be examined using statistical analysis and a T-test on a single sample. The purpose of this test is to determine whether there is a statistically significant difference between the mean of the population from which the sample was drawn and a constant value, with the possibility of estimating the confidence interval for the population mean; a value of 0.25 (representing the limit) will be used. Using (the difference between inadequate reporting about sustainability and very weak reporting about it) as a test value to conduct a T-test analysis using the SPSS program, the following results were obtained:

Table 7: Results of the first hypothesis test

One-Sample Statistics						
	N	Mean	Std. Deviation	Std. Error Mean		
	60	.25160	.024431	.003154		
Test Value = 0.25						
Sus-R	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
	.507	59	.614	.001600	-.00471	.00791

The preceding table demonstrates that the calculated value of T was 0.507, significantly less than its tabular value at 59 (n-1) degrees of freedom, 1.671 and that the Standard Error of the Mean (SEM) was used to calculate T. The error mean reached 0.003154, a deficient value, as this error should be as small as possible. The table also shows the level of significance of the test sig. (2-tailed) amounted to 0.614, which is greater than the accepted error level in the social sciences, which is predetermined by 0.05, and this indicates that the sample data provided convincing evidence for rejecting the research hypothesis, and this means that the level of reporting on sustainability was between weak and very weak. It is impossible to generalize either to the entire sample size.

To test the second hypothesis, the following model of "linear regression" was developed:

$$RM_{it} = b_0 + b_1 \text{Sus} - R_{it} + \varepsilon_{it}$$

whereas: -

, b_0 = the constant in the regression equation that represents the dependent variable's value when the independent variable's value is zero.

slope, used to assess the type and amount of impact.

ε_{it} = estimation errors, also known as statistical residuals.

Moreover, using the SPSS statistical program, the following results were obtained:

Table 8: Results of the second hypothesis test

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.555 ^a	.308	.296	.838840
a. Predictors: (Constant), Sus-R				
b. Dependent Variable: RM				

Samp, The correlation R-value between the variables, was 0.555, and the R square value was 0.308, indicating that the independent variable (reporting on sustainability) explains 30.8% of the variation in the market return and that the standard deviation of the market return can be explained by Std. The estimation error was 0.838840; statistically, the lower this error, the better. The conclusion of the second primary hypothesis test summary.

Table 9: Variation test of the second hypothesis

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.188	1	18.188	25.848	.000
	Residual	40.812	58	.704		
	Total	59.000	59			

The table above demonstrates that the calculated value of F for the ANOVA was greater than its tabular value computed based on the degrees of freedom df (58.1) and was 4.0 at the 5% significance level. The significance level of the Sig test was 0.000, which is less than the permissible error value in the social sciences. It is predetermined to be 0.05, which indicates that the statistical model employed to test the hypothesis is appropriate.

Table 10: The coefficients of regression for the second hypothesis

Model		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.584E-16	.108		.000	1.000
	Sus-R	.555	.109	.555	5.084	.000

a. Dependent Variable: RM

The value of the slope of the regression equation for the independent variable (reporting sustainability) was 0.555, which demonstrates the effect of the independent variable on the dependent variable (by coefficient B) as shown in the table above. The positive value of the coefficient indicates that there is a direct relationship between the dependent and independent variables, or that a one-degree increase in the independent variable (reporting sustainability) results in a 55.5% increase in the dependent variable (market return), all other variables being held constant beyond the scope of this study. The significant Sig statistic of T for the Sus-R variable reached 0.000, which is considerably less than the threshold of 0.05. The value of the accepted error in the social sciences is 0.05, which indicates that the sample data provided sufficient evidence to reject the null research hypothesis and accept the alternative research hypothesis in order to statistically demonstrate the effect.

The following figure confirms the relationship between the two variables through the shape of the spread, as the upward trend of the curve indicates a positive relationship between the two variables.

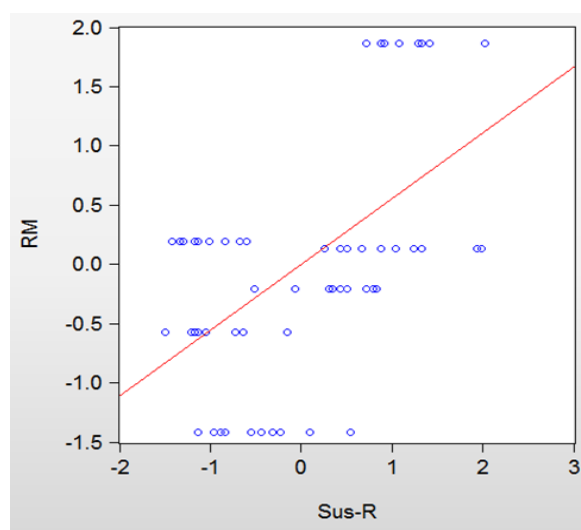


Figure 4: Trend of the relationship between sustainability reporting and market return

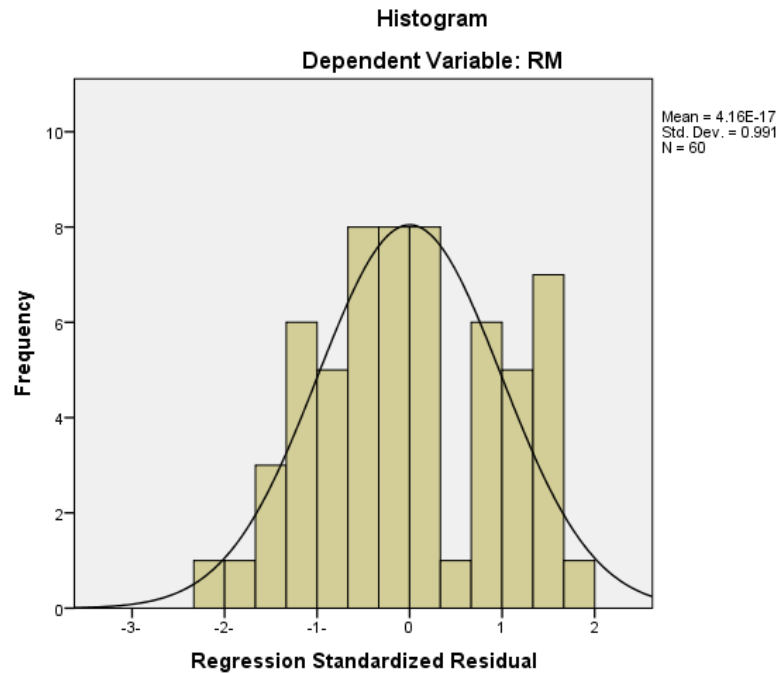


Figure 5: Histograms of the residuals of the second hypothesis

5. Conclusion

In light of what was discussed in the content of this study's literature, applied and analytical aspects, it was determined that banks' reporting on their performance in the economic, social, environmental, and governance fields plays a significant role in forming a positive image of the bank, its performance, and its future directions, strengthens its competitive position, and inspires investor and owner confidence. In addition to not harming the environment by minimizing the environmental impacts of the bank's operations and activities, it helps to demonstrate the bank's correct position and its interest in preserving resources and using them in an optimal manner that ensures their continuity and development to meet the needs of future generations.

The Global Reporting Initiative (GRI) encourages businesses worldwide to report on sustainability in all of its economic, social, environmental, and governance dimensions to ensure transparency and accountability as well as consistent, reliable, and comparable reports. In accordance with the standards and indicators of the Global Reporting Initiative (GRI), 34.22% of the research sample during the period (2016-2021) reported information related to the economic axis of the banks, while the average level of reporting information related to the environmental axis was 7.23%. The average level of reporting for information related to the social axis was 15.70%, In comparison . the average level of reporting for information related to the governance axis was 24.95%, reporting information related to the economic, social, environmental, governance, and other types of public disclosures, respectively.

By measuring the commitment of commercial banks (the research sample) listed on the Iraq Stock Exchange to report on the dimensions of sustainability according to the indicators (ESG) of the Global Reporting Initiative (GRI) standards, we note the variation in the commitment of the banks of the research sample to report on the dimensions of sustainability

due to the voluntary nature of sustainability reporting in Iraq and the absence of a legal framework to regulate it.

There is a fluctuation in the stock returns from year to year for the study sample institutions, indicating fluctuations in stock prices during the period. Changes in supply and demand for bank shares in the financial market are attributed to various economic, social, and political factors and differences in investors' preferences and inclinations to invest in bank shares. Reporting on the dimensions of sustainability had a significant impact on market returns, as this is the market's natural response. In addition, it did not influence the cost of financing by shares because it is expected in shares, representing the return expected when investing in shares despite its difficulty to measure.

By testing research hypotheses, it was determined that the level of reporting on sustainability in banks (the research sample) listed on the Iraq Stock Exchange during the research period was between weak and very weak and that reporting had a direct and significant effect on the dimensions of sustainability (economic, social, environmental, governance, and public disclosures). other) in the market returns of the sample banks in the study.

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