Article

The Impact of Sustainability Reporting on the Earnings Response Coefficient of the Iraqi-Listed Companies

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Abstract: This study examines the impact of sustainability reporting on the Earnings Response Coefficient (ERC) of companies listed on the Iraq Stock Exchange. The ERC reflects the effect of unexpected earnings on stock returns, and sustainability reporting is expected to enhance company legitimacy and trust, potentially increasing the ERC. Despite the growing importance of sustainability practices, there is limited research on their influence on the ERC in emerging markets like Iraq. Using data from 33 firms from 2012-2022 and employing multiple linear regression with panel data analysis, the results indicate that Iraqi companies experience only slight improvements in ERC through sustainability reporting. These findings suggest that sustainability reporting can enhance a company's reputation and legitimacy, contributing to increased ERC. The study highlights the need for policymakers to strengthen sustainability reporting requirements and provides insights for investors seeking to optimize portfolios based on corporate sustainability compliance.

Keywords: Sustainability Reporting (SR), Earnings Response Coefficient (ERC), Iraqi listed companies.

1. Introduction

Sustainable development departments in organizations work on the integrated management of social, economic, and environmental performance in order to classify risks and opportunities that affect the achievement of their goals [1]. Organizations aim to raise competitiveness and performance, and sustainable development is a priority to reduce costs, provide alternatives, including innovation, and maintain business continuity and competitiveness [2]. Sustainability reports enhance the efficiency of operational performance, achieve workforce satisfaction, and enhance the organization's reputation and brand [3].

Detailed information from the sustainability reports that firms publish on a regular basis is necessary for measuring the level of sustainability. Management is under increased pressure to adhere to governance and regulatory requirements as a result of this necessity [4]. Companies start following (SR) due to their obligations towards society, the environment, and their own development [5].

Review of literature showed that there are several theory in accounting which support sustainable performance and sustainability reporting of companies. stakeholder theory offer explanations for corporate engagement in sustainability reporting.stakeholder theory emphasizes satisfying stakeholder demands for transparency and accountability [6].

Moreover, sustainability reporting influences market behavior, including financial and capital markets [7]. Consequently, the positive reputation and credibility derived from such reporting are expected to enhance financial accessibility and increase the Earnings Response Coefficient for these companies.

In spite of Extensive literature that explores the implications of sustainability reporting [8], in developed economies, there are limited research in emerging markets like Iraq. Hence, this study aims to investigate the impact of sustainability reporting on the Earnings Response Coefficient for firms listed on the Iraq Stock Exchange.

Given the limited financial sourcing methods and increase Earnings Response Coefficient in Iraqi firms, coupled with the nascent adoption of sustainability reporting among Iraqi listed companies, motivate us for these study, also we expects this research has significant relevance and potential impacts our society and also help to development of Appling sustainability reporting in practice .

Furthermore, we expect sustainability reporting not only enhances company performance but also contributes to environmental sustainability at corporate and national levels. Finally we expects Effective reporting can bolster corporate reputation, and by fostering stakeholder trust. Increase Earnings Response Coefficient of companies.

So our main question is that, what is the effects of applying of sustainability report on the Earnings Response Coefficient companies. For these purpose we used a multiple regression that by these we measure the effects of sustainability reporting of companies on the Earnings Response Coefficient of companies. Although we control some of the companies characteristics factors that they potentially effects on Earnings Response Coefficient companies [9].

Our finding show that there is a significant effects of sustainability reporting on the Earnings Response Coefficient of Iraqi listed companies. These result can help investors in selecting an optimal portfolio, also help to policy maker in the evaluation of their policy, and promote name of companies and their reputation in subsequent and future financing.

The rest of article is structured as follows: Initially, the theoretical foundations and research background are discussed, followed by the statement of hypotheses, research methodology, findings, and discussion, and finally, conclusions are presented.

Hypothesis Development:

This study draws on Stakeholder Theory to understand the motivations and impacts of sustainability reporting

Stakeholder Theory suggests that firms may cultivate a robust connection with stakeholders by successfully attaining their goals. This connection can enhance the company's reputation and provide favorable effects on its overall performance. Meeting the expectations and requirements of stakeholders results in achievement a reasonable edge and ensuring long-standing viability [10].

Research Background:

There are several research that support these theoretical background. For instance, Ramos et al. (2013):We examine Corporate (SR) and the Relations with Evaluation and Management Frameworks: the Portuguese Case" The variables of the study were Disclosure of sustainability reports environment , company size , environmental performance assessment , the application of the environmental management system.

pérez-López et al. (2015): This study examines Exploring the Relationship between (SR) and Sustainability Management Practices. The study variables were external and internal management strategies, sustainability reports. The results of the study were the influence of factors related to management strategy on sustainability reports in Spain.

Damen et al.(2016) : This study focuses on Quality of assurance on sustainability reports a study on determinants of the quality of external sustainability assurance.

Boonnual et al (2017): This study examine Corporate Social Responsibility and Firm Performance in Thailand.The study variables consisted of six variables related to social sustainability reports (customers, environment, society, employees, investors, suppliers)

as well as the performance of the economic unit, which was measured by return on investment.

Study Al-Obaidi (2018): This study deals with Evaluating reporting on the sustainability of industrial companies according to GRI" This research aims to add objectivity and thought to the topic of sustainability, in addition to the intellectual framing. The accompanying topic of sustainability is the evaluation of reporting. Also, evaluating the reporting of a sample of Iraqi industrial companies listed on the market. Iraq Securities, based on sustainability indicators in all its aspects (social, economic, environmental, financial, governance).

However, research specific to emerging markets, particularly Iraq, remains limited. Therefore, this study hypothesizes that sustainability reporting significantly impacts the Earning Response Coefficient for Iraqi listed companies.

Hypothesis:

"Sustainability reporting impacts the Earning Response Coefficient of Iraqi listed companies."

Furthermore, reporting on companies' environment, social, financial risks and opportunities can influence stakeholder expectations, enhancing trust and potentially increase Earning Response Coefficient. This conceptual framework guides our hypotheses development and we can depict these relationship as follow:
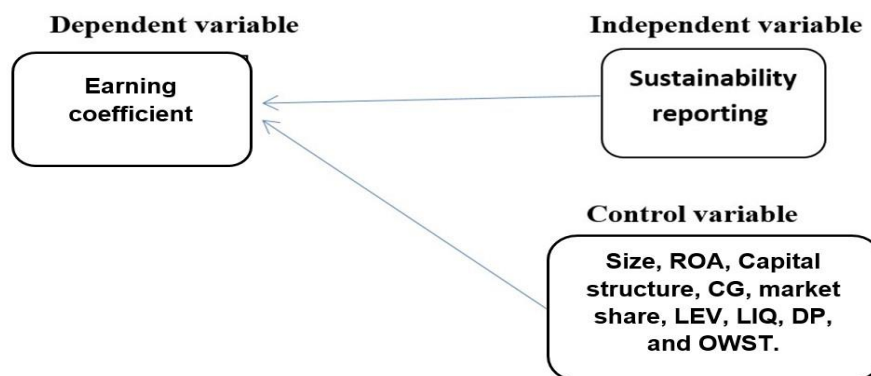
Figure 1. Research theoretical framework

Source: By researcher

Therefore, the aim of this research is to examine and quantify the impact of sustainability reporting, which was previously classed as independent variable, on the Earning Response Coefficient .This study specifically employed Size, Rao, Capital Structure, Cg, Market share, Lev, Dp, Liq, And Owst as control variables. In order to identify and analyses the elements that influence and enhance (SR) in the Iraqi listed companies.

2. Materials and Methods

This research is considered as an applied research in terms of purpose and based on the type of data is descriptive also it work with archival data. The research population consists of a listed companies that they have some qualification:
1. Companies must be active on the Iraqi Stock Exchange between 2012 and 2022.
2. Financial companies, banks, financial institutions and holdings are not considered as statistical samples due to their nature.
3. Companies must be listed on the Iraqi Stock Exchange before 2012.

Empirical Models: For testing of hypothesis, we have used these empirical models:

$$Earning\ Response\ Coefficient\ _{it}$$
$$= \beta_0 + \beta_1 SR_{it} + \beta_2 size_{it} + \beta_3 ROA_{it} + \beta_4 CSTRUC_{it} + \beta_5 CG_{it}$$
$$+ \beta_6 MSHAREE_{it} + \beta_7 LEV_{it} + \beta_8 LIQ_{it} + \beta_9 DP_{it} + \beta_{10} OWST_{it} + \varepsilon_{it}$$

Which Variables are:

Dependent Variable: Earning response coefficient (ERC)
Earning response coefficient = the estimated relationship between equity returns and the unexpected portion of companies' earnings**.**

Independent Variable:
Sustainability Reporting (SR) Score:
It is a independent variable that is affected by the independent and control variables that are under the control of the researcher. It is calculated based on checklist by content analyses based on (GRI) standard checklist.

Control Variables:
Size: company size means the natural logarithm of total sales at the end of the year.
Lev: total debt ÷ total equity
Roa: Income before tax ÷ Total assets
Capital Structure: debt to equity ratio
Cg: calculates according to checklist.
Market share: Company Sales ÷ Total Market Sales
Dp: cost of an asset – residual value ÷ useful life of an asset
Liq: current assets ÷ current liabilities
Owst**:** percentage of stockholders according to kind of shareholders

3. Results and Discussion
Descriptive statistics of research variables:

In order to extract and swiftly summarize hidden information from a set of statistical data, the first step in managing the data is to classify, describe, and analyze the data. Table 4 displays descriptive statistics (mean, median, standard deviation, maximum, and lowest) gathered from the study. the Earning response coefficient, whose mean and median are near to one another and indicate that, on average, 4% of businesses pay Earning coefficient [11].

The independent variable of the research is the sustainability of the company, which was obtained by the method of content analysis. For the highest value, the number is 12.789 and the lowest is 1.064. The control variable of company size has a mean of 22.349 and a median of 22.290, which shows that the numbers are close to each other [12].

Table 1. Descriptive statistics of research variables

Variable		*average*	*mediam*	*Std*	*min*	*Max*
ERC	Dependent	0/049	0/013	0/528	-420/2	2/475
SRS	In Dependent	5/101	4/602	2/335	1/063	12/789
ROA	controls	0/064	0/021	0/040	-0/793	0/826
Capital structure	controls	0/847	0/274	1/760	-4/459	9/973
Size	controls	22/349	22/290	1/427	18/681	26/895
market share	controls	0/134	0/127	0/064	0/012	0/348

CG[1]	controls	0/374	0/375	0/063	0/000	0/875
LEV	controls	0/301	0/217	0/630	0/019	1/785
LIQ	controls	2/315	1/976	0/040	0/044	6/945
OW-STRUC	controls	0/367	0/381	0/103	0/087	0/871
D-P[2]	controls	2/793	2/000	1/817	1/000	7/000

Inferential statistics:

Analytical methods use data from a sample to draw conclusions about the larger population are referred to as inferential statistics. Deriving conclusions about social features from data gathered from a sample is the main goal of statistical analysis. Not all statistical problems end at the descriptive statistics stage; most involve drawing conclusions about the unique characteristics of a society from data obtained from "a representative sample" [13].

"Pearson correlation coefficient matrix in Iraq":

Table 2. The correlation matrix between the research variables was computed and displayed

	EC	SRS	Size	ROA	CS	CG	MS	LEV	LIQ	DP	OWST
EC	1.000										
SRS	0.607	1.000									
size	0.013	0.0031	1.000								
ROA	-0.026	0.0009	0.043	1.000							
CS	-0.017	0.042	0.046	0.113	1.000						
CG	-0.067	0.081	0.021	0.108	0.309	1.000					
MS	0.087	-0.018	0.206	0.147	0.126	0.013	1.000				
LEV	0.164	0.018	0.011	0.015	0.017	0.038	0.0104	1.000			
LIQ	-0.115	-0.120	0.0208	0.0009	0.034	0.058	0.067	0.078	1.000		
OWST	-0.112	-0.059	0.043	0.046	0.067	0.038	0.0106	0.197	0.187	1.000	
DP	0.060	0.013	0.098	0.045	0.058	0.078	0.088	0.034	0.034	0.024	1.000

Significance at the 99% level **: significance at the 95% level   ***
"Source: Conducted by a researcher utilizing Eviews software"

"Table 2 presents results indicating a direct and significant correlation coefficient of 0.607 between the SRS (independent variable) and EC (dependent variable) in Iraq. This indicates a direct correlation between the two variables".

Test of the hypothesis:

The results of the F-test of Limer, Hausman and Durbin-Watson of the first hypothesis are presented in Tables follows:

Table 3. Limmer, Hausman and Durbin-Watson F test of the THIRD hypothesis

Country			Iraq
Test	Number of years – firm	Chi-statstic	Pvalue
Flimer	363	3/339	0/000
Hasman	363	11/433	0/022
Durbin-watson	363	1/649	-

"Source: Conducted by a researcher utilizing Eviews software"

According to the findings shown in Table 2, "Limer's F test and its significance level in Iraq (0.000) are both lower than 0.05, which implies that the panel data technique was utilised rather than the consolidated data approach". In addition, the Hausman test demonstrates that the fixed effect technique is superior to the random effect method in terms of effectiveness. As a consequence of this, the fixed effect panel data approach has been utilised in order to examine the second hypothesis that stems from the study conducted in Iraq. " The Durbin-Watson test results for Iraq indicate a significance level of 1.644, demonstrating the absence of serial autocorrelation among the disturbance components of the model. The results of the variance inflation (collinearity) and F-statistics are summarized in Table 4, presented in the following order."

$$EC_{i,t} = b_0 + b_1 SRS_{i,t} + b_2 size_{i,t} + b_3 Roa_{i,t} + b_4 Capital\ structure_{i,t} + b_5 CG_{i,t} + b_6 market\ share_{i,t} + b_7 Lev_{i,t} + b_8 Liq_{i,t} + b_9 DP_{i,t} + b_{10} OWST_{i,t} + \varepsilon_{i,t}$$

Table 4. Outcomes of the third hypothesis fitting process: The estimation outcomes of the regression model pertaining to the third hypothesis

Variable		$cofficent$	STD	$Tstatistic$	P-value	VIF
β		0/133	0/081	1/637	0/102	-
SRS	In Dependent	-0/044	0/003	-14/699	0/000	1/33
ROA	Controls	-0/019	0/044	-0/430	0/666	1/57
$Capital\ structure$	Controls	-0/006	0/005	-1/019	0/308	1/89
Size	Controls	0/005	0/007	0/731	0/464	1/27
$market\ share$	Controls	0/358	0/172	2/078	0/038	1/26
CG[1]	Controls	-0/005	0/005	-0/697	0/485	1/33
LEV	Controls	0/020	0/037	0/548	0/584	1/29
LIQ	Controls	-0/009	0/006	-1/496	0/135	1/78
OW-ST	Controls	0/043	0/049	0/877	0/380	1/91
D-P	Controls	-0/007	0/005	-1/287	0/198	1/34
Adjusted R	0/28	F		(0/000) 15/21		
Observation	363	"Durbin- Watson"		1/55		

"*** Significance at 1% level * * Significance at 5% level * Significance at 10% level"
"Source: Conducted by a researcher utilizing Eviews software"

Table 4 displays the findings that were obtained by fitting the second hypothesis in Iraq. Presented below are the findings that were obtained by fitting the first hypothesis in Iraq. " The coefficients of 0/076 clearly demonstrate a direct and substantial relationship between the EC (dependent variable) and the SRS (independent variable) in Iraq. Consequently, the initial hypothesis of the Iraqi research is accepted with a degree of confidence of 40%, with the independent variables of the model accounting for 40% of the variations in the dependent variable. Additionally, the variance inflation statistic values (variance inflation < 5) suggest that the independent variables of the research do not exhibit linearity."

"Synopsis of the findings of the research hypotheses":

Table 4. Summary of research results

"Research hypothesis"	"Cofficent"	"Cofficent"	"Research hypothesis"
(SR) effects on the on (ERC)	0/076	0/000	Accept

"Source: Conducted by a researcher utilizing Eviews software"
" The results of the research hypotheses generally suggest that Iraqi firms experience MINOR levels of (ECR) as a result of the adoption of (SR)".

4. Conclusion

Achieving sustainability in companies has witnessed great development because of its great importance in attracting investment and capital because of the safe environment it provides that contributes to improving confidence in the financial statements in Iraqi securities companies. The company's adoption of sustainability accounting standards provides opportunities for the company to mitigate risks and enhance investor confidence in corporate activities. Through the information available in the reports of firms in Iraqi Stock Exchange (research sample) for period (2012-2022), we conclude that Iraqi firms experience minor levels through the adoption of (SR) and Increase (ERC).

Suggestions

Establishing an accounting regulatory framework that makes corporations compelled to report on sustainability in line with the criteria of the Global Reporting Initiative (GRI) is the first step in addressing the necessity of the Iraqi Stock Exchange to pay attention to the sustainability of enterprises. Attention, awareness and education must be paid to disseminating sustainability accounting standards and the need for companies to commit to applying them by making special laws and legislation obligating their application.Obligating companies through issuing laws and legislation issued by government bodies and institutions And independent research to clarify the importance of the benefits and advantages enjoyed by sustainable companies

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