

Sustainability Practices Disclosure and Value Relevance: Evidence from Jordan

Omar M. F. Zraqat¹

¹Department of Accounting, The World Islamic Science & Education University, Amman, Jordan

Correspondence: Omar M. F. Zraqat, Assistant Professor, Department of Accounting, The World Islamic Science & Education University, Amman, Jordan. E-mail: omarmfz@hotmail.com

Received: July 30, 2019

Accepted: August 22, 2019

Online Published: August 23, 2019

doi:10.5539/mas.v13n9p75

URL: <https://doi.org/10.5539/mas.v13n9p75>

Abstract

This study aimed at identifying the level of the sustainability practices disclosure of Jordanian commercial banks listed on the Amman Stock Exchange, as well as explore the value relevance of sustainability practices disclosure and verify its role in shares prices and market returns of Jordanian commercial banks listed on the Amman Stock Exchange. This study proposes to present the diverse instrument's measurement of the variables proposed by the literature. In the Price and Return models, stock prices and stock returns are considered as the dependent variables in order to measure value relevance, while the level of the independent variable is sustainability practices disclosure. Data were collected from the annual reports of the banks included in the study sample during the period from 2008 to 2018.

The results indicate that there is a wide gap between Jordanian banks in the level of disclosure of sustainability practices. The results of the valuation analysis revealed that investors positively appreciate the disclosure of the sustainability practices of Jordanian commercial banks listed on the ASE. The results of the analysis revealed that the explanatory power of all models of the study increases significantly when the variable related to the level of disclosure of sustainability practices is included in the model.

Keywords: sustainability, sustainability practices disclosure, value relevance, shares prices, market returns, Jordanian Commercial Banks

1. Introduction

1.1 Study Background

Companies are increasingly concerned about their responsibilities to society and the environment in which they operate because of global changes, as the pressures that companies face from consumers and society drive them to adopt sustainable business strategies (Li et al., 2019). This has led companies to increase the scope of sustainability practices disclosure in many countries around the world tremendously, as companies began to issue independent sustainability reports from their annual report (Mohammadi et al., 2018). When the concept of sustainability is applied to banks it implies the incorporation of the objectives of social equality, economic efficiency, and environmental performance into the banks operating practices (Miralles-Quirós et al., 2018).

Corporate disclosures about sustainability practices for companies are consistent with the interests of various parties including investors, managers, employees, clients, regulators, and government (Clarkson et al., 2013). In 2000, a joint reporting framework on sustainability was developed by the Global Reporting Initiative (GRI) in the Netherlands, where it included the Sustainability Reporting Guide, which consists of reporting principles and specific content indicators. In 2006, GRI released a new version of the sustainability reporting guide called G3 (third generation) and the latest is the fourth generation that has been effectively implemented since the beginning of 2015. In line with this, the studies provide evidence of the increasing importance of sustainability practices disclosure (Li et al., 2019). By implementing the GRI guidelines, companies show a strong commitment to continuously improve their disclosures about sustainability practices. These developments about the disclosure of sustainability practices make it necessary to examine their implications as to the value that they can add to the company.

1.2 Study Problem

Contemporary debate on sustainable enterprise development has raised awareness of sustainability practices. This poses emerging challenges for companies to do their business in a more ethical and responsible manner. At the same time, successful disclosure of corporate efforts with regard to corporate sustainability practices to stakeholders is another challenge for managers (Qiu et al., 2016). As the disclosure requires companies to make great efforts and high costs (García-Sánchez et al., 2019). This is accompanied by uncertainty by companies and management as to whether the reports meet the objectives required by the stakeholders and meet their requirements, and provide useful rules for investment decisions, which must have a bearing on the market value and stock returns of the company (Brooks & Oikonomou, 2018).

Despite the great scientific interest in the issue of value-relevance in various areas of business research, the results are still inconclusive, the empirical literature did not reach to achieve consensus on the economic consequences of disclosure of sustainability practices (Baboukardos, 2018). Several studies have indicated that more empirical studies should be conducted on the value of disclosure of sustainability practices, both for the company and for stakeholders (Clarkson et al., 2013).

The laws and regulations did not oblige Jordanian companies to disclose sustainability practices. Therefore, all corporate sustainability reports are voluntary disclosures by companies based on their strategic orientations, their understanding of the importance of sustainability reports, and the level of disclosure of sustainability practices among Jordanian companies in general, and in banks. In particular, this study conducted to identify the value relevance of sustainability disclosure practices in Jordanian commercial banks

1.3 Study Objectives

The objective of this study is to identify the level of sustainability practices disclosure of Jordanian commercial banks listed on the Amman Stock Exchange, as well as to:

1. Explore the value relevance of sustainability disclosure and verify its role for different stakeholders.
2. Identify the impact of disclosure of sustainability practices on the shares prices of Jordanian commercial banks listed on the Amman Stock Exchange.
3. Identify the impact of disclosure of sustainability practices on the market returns of Jordanian commercial banks listed on the Amman Stock Exchange.
4. Provide a set of recommendations that can contribute to enhancing corporate practices in relation to the disclosure of sustainability practices

1.4 Study Importance

The theoretical importance of this study is highlighted in its support for theoretical studies and research on the importance of the level of disclosure of sustainability practices in Jordanian commercial banks and their role in enhancing value for different stakeholders.

The importance of this applied study stems from the importance of disclosing the sustainability practices of the various stakeholders' bodies, as well as the importance of the Jordanian banking sector. , And conducting such a pilot study is critical to improving the current understanding of market reactions to the disclosure of sustainability practices in Jordanian commercial banks, where different stakeholders such as the state and investors in the market Securities great interest in strengthening the role of companies in sustainable development and improving corporate transparency.

2. Theoretical Background & Experimental Studies

2.1 Theoretical Background

Increasing corporate disclosure of information, including sustainability information, enables stakeholders to collect information about the company easily and at a lower cost, increasing their ability to predict the future income of the company, which will be reflected in market share prices (Song, 2015). There are many theories and assumptions that explain the level of disclosure of information on sustainability practices with investor behavior and market reactions to this information.

Under the efficient market hypothesis, optional disclosures, including disclosure of sustainability practices, affect equity prices equally for all market participants (Kim et al., 2014). Hence, it can be assumed that disclosure of sustainability practices will be valuable to stakeholders and will affect stock prices and directly reflect on market share prices and returns (Aerts et al., 2008). The random walk theory assumes that prices

change and move randomly, depending on new market information (Didar et al., 2018). Therefore, the volatility of stock prices will reflect both previous information and any future market events, so disclosure of sustainability information will be closely related to adding value to investors as it will increase the ability of investors in financial markets to predict future events. Thus, an increase in the level of voluntary disclosure will increase equity price volatility and affect market returns. The Signaling theory emphasizes the importance of the information that companies disclose in the investment decisions of the external parties of the company (Elfeky & Nasiri, 2017). The Signaling theory assumes that information is inconsistent between the management of the company and the external parties that are interested in the information (Ratnatunga & Alam 2011). The information disclosed, including sustainability practices, and current and future, and helps them in the process of investment decision-making (Agle et al., 2008). This theory suggests that companies aim to refer to the quality and real value of companies by providing more information to parties that lack information by increasing the level of disclosure they provide to different stakeholders (Healy & Palepu, 2001).

Increased corporate disclosure also provides a signal that helps financial analysts predict corporate earnings, assess their performance, and provide financial market customers with reports about corporate quality and value (Lang et al., 2004), Hamrouni et al. (2015) argues that the increased circulation of information about companies in the media and financial analysts' reports increases the level of trading of shares in the financial markets, which has an impact on the stock market return.

According to the agency theory, the asymmetry of information between management and managers increases agency costs. In this case, disclosure of sustainability practices is one way to ensure that agency problems are minimized and costs are minimized (Jo & Harjoto, 2014). Owners therefore seek to increase the level of disclosure of sustainability practices to protect their interests and maximizing their wealth. (Freeman, 1984) Managers are also motivated to provide more reliable information and to increase the level of disclosure of sustainability practices given the fact that organizations are constantly seeking additional funds from capital markets at the lowest possible cost. Improving the level of disclosure of sustainability practices helps to reduce the cost of the company's capital in order to obtain financing, which is reflected in the performance of the company and the market returns of its shares (García-Sánchez et al., 2019).

According to the legitimacy theory, there is a general perception or assumption that the actions of any entity are desirable, valid or appropriate under a system of rules and values based on social (Suchman, 1995). It, therefore, focuses on the relationship between the company and its operating environment and recognizes groups of stakeholders at the conceptual level (Ioannou & Serafeim, 2015). According to the legitimacy theory, stakeholders assess companies based on their perceptions of their values and organizational value, and that the survival of the organization will be threatened if society realizes that the organization has violated its social contract (Luo et al., 2015). The legitimacy theory has been widely used in relation to social, economic and environmental disclosures (García-Sánchez et al., 2019), indicating that companies do not work for the benefit of their investors only, but must ensure that their actions do not adversely affect the environment in which they operate and thus avoid pollution and other illegal activities (Oliveira et al., 2013). Therefore, the disclosure of sustainability practices is a means by which management can influence the perceptions of society in the environment in which it operates, increasing the acceptance of the community, thus improving its financial performance and increasing the liquidity of its shares, which will positively affect its market returns.

Stakeholder theory is closely linked to the legitimacy theory, where stakeholder's actions are expected to affect the company's ability to successfully implement its strategies and achieve its objectives, Examples of primary stakeholders include shareholders, creditors, employees, customers, suppliers, and regulators (Freeman, 1984). Stakeholder theory suggests that companies are not only responsible for their shareholders, but must make decisions for all stakeholders and encourage stakeholder management theory The integration of personal values in the company's strategy and constitute a more ethical practice, and emphasizes the importance of the relationships that the company needs to establish with stakeholders (Freeman & Parmar, 2004).

2.2 Experimental Studies

Studies on corporate disclosure began in the 1960s. Cerf (1961) study was the first study measure the level of disclosure in annual reports, the study found a relationship between the level of disclosure and profitability of the company. Benjamin & Stanga (1977) study found that there was an impact for the level of disclosure provided by companies on investment decisions in the financial markets, indicating the value relevance of disclosure. Spero (1979) argues that the need for finance is one of the most important drivers of companies to increase their level of voluntary disclosures, as this affects investor decisions and increases the liquidity of their shares and reduces lenders' terms and interest rates. Al-Issa (1988) was the first study in Jordan that examined the value

relevance of disclosure, pointing out that there is an impact of the disclosures made by companies in investment decisions. Similarly, Abu-Nassar and Rutherford (1996) found that the information expressed by companies in Jordan is very important to the users' decisions. The results of the study show that annual reports are considered as a major source of information, followed by visits to companies and communication with management. Eizentas et al. (2012) also found value relevance for information in the investment decisions of traders in the financial markets, and the information of the announcement and the volume of information disclosed are important factors affecting the prices of shares and their market returns.

With regard to sustainability disclosure, it began late with the 1987 Report Brundtland Report (Jones, 2011). McGuire et al. (1988) found that the company's previous performance which is assessed through both the stock market returns and measures based on accounting is linked to corporate social responsibility. McWilliams & Siegel (2001) found a neutral relationship between corporate social responsibility and financial performance. Hassel et al. (2005) noted that there is an impact of environmental performance on the market value of Swedish companies. Murray et al. (2006) did not notice any correlation between stock returns and the release of corporate social responsibility. In contrast, Jones et al. (2007) found a strong correlation between disclosure of sustainability and stock returns, through a detailed review of the literature found in accounting literature. Schadewitz and Niskala (2010) findings suggest that the sustainability report can play an important role in addressing the market value of the company. Similarly, De Klerk and De Villiers (2012) concluded that corporate social responsibility disclosure is strongly and positively correlated with equity prices. Moneva and Ortas (2008) did not find a direct correlation between sustainability performance and stock valuation for a sample of European companies. In contrast, Lourenco et al. (2012) reveal that corporate sustainability has material explanatory power in stock prices.

The results of the Reverte (2016) showed a strong and consistent correlation between stock prices and CSR reports through stock price fluctuations in response to CSR disclosure reports. In Jordan, Abu Farha and Alkhalailah (2016) found that there is no statistically significant relationship between the level of disclosure of social responsibility and market returns. Miralles-Quirós et al. (2018) results support the value enhancing theory, as the study concluded that the market appreciates positively and large environmental practices implemented by companies. Mohammadi et al. (2018) found sustainability reporting is linked to market assessments in which companies active in environmentally sensitive industries with sustainability reports have higher market ratings than firms in non-sensitive industries with sustainability reports. Abu Karsh and AL-Deek (2019) did not find a relationship between disclosure of social responsibility and corporate profitability measured by (ROA, ROE, NP, and EPS). Garc ía-S ánchez et al. (2019) found that providing more information about CSR initiatives for the company is particularly valuable for those who finance companies, as more disclosure of CSR practices facilitates access to finance.

3. Study Methodology

This study proposes to present the diverse instrument's measurement of the variables proposed by the literature. In the Price and Return models, stock prices and stock returns are considered as the dependent variables in order to measure value relevance, while the level of the independent variable is sustainability practices disclosure. Data were collected from the annual reports of the banks included in the study sample.

3.1 Study Sample and Population

The study population consists of all 13 Jordanian commercial banks listed on the Amman Stock Exchange, during the period from 2008 to 2018. The study sample has represented of all banks.

3.2 Sources of Data

The study is based on secondary data, through reference to books and studies related to the subject of this study, and for the purposes of analysis have been refer to the websites of the banks included in the study sample, and the Amman Stock Exchange website, in order to obtain the financial statements of banks, and collect the necessary data on the study sample in addition to the websites of banks, in order to obtain financial reports, to examine their content and determine the level of disclosure of their sustainability practices.

3.3 Variables Measurement

3.3.1 Dependent variable: (level of disclosure of sustainability practices)

The level of disclosure of sustainability practices in their three dimensions (economic, social, and environmental) is measured in the Bank's financial statements (i) for fiscal year (t). This variable was measured by preparing an indicator a disclosure index of each dimension of the sustainability practices contained in the financial reports of the banks sample of the study, so that each paragraph of disclosure shall take the value of (1) if disclosed by the

bank, and (0) Otherwise. Then review the financial reports of the sample banks and identify the disclosure of sustainability practices. The values of the disclosure clauses of sustainability practices for each bank and each year of study were then aggregated and the total number of disclosure clauses as disclosed in the Sustainability Disclosure Index was then divided to reach a level of sustainability practices for each bank and each year:

$$LSuD_{it} = \frac{NoDSu_{it}}{TDS}$$

Where:

LSuD_{it}: The level of disclosure of the sustainability practices for the bank (i) in period (t).

NoDuS_{it}: The number of items disclosed from sustainability practices for the bank (i) in period (t).

TDS: The total number of disclosure items for Sustainability Practices in the Sustainability Disclosure Index.

3.3.2 Dependent variables:

Share price (P): share price of bank (i) three months after the fiscal year end, on March 31 year (t+1).

Stock returns (R): is the return of bank (i) three months after the fiscal year end, on March 31 year (t+1).

The annual returns calculated based on monthly stock prices using this formula:

$$R_{i,t} = ((AdjustP_{i,t} - AdjustP_{i,t-1}) / AdjustP_{i,t-1})$$

3.3.3 Control variables

Size (Siz): The size of the bank is measured using the natural logarithm of the total assets for the bank (i) in period (t).

Leverage (Lev): The leverage is measured by the assets owned by non-shareholders for the bank (i) in period (t).

3.4 Study Model

The research method used in this empirical investigation is regression analysis. Regression analysis is used to assess the value relevance of a group of accounting measures, a choice exists between two perspectives. The “measurement perspective” examines the association between accounting and market data, whereas the “signaling perspective” inspects variations in market value following announcements of accounting information (Hellström, 2006).

The study examines the value relevance of the importance of disclosing the sustainability practices of Jordanian commercial banks using a panel data set over the period 2008-2018. To achieve the study objective, the study presents an empirical methodology that consists of two steps as in the study of Miralles-Quirós et al. (2018), the first step is to examine whether the information extracted from the financial statements (book value and earnings) is associated with the share price. The second step is to add disclosure of the sustainability practices that represent the other information, into the proposed regression model to analyze whether this information is relevant in the process of forming long-term stock prices. The equations for the first two steps are the following:

$$P_{i,t} = \alpha_0 + \alpha_1 EPS_{i,t} + \alpha_2 BVPS_{i,t} + \alpha_3 Siz_{i,t} + \alpha_4 Lev_{i,t} + \epsilon_{i,t} \dots\dots\dots(1)$$

$$P_{i,t} = \alpha_0 + \alpha_1 EPS_{i,t} + \alpha_2 BVPS_{i,t} + \alpha_3 LSuD_{it} + \alpha_4 Siz_{i,t} + \alpha_5 Lev_{i,t} + \epsilon_{i,t} \dots\dots\dots(2)$$

Where:

P_{i,t} : share price of bank (i) three months after the fiscal year end, on March 31 year (t+1).

EPS_{i,t} : reported earnings per share of bank (i) at the end of the year (t).

BVPS_{i,t} : reported book value per share of bank (i) at the end of the year (t).

LSuD_{it}: The level of disclosure of the sustainability practices for the bank (i) in period (t).

Siz_{i,t}: The natural logarithm of the total assets for the bank (i) in period (t).

Lev_{i,t}: Total liabilities of the bank (i) in period (t) / Total assets of the bank (i) in period (t).

ε_{i,t} : is the error coefficient of bank (i) in period (t).

And to test the second hypothesis Ho-2 using the return model, we use Return model developed by Easton and Harris (1991), and estimate a multiple regression model:

$$R_{i,t} = \beta_0 + \beta_1 Earn_{i,t} + \beta_2 \Delta Earn_{i,t} + \beta_3 Siz_{i,t} + \beta_4 Lev_{i,t} + \epsilon_{i,t} \dots\dots\dots(3)$$

$$R_{i,t} = \beta_0 + \beta_1 \text{Earn}_{i,t} + \beta_2 \Delta \text{Earn}_{i,t} + \beta_3 \text{LSuD}_{it} + \beta_4 \text{Siz}_{i,t} + \beta_5 \text{Lev}_{i,t} + \varepsilon_{i,t} \dots\dots\dots(4)$$

Where:

R_{i,t} : returns of a bank (i) three months after the fiscal year end, on March 31 year (t+1) it is computed using the following formula:

$$R_{i,t} = ((P_{i,t} - P_{i,t-1}) + \text{DPS}_i) / P_{i,t-1}$$

Earn_{i,t} : EPS of bank (i) for year (t) over the year end (t-1) price.

Δ Earn_{i,t} : change in EPS of bank (i) over the year end (t-1) price.

LSuD_{it}: The level of disclosure of the sustainability practices for the bank (i) in period (t).

Siz_{i,t} : The natural logarithm of the total assets for the bank (i) in period (t).

Lev_{i,t} : Total liabilities of the bank (i) in period (t) / Total assets of the bank (i) in period (t).

ε_{i,t} : is the error coefficient of bank (i) in period (t).

4. Results

4.1 Descriptive Statistics

Table (1) presents the descriptive statistics of the independent variable and the dependent variable as well as the control variables for the period (2008-2018)

Table 1. Descriptive statistics

<i>Variable</i>	<i>Mean</i>	<i>Max</i>	<i>Min</i>	<i>Stdev.</i>
Share price of bank P(JOD)	4.11	9.40	1.22	3.22
Return of bank R%	0.343	2.99	-9.94	2.42
Book value per share(JOD)	3.85	5.89	2.17	1.79
Earnings per share	0.22	0.94	-0.01	0.16
Change in earnings per share%	-0.49	43.90	-28.70	9.13
Size (logarithm)	21.17	22.91	19.22	0.80
Leverage%	85.67	90.93	78.04	2.71
Sustainability disclosure%	16.34	67.06	11.76	11.30

Table 1. Shows that the mean for the level of disclosure of sustainability practices in Jordanian commercial banks (16.34%) during the period (2008-2018). The value of the standard deviation and the difference in maximum values indicate a difference between commercial banks in the level of disclosure of sustainability practices. The results indicate that there is a wide gap between Jordanian banks in the level of disclosure of sustainability practices. This may be due to the fact that some banks publish a special report on all their sustainability practices, while many banks have not done so.

The standard deviation (11.30), the maximum during the period (67.06), while the minimum (11.67%). And the mean of share price of the banks in the sample is (4.11) with a standard deviation of (3.22). The mean of Return of the banks in the sample is (0.343) with a standard deviation of (2.42). The mean of Book value per share of the banks in the sample is (3.85) with a standard deviation of (1.79). The mean of Earnings per share of the banks in the sample is (0.22) with a standard deviation of (0.16). And the mean of change in earnings per share of the banks in the sample is (-0.49) with a standard deviation of (9.13).

4.2 Multicollinearity Test

To test the existence of multicollinearity phenomena between model variables, Pearson correlation coefficients calculated between independent (predictor) variables, the results of testing multicollinearity between independents variables are explained by correlation matrices as follows:

Table 2. Correlation Matrix

	<i>Variable</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
1	Book value per share	1.00					
2	Earnings per share	0.782	1.00				
3	Change in earnings per share	-0.205	0.697	1.00			
4	Size	0.777	0.347	0.112	1.00		
5	Leverage	-0.485	-0.406	-0.388	0.759	1.00	
6	Sustainability disclosure	0.091	0.176	0.227	0.389	-0.472	1.00

The above table shows that maximum value of correlation coefficient (0.782) occurred between (book value per share & earnings per share), this value may indicate there is no multicollinearity problem, otherwise the values were less than or equals (± 0.782), which means there were no perfect relationship between variables. In the statistical literature the value (0.80) and more considered as an indicator of multicollinearity existence (Gujarati, 2004).

4.3 Regression Analysis

Table 3. The regression analysis for the first and second models

<i>Share price of bank P</i>	<i>Model 1</i>	<i>Model 2</i>
Intercept	13.862*** (0.00)	13.300*** (0.00)
Book value per share	6.526 (0.30)	4.082 (0.450)
Earnings per share	0.389*** (0.00)	0.382** (0.01)
Size	-0.164*** (0.00)	-0.130*** (0.00)
Leverage	-0.533** (0.03)	-0.808*** (0.00)
Sustainability disclosure		0.890*** (0.00)
Adjusted R²	0.210	0.308
F value	9.154	12.174
p-value	0.000	0.000

The above table reports that adjusted R Square for the first model, equal to (0.210), which means that about (21.0%) of the variation in share price of bank (P) is explained by first model. The significance value of the F statistic (F=9.154) is (Prob F = 0.000) less than 0.05, which means that the effect of independent variables aggregated is significant. Moreover, adjusted R Square reached to (0.308) by adding (sustainability disclosure) which means that about (30.8%) of the variation in share price of bank (P) is explained by second model. Also, the significance value of the F statistic (F=12.174) is (Prob F = 0.000) less than 0.05, which means that the effect of independent variables aggregated is significant. This refers to the relevance of information implied in sustainability disclosure, and it reflect on stock market and share price of bank (P).

This result can be explained by the Signaling Theory, which assumes that information is inconsistent between the management of the company and parties interested in the information, and considers that the information disclosed gives investors an indication of the company's past, current, and future performance and helps them in the decision-making process (Connelly et al., 2011). That companies aim to reduce inconsistencies in information and to indicate the quality and real value of companies by providing more information to parties that lack information by increasing the level of sustainability disclosure. The increase in the level of sustainability disclosure also provides a signal that will help financial analysts to predict and assess the future profits of companies and provide financial market customers with reports on the quality and value of companies. This is consistent with Benjamin & Stanga (1977), who argues that the impact of corporate disclosure on investment decisions in financial markets. As well as the result of Spero (1979), whose believes that increased level of disclosure affects investor decisions and increases the liquidity of stocks. Also Eizentas et al. (2012), who also found the value of information important in investment decisions for traders in financial markets. However, this finding is inconsistent with Moneva and Ortas (2008), where there is no direct correlation between sustainability performance and stock valuation of a sample of European companies.

Table 4. The regression analysis for the third and fourth models

<i>Return of bank R</i>	<i>Model 3</i>	<i>Model 4</i>
Intercept	0.077 (0.32)	-0.069** (0.04)
Earnings per share	0.018 (0.25)	0.028** (0.01)
Change in earnings per share	0.061** (0.03)	0.064*** (0.00)
Size	-0.002 (0.35)	-0.001 (0.23)
Leverage	-0.050 (0.47)	-0.020 (0.53)
Sustainability disclosure		0.832** (0.00)
Adjusted R²	0.158	0.306
F value	5.794	10.839
p-value	0.000	0.000

The above table reports that adjusted R Square for the third model, equal to (0.158), which means that about (15.8%) of the variation in return of bank (R) is explained by third model. The significance value of the F statistic (F=5.794) is (Prob F = 0.000) less than 0.05, which means that the effect of independent variables aggregated is significant. Moreover, adjusted R Square reached to (0.306) by adding (sustainability disclosure) which means that about (30.6%) of the variation in return of bank (R) is explained by fourth model. Also, the significance value of the F statistic (F=10.839) is (Prob F = 0.000) less than 0.05, which means that the effect of independent variables aggregated is significant. This refers to the relevance of information implied in sustainability disclosure, and it reflect on stock market and return of bank (R).

The relationship between the level of sustainability disclosure and the market returns can be explained by several assumptions and theories. Asset prices in the financial markets under the efficient market hypothesis reflect all relevant information about these assets (Fama, 1970). Therefore, information disclosed by companies will affect stock prices and is reflected directly in their market returns. In view of the Random Walk Theory, fluctuations in stock prices will reflect both previous information and any future market events, so market returns are closely linked to the level of sustainability disclosure provided by companies. The increase in sustainability disclosure will increase the ability of investors in financial markets to predict future events, which will neutralize the systematic behavior in the price chain, so the actual prices of securities will be randomly centered around intrinsic value (Thicke, 2017). Hamrouni et al. (2015) argue that the increased circulation of corporate information including sustainability information in the media and financial analysts' reports increases the level of trading of shares in the financial markets, which has an impact on its stock market returns..

The relationship between sustainability disclosure and market shares returns can be explained in the according to Legitimacy Theory. This theory considers that sustainability disclosure is a means by which management can influence the perceptions of society in the environment in which it operates, increasing community acceptance and thus improving its financial performance, and increase the liquidity of its shares, which is reflected in their market returns (Moerman, L & Van der, 2005). Which is also linked to Stakeholder theory. Stakeholders have a great deal of control over the company's resources. Increasing the level of sustainability disclosure may improve communication with stakeholders and improve their financial performance, reducing funding costs in relation to Reduce staff costs for owners, increase customer loyalty, assist them in obtaining production inputs at the lowest cost by improving their relationship with suppliers, and reduce the costs associated with regulators, which will affect the revenue streams And the strength of its shares (Nielsen & Madsen 2009).

This finding is in line with what McGuire et al. (1988) arguing that the company's previous performance, which is assessed by both stock market returns and accounting measures, is linked to CSR. And Jones et al. (2007), which concluded that there is a strong correlation between disclosure of sustainability and equity returns. As well as Mohammadi et al. (2018) who pointed out that the sustainability report is linked to market valuation of stock prices, which is reflected in market returns.

5. Conclusions

There is considerable debate in the academic realm about whether corporate behavior in disclosing sustainability practices is in line with shareholder interests. The interest of companies, shareholders and various stakeholders in sustainability practices and their role in maintaining corporate growth and prosperity has increased, which is why academic studies have grown that will decompose the impact of sustainability practices in stock markets. However, most of the literature on corporate sustainability practices and value creation has been conducted in developed countries and little is known about the impact of sustainability on equity prices and market returns in emerging markets, including Jordan. It is, therefore, necessary to close this gap in the literature on sustainability practices.

In this sense, the Jordanian situation was analyzed. Given its unique economic, natural and human resources, it is particularly important to examine how investors assess the sustainability performance of Jordanian banks. More specifically, we have contributed to increasing understanding of the advantages and disadvantages of investors to consider corporate disclosure of sustainability practices by analyzing the impact of the disclosure of sustainability practices in stock prices and market returns of Jordanian commercial banks during the period 2008 to 2018.

The results of the valuation analysis revealed that investors positively appreciate the disclosure of the sustainability practices of Jordanian commercial banks listed on the Amman Stock Exchange. The analysis of the study models (1) and (2) related to the prices of bank shares in the study sample revealed that the disclosure of sustainability practices increases the explanatory power of the model from (21.0%) to (30.8%). The analysis of the study models (3) and (4) related to the market returns of the banks in the study sample revealed that the disclosure of sustainability practices increases the explanatory power of the model from (15.8%) to (30.6%).

These results have important implications for investment decisions in the ASE, as well as for the managers of these banks and policymakers. This provides relevant information on the implications of share prices and market returns as a result of the disclosure of sustainability practices in Jordanian commercial banks for consideration by investors when making their investment decisions. Furthermore, we should note that investors are crucial stakeholders and can exert a significant influence on the sustainability strategy of the companies they own.

References

- Abu Karsh S. M. & AL-Deek D. (2019). Corporate Social Responsibility and Its Relation to Profitability: Evidence from Banks Operating in Palestine, *Journal of Management Research*, 11(1), 45-60. <https://doi.org/10.5296/jmr.v11i1.14214>
- Abu-Nassar, M. & Rutherford, B. (1996). External users of financial reports in less developed country: the case of Jordan, *British Accounting Review*, 28(1), 73-87. <https://doi.org/10.1006/bare.1996.0004>
- Aerts, W., Cormier, D. & Magnan, M. (2008). Corporate environmental disclosure, financial markets and the media: An international perspective. *Ecological Economics*, 64(3), 643-659. <https://doi.org/10.1016/j.ecolecon.2007.04.012>
- Agle, B. R., Donaldson, T., Freeman, R. E., Jensen, M. C., Mitchell, R. K. & Wood, D. J. (2008). Dialogue: Toward superior stakeholder theory. *Business Ethics Quarterly*, 18(2), 153-190. <https://doi.org/10.5840/%20beq200818214>

- Al-Issa, Y. (1988). The usefulness of corporate financial disclosure to investors in the Amman Financial Market, PhD thesis, University of Lancaster
- Baboukardos, D. (2018). The valuation relevance of environmental performance revisited: The moderating role of environmental provisions. *The British Accounting Review*, 50(1), 32-47. <https://doi.org/10.1016/j.bar.2017.09.002>
- Benjamin, J.J. & Stanga, K.G. (1977). 'Differences in disclosure needs of major users of financial statements', *Accounting & Business Research*, 187-192. <https://doi.org/10.1080/00014788.1977.9728702>
- Brooks, C. & Oikonomou, I. (2018). The effects of environmental, social and governance disclosures and performance on firm value: A review of the literature in accounting and finance. *The British Accounting Review*, 50(1), 1-15. <https://doi.org/10.1016/j.bar.2017.11.005>
- Cerf, A. R. (1961). *Corporate reporting and investment decisions*. Berkeley: University of California Press.
- Clarkson, P. M., Fang, Xiaohua, Li, Y. & Richardson, G. (2013). The relevance of environmental disclosures: are such disclosures incrementally informative?. *Journal of Accounting and Public Policy*, 32(5) 410-431. <https://doi.org/10.1016/j.jaccpubpol.2013.06.008>
- Clarkson, P.M., Fang, X.; Li, Y. & Richardson, G. (2013). The relevance of environmental disclosures: Are such disclosures incrementally informative? *J. Account. Public Policy*, 32, 410-431. <https://doi.org/10.1016/j.jaccpubpol.2013.06.008>
- Connelly, B L, Certo, S T, Ireland, R D & Reutzel, C R. (2011). Signaling theory: a review and assessment, *Journal of Management*, 37(1), 39-67. <https://doi.org/10.1177/0149206310388419>
- De Klerk, M. & De Villiers, C. (2012). The value relevance of corporate responsibility reporting: South African evidence. *Meditari Accountancy Research*, 20(1), 21-38. <http://dx.doi.org/10.1108/10222521211234200>
- Didar H., Abdi S. & Mostafazade V. (2018). Voluntary Disclosure and Informational Content of Share Price: Evidence from Tehran Stock Exchange, *Iranian Journal of Management Studies (IJMS)*, 11(1), 185-208. (DOI): 10.22059/ijms.2018.238032.672751
- Easton, P. & Harris, T. (1991). Earnings as an explanatory variable for returns. *Journal of Accounting Research*, 29, 19-36. 10.2307/2491026 <https://www.jstor.org/stable/2491026>
- Eizentas V., Krušinskas R. & Stankevičienė J. (2012). Impact of public information signals on Share prices: evidence from Lithuania, *Economics and Management*, 17(3), 879-888. <http://dx.doi.org/10.5755/j01.em.17.3.2098>
- Elfeky M. I. & Nasiri A. (2017), The Determinants of Voluntary Disclosure in Emerging Markets: The Case of Egypt, *Journal of Poverty, Investment and Development*, 36, 1-12. <https://pdfs.semanticscholar.org/5ab7/f2af503858a0ac2dd4f29a8128eaa7c75b87.pdf>
- Fama, Eugene F. (1970), Efficient Capital Markets: A Review of Theory and Empirical Work, *The Journal of Finance*, 25(2), 55-59 <https://doi.org/10.2307/2325486>
- Farha, E. A. & Alkhalailah, M. (2016). The Relationship between Corporate Social Responsibility's Disclosure and Financial Performance: An Empirical Study of Jordanian Companies Listed on Amman Stock Exchange. *Jordan Journal of Business Administration*, 12(2), 401-415. <https://doi.org/10.12816/0033356>
- Freeman, R E, Wicks, A C. & Parmar, B. (2004). Stakeholder theory and the corporate objective revisited, *Organization Science*, 15(3), 364-369. <https://doi.org/10.1287/orsc.1040.0066>
- Freeman, R. E. (1984). *Strategic Management: A stakeholder Approach*. Englewood Cliffs, NJ: Prentice-Hall.
- García-Sánchez, IM., Hussain, N., Martínez-Ferrero, J. & Ruiz-Barbadillo, E. (2019). Impact of disclosure and assurance quality of corporate sustainability reports on access to finance. *Corporate Social Responsibility and Environmental Management*, 1-17, <https://doi.org/10.1002/csr.1724>
- Gujarati, D.N. (2004). *Basic Econometrics*. (4th ed.), UNA, New York: McGraw Hill.
- Hamrouni A., Miloudi A. & Benkraiem R. (2015). Signaling Firm Performance Through Corporate Voluntary Disclosure, *The Journal of Applied Business Research*, 31(2), 609-620. <https://doi.org/10.19030/jabr.v31i2.9157>
- Hamrouni Amal, Miloudi Anthony and Benkraiem Ramzi. (2015). Signaling Firm Performance Through Corporate Voluntary Disclosure, *The Journal of Applied Business Research*, 31(2), 609-620. <https://doi.org/10.19030/jabr.v31i2.9157>

- Hassel, L., Nilsson, H. & Nyquist, S. (2005). The value relevance of environmental performance. *European Accounting Review*, 14(13), 41-61. <https://doi.org/10.1080/0963818042000279722>
- Healy, P. M. & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, 31(1-3), 405-440. [https://doi.org/10.1016/S0165-4101\(01\)00018-0](https://doi.org/10.1016/S0165-4101(01)00018-0)
- Hellström, K. (2006). The value relevance of financial accounting information in a transition economy: The case of the Czech republic. *European Accounting Review*, 15(3), 325-349. <https://doi.org/10.1080/09638180600916242>
- Ioannou, I. & Serafeim, G. (2015). The impact of corporate social responsibility on investment recommendations: Analysts' perceptions and shifting institutional logics. *Strategic Management Journal*, 36(7), 1053-1081. <https://doi.org/10.1002/smj.2268>
- Jo, H. & Harjoto, M. (2014). Analyst coverage, corporate social responsibility, and firm risk. *Business Ethics: A European Review*, 23(3), 272-292. <https://doi.org/10.1111/beer.12051>
- Jones M. J. (2011). The nature, use and impression management of graphs in social and environmental accounting. *Accounting Forum*, 35, 75-89. <https://doi.org/10.1016/j.accfor.2011.03.002>
- Jones, S., Frost, G., Loftus, J. & Van Der Laan, S. (2007). An empirical examination of the market returns and financial performance of entities engaged in sustainability reporting. *Australian Accounting Review*, 17(1), 78-87. <https://doi.org/10.1111/j.1835-2561.2007.tb00456.x>
- Kim, Y., Li, H. & Li, S. (2014). Corporate social responsibility and stock price crash risk. *Journal of Banking & Finance*, 43, 1-13 <https://doi.org/10.1016/j.jbankfin.2014.02.013>
- Lang, M., Lins, K.V. & Miller, D.P. (2004). Concentrated Control, Analyst Following and Valuation: Do Analysts Matter Most When Investors are Protected Least?, *Journal of Accounting Research*, 42(3), 589-623. <https://doi.org/10.1111/j.1475-679X.2004.t01-1-00142.x>
- Li, K., Khalili, N.R. & Cheng, W. (2019). Corporate Social Responsibility Practices in China: Trends, Context, and Impact on Company Performance. *Sustainability*, 11, 354; <https://doi.org/10.3390/su11020354>
- Lourenco, I. C., Branco, M. C., Curto, J. D. & Eugenio, T. (2012). How does the market value corporate sustainability performance. *Journal Business Ethics*, 108(4), 417-428. <https://doi.org/10.1007/s10551-011-1102-8>
- Luo, X., Wang, H., Raithel, S. & Zheng, Q. (2015). Corporate social performance, analyst stock recommendations, and firm future returns. *Strategic Management Journal*, 36(1), 123-136. <https://www.doi.org/%2010.1002/smj.2219>
- McGuire, J. B., Sundgren, A. & Schneeweis, T. (1988). Corporate Social Responsibility and Firm Financial Performance. *Academy of Management Journal*, 31(4), 854-872. <https://doi.org/10.5465/256342>
- McWilliams, A. & Siegel, D. (2001). Corporate Social Responsibility: A Theory of the Firm Perspective. *Academy of Management Review*, 26(1), 117-127. <https://doi.org/10.5465/amr.2001.4011987>
- Miralles-Quirós, M. M., Miralles-Quirós, J. L. & Gonçalves, L. V. (2018). The Value Relevance of Environmental, Social, and Governance Performance: The Brazilian Case, *Sustainability*, 10(3), 574; <https://doi.org/10.3390/su10030574>
- Moerman, L & Van der Laan, S. (2005). Social reporting by the tobacco industry: all smoke and mirrors?, *Accounting, Auditing and Accountability Journal*, 18(3), 374-389.
- Mohammadi M., Mardani A., Khan A. & Streimikiene D. (2018). Corporate sustainability disclosure and market valuation in a Middle Eastern Nation: evidence from listed firms on the Tehran Stock Exchange: sensitive industries versus non-sensitive industries, *Economic Research-Ekonomska Istraživanja*, 31(1), 1488-1511. <https://doi.org/10.1080/1331677X.2018.1486722>
- Moneva, J. M. & Ortas, E. (2008). Are stock markets influenced by sustainability matter? Evidence from European companies. *International Journal of Sustainable Economics*, 1(1), 1-16. <https://doi.org/10.1504/IJSE.2008.020013>
- Murray, A., Sinclair, D., Power, D. & Gray, R. (2006). Do financial markets care about social and environmental disclosure? Further evidence and exploration from the UK. *Accounting Auditing Accountability Journal*, 19(2), 228-255. <https://doi.org/10.1108/09513570610656105>

- Nielsen C. & Madsen M T. (2009), Discourses of transparency in the intellectual capital debate: moving from generic reporting models to management defined information, *Critical Perspectives on Accounting*, 20(7), 847-854. <https://doi.org/10.1016/j.cpa.2008.09.007>
- Okpala, O.P. & Iredele, O.O. (2018). Corporate Social and Environmental Disclosures and Market Value of Listed Firms in Nigeria. *Copernican Journal of Finance & Accounting*, 7(3), 9-28.<https://doi.org/10.12775/CJFA.2018.013>
- Oliveira, L., Rodrigues, L.L. & Craig, R. (2013), Stakeholder Theory and the Voluntary Disclosure of Intellectual Capital Information, *Caspian Journal of Applied Sciences Research*, 2(3). <http://www.cjasr.com>
- Qiu, Y., Shaukat, A. & Tharyan, R. (2016). Environmental and social disclosures: Link with corporate financial performance. *The British Accounting Review*, 48(1), 102-116. <https://doi.org/10.1016/j.bar.2014.10.007>
- Ratnatunga, J & Alam, M. (2011). Strategic governance and management accounting: evidence from a case study, *Abacus*, 47(3), 343-382. <https://doi.org/10.1111/j.1467-6281.2011.00344.x>
- Reverte, C. (2016). Corporate social responsibility disclosure and market valuation: evidence from Spanish listed firm. *Review Management Science*, 10, 411-435. <https://doi.org/10.1007/s11846-014-0151-7>
- Schadewitz, H. & Niskala, M. (2010). Communication via responsibility reporting and its effect on firm value in Finland. *Corporate Society Responsibility and Environmental Management*, 17, 96-106. <https://doi.org/10.1002/csr.234>
- Song, L. (2015). Accounting disclosure, share price synchronicity and share crash risk an emerging-market perspective, *International Journal of Accounting & Information Management*, 23(4), 349-363. <https://doi.org/10.1108/IJAIM-02-2015-0007>
- Spero, L. L. (1979). The Extent and Causes of Voluntary Disclosure of Financial Information in Three European Capital Markets: An Exploratory Study, doctoral dissertation, Harvard University.
- Suchman, M C. (1995). Managing legitimacy: strategic and institutional approaches, *Academy of Management Review*, 20(3), 571-610. <https://www.jstor.org/stable/258788> <https://doi.org/10.5465/amr.1995.9508080331>
- Thicke, Michael. (2017). What is the Efficient Market Hypothesis? HES Annual Conference 2017, University of Toronto (Trinity College).

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).