

Effect of Financial Performance on Stock Prices of Manufacturing Companies in Malaysia; Moderating Role of Sustainability Reporting

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Abstract

The purpose of this study is to examine the relationship between financial performance (FP) and stock prices (SP) of Malaysian manufacturing companies. This study also examines the effect of sustainability reporting on the relationship between FP and SP. If the information reported in financial statements were useful, this information would affect investors' reactions. Investors' reactions are reflected in their transactions in the capital market. Desirable reactions to information are shown by an increase in demand for a company's stock, which leads to an increase in its stock price. Undesirable reactions to information, on the other hand, result in a decrease in demand for a company's stock, leading to a decrease in the stock price. Therefore, capital markets research is often used to examine investor reactions to corporate information disclosure and to evaluate the relevance of alternative accounting and disclosure decisions to investors. Based on the efficient market hypothesis (EMH), this study hypothesized that financial performance has a positive effect on the stock prices of manufacturing companies in Malaysia. Financial performance is critical but not sufficient for corporate survival. Companies can achieve sustainable performance just to meet mutual expectations of doing business. Therefore, based on the institutional theory, this study hypothesizes that a sustainability reporting strengthens the relationship between financial performance and stock price. The hypotheses were empirically tested using a sample of 74 Malaysian manufacturing companies from 2018 to 2019 using an Ordinary Least Square (OLS). The results of this study indicate a positive and significant relationship between FP and SP. In addition, this study found that sustainability reporting strengthens the effect of FP on stock prices enhancement.

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INTRODUCTION

There are some papers that have been done on the factors that can affect the financial performance of companies. Some of the factors found in previous research are, organizational factors, including liquidity, leverage, asset utilization, market share position, and firm size (Saad M & Zhengge, 2015). In addition, there are some papers that have studied the effect of corporate social responsibility on the financial performance of companies. For example, Yung-Heng Lee, Lori Tzu-Yi Yang (2021) in Taiwan, Okafor et al., (2021) in the USA, Maqbool, (2019) in India. However, studies that have examined the relationship between corporate social responsibility and financial performance show mixed results. Some of the previous studies found positive effects of corporate social responsibility on financial performance. For example, Maqbool & Zameer, (2017) in India, Cho et al., (2019) in Korea, Matei et al., (2021) in China, Szegedi et al., (2020) in Pakistan. There are also some studies showing the negative effects of corporate social responsibility on financial performance (Lee & Yang, 2021). These mixed results provide an opportunity for further research in this area to show the effect of corporate social responsibility on financial performance. Therefore, this study examines the effect of sustainability reporting as an indicator for CSR on the relationship between financial performance and stock prices.

Stock markets play a fundamental role in the development of any country's economy, the stock market provides a platform for capital formation and economic growth through the purchase and sale of financial securities (Saini et al., 2014). Therefore, the stock market can positively affect the financial performance of companies. However, despite the important effect of the stock market on economic and financial growth, there are extremely few studies that have examined how financial performance can affect stock prices or the stock market. Most previous studies examined the relationship between the stock market and financial performance, rather than between financial performance and stock prices. One of the studies that investigated the relationship between the stock market and financial performance is the work of Hove & Shoko, (2020). Hove & Shoko, (2020) found that return on assets (ROI) as a measure of financial performance is significantly and positively affected by stock market price. In this study, it is assumed that the first and most important step for potential investors to find a profitable company for their investment is to evaluate its financial performance by analyzing its financial ratios. Potential investors use financial ratio analysis to evaluate the financial performance and profitability level of companies. Then they compare the selected companies and make their final decision, influencing the stock market. As far as this study knows, there are few studies that have investigated the impact of FP on SP. Therefore, this study investigates the relationship between FP and stock prices. In other words, this study investigates whether FP can influence SP.

Over the years, sustainability reporting has emerged as an important tool that can help companies and organizations meet the growing demand for transparency from customers, investors, other stakeholders, and society in general. In sustainability reports, companies voluntarily disclose information about the economic, environmental, and social impacts of their activities. This allows companies to reduce information asymmetries and increase transparency about their positive or negative sustainability performance (Nobanee & Ellili, 2017). There are some previous works on the relationship between corporate social responsibility (CSR) and performance. However, there are some differences between previous studies in this area and the present study. First, this study did not focus on corporate social responsibility (CSR) as an independent variable but uses FP as an independent variable and uses sustainability reporting, an indicator of CSR, as a moderator. As far as this study knows, there is no study in the literature that uses sustainability reporting as a moderator. Second, there are few studies that have examined the relationship between financial performance and stock price. Therefore, this study considers stock prices as the dependent variable to determine the importance of financial performance on stock prices enhancement. Finally, to the best of knowledge, there are no studies conducted in Malaysia in this area, so this study focuses on Malaysia as a sample. Based on above discussion, the objective of this study is to find out answers for the following questions:

- 1) Does financial performance (FP) affect stock prices (SP)?

- 2) Does sustainability reporting affect the relationship between financial performance (FP) and stock price (SP)?

The remainder of this study will proceed as follows. In the next section, a brief review of the relevant literature will be provided, followed by hypothesis development. Then, the research design, sample, and research models used to test the hypotheses will be discussed. The results of this study are presented in the final section. Limitations of this study and suggestions for possible future research are presented in the last section of this paper.

1. Literature

The main objective of the literature review is to identify research gaps from prior studies. This review starts with synthesizing and reviewing previous studies on CSR and performance. It continues with a discussion on environmental reporting and its effect on financial performance. Finally, last section concludes the chapter by presenting the gaps in the existing literature that renders this study necessary.

The effect of corporate social responsibility (CSR) and Performance:

Lee & Yang, (2021) investigated the relationship between corporate social responsibility (CSR) and financial performance in Taiwan from 2013 to 2017 and found that companies that implemented more CSR had stronger and negative effects on their profitability compared to other companies. Lee & Yang, (2021), Okafor et al., (2021) also found insignificant evidence of a relationship between corporate social responsibility (CSR) and performance. In contrast to the above two studies, Maqbool & Zameer, (2018) found a positive relationship between corporate social responsibility (CSR) and the financial performance of Indian banks from 2007 to 2016. Similar to Lee & Yang, (2021), Liang & Liu, (2017) found a negative relationship between environmental management and the performance of Chinese manufacturing companies in China from 2010 to 2016. In addition, Putri et al., (2020) investigated the effect of environmental management on financial performance in Indonesia and found an insignificant relationship between environmental management and financial performance. On the other hand, Petitjean, (2019) studied the relationship between environmentally friendly and financial performance in the USA from 2005 to 2017 and found weak evidence to support the hypothesis that the relationship between environmental performance and financial performance exists.

Aifuwa, (2020) examined the relationship between sustainability reports and financial performance in 8 developing countries from 2014 until 2019 and found that there is no relationship between sustainability reporting and financial performance. Similarly, Alshehhi et al., (2018) at 33 countries from 2016 until 2017, found more research is needed to facilitate convergence in the understanding of the relationship between sustainability reports and financial performance. Panjaitan, (2017) in Indonesia from 2013 until 2014 found there is no relationship between sustainability reports and financial performance. Furthermore, Asuquo & Dada, (2018) examined the relationship between sustainability reports and financial performance in Nigeria from 2012 until 2016 and found sustainability reports have an insignificant effect on financial performance. Opposite of the above studies, Keskin et al., (2020) using turkey from 2016 until 2018, found a positive relationship between sustainability and performance. Elkholy, (2020) examined the relationship between sustainability accounting and financial performance in Egypt in the year 2018 and found economics, environmental, and social aspects have a positive significant effect on corporate financial performance. Same as Elkholy, (2020), Thi et al., (2021) found that positive relationship between sustainability and performance by using Vietnam from 2013 until 2015. In addition, Hardiningsih et al., (2020) by using Malaysia and Indonesia from 2015 until 2018, found a positive and significant relationship between sustainability reports and financial performance. Moreover, Muñoz et al., (2021) have examined the relationship between sustainability and financial performance in Spain in the year 2019 and found a positive and significant relationship between sustainability and financial performance. Similarly, Cho et al., (2019) used Korea in 2015 and found a positive relationship between corporate social responsibility (CSR) performance and financial performance. As well as Shabbir & Wisdom, (2020) in Nigeria from 2011 until 2018 found a positive and significant relationship between CSR and a firm's financial performance. In addition, Beck et al., (2018) examined the relationship between corporate social responsibility (CSR) disclosure and financial performance in China in the year 2009 and

found a significant relationship between corporate social responsibility (CSR) and financial performance. Awaysheh et al., (2020) used India in the year 2017 and found a significant relationship between performance and corporate social responsibility (CSR).

Li et al., (2017) have examined the relationship between corporate environmental responsibility and financial performance in China in the year between 2012 and 2014 and found corporate environmental responsibility significantly and positively influences financial performance. Hoang et al., (2019) by using Vietnam from 2013 until 2017, found that there is a close relationship between environmental management and financial performance. In addition, Dal Maso et al., (2018) used 37 countries from the year 2002 until 2014 to find a positive and significant relationship between corporate environmental and financial performance. Same to Dal Maso et al., (2018), Urbański, (2020) by using Poland from the year 2018 until 2019, found environmental and social costs disclosure significantly affected financial performance. Besides, Xie et al., (2020) by using 74 countries between the years 2003 and 2013, have found environmental management reveals a non-negative relationship with financial performance. Furthermore, Szegedi et al., (2020) using Pakistan from the year 2008 until 2018 found a positive relationship between corporate social responsibility (CSR) and financial performance. Liu et al., (2021), also found a significant and positive relationship between corporate social responsibility (CSR) and financial performance in China in the year 2009 until 2018. Opposite of the above studies, Boakye et al., (2021) with using the United Kingdom from 2011 until 2016 found there is a positive and significant relationship between environmental management and performance at SMEs. As can be seen, there are some previous studies on the relationship between corporate social responsibility (CSR) and financial performance. To date, however, no study has examined the moderating effect of sustainability reporting. Moreover, existing empirical studies have provided mixed evidence on whether CSR has an impact on FP. The inconsistent evidence provides an opportunity to further illuminate the debate on the impact of sustainability reporting as an indicator of CSR at FP. Therefore, this study examines the moderating effect of sustainability reporting on the relationship between FP and SP in Malaysia.

Regarding previous studies on financial performance, several studies have used financial performance, but with other independent or dependent variables. For example, Sadeghnia & Setayesh, (2020) found a significant and positive relationship between information systems integration and firm performance in Iran in 2018. Mojtaba, Amir, and Mahsa (2020) studied the relationship between effective risk management and financial performance in Iran in 2017 and found a significant and positive relationship between effective risk management and firm performance. Kim, Seul, and Liang (2020), using the United States from 2004 to 2016, found that there was no relationship between epidemic disease outbreaks and restaurant financial performance. Hove & Shoko, (2020) examined the relationship between stock price and financial performance in Zimbabwe from 2009 to 2018 and found that there is a positive and significant relationship between stock price and financial performance of banking institutions. Cyril & Emeka, (2020) using Nigeria from 2009 to 2018, found that there is no relationship between dividend policy and financial performance of manufacturing firms. Israel & Bein, (2019) on the other hand, using data from Nigeria from 2009 to 2014, found that there is a positive and significant relationship between dividend pay-out ratio and financial performance. Vu et al., (2018) examined the relationship between board ownership structure and financial performance in Vietnam in 2014 and found that board ownership stability negatively affects firm financial performance. Roffia et al., (2021) studied the relationship between board ownership and financial performance in Italy from 2014 to 2017 and found a significant correlation between certain board characteristics and financial performance in SMEs. Zainudin et al., (2021) studied Malaysia from 2000 to 2015 and found a positive and significant relationship between internalization and corporate financial performance.

There are some differences between previous studies and this study. First, this study did not focus on corporate social responsibility (CSR) as an independent variable while FP is used as an independent variable and sustainability reporting, an indicator of CSR, is employed as a moderator. As far as this study knows, there is no study that considers sustainability reporting as a moderator in examining the value and relevance of financial performance. Second, there are few studies conducted in Malaysia in this area,

therefore, this study focuses on Malaysia as a sample bank. Table 1 illustrates a summary of the previous studies in this area.

2. Research framework and hypotheses development

This study applies two theories, Efficient Market Hypothesis (EMH) and Institutional Theory (IT) that provide theoretical supports to the hypothesis's development. Capital markets research examines how information disclosure affects investor trading activity and stock prices in capital markets (Deegan, 2010). If the information disclosed in financial statements were useful, that information would affect investor reactions. Investors' reactions are reflected in their transactions in the capital market. Desirable reactions to the information are shown by an increase in demand for a company's stock, which leads to an increase in its stock price. Undesirable reactions to the information, on the other hand, result in a decrease in demand for a company's shares, leading to a decrease in the share price. Therefore, capital markets research is often used to study investor reactions to corporate information disclosure and to assess the relevance of alternative accounting and disclosure decisions for investors. As this study examines the relationship between Financial Performance (FP) and Share Price (SP), it is, therefore, a form of capital market research. One of the factors considered in capital market research is market efficiency (Rankin, M. et al., 2012). Market efficiency is defined in accordance with the Efficient Market Hypothesis (EMH) as a market adapts rapidly to fully impound information into share price when the information is released (E.F. et al., 1969). According to the efficient market hypothesis, an efficient market is a market in which its share prices always fully reflect all available information (Fama 1970). There are three forms of market efficiency, weak, semi-strong, and strong (Valentine, 2007).

In the weak form of market efficiency, stock prices reflect only information about past prices and trading volumes. In the semi-strong form of efficiency, current prices reflect information contained not only in past prices but also in all public information (including financial statements). Semi-strong form efficiency occurs when markets respond quickly to publicly available information. Publicly available information includes information on annual earnings and dividends, as well as other information that is made available to the public. The strong form of market efficiency, on the other hand, assumes that stock prices reflect, on average, all information that is known at the time, including information that is not publicly available. This means that the strong form of market efficiency exists when stock prices reflect all information, both public and private.

Based on earlier work by Tuck, (2005), Ahmed et al., (2010) and Yousefinejad et al., (2017), the Malaysian stock market is found to be semi-strongly efficient. According to Watts and Zimmerman (1978), the available data are consistent with the semi-strong form of the efficient market hypothesis, i.e., the market responds quickly to publicly available information. This means that investors in Malaysia respond quickly to publicly available information.

Table 1: Summary of Literature Review

No	Authors name	Year	IV	DV	Others	Sample	Results
1	Yung-Heng Lee Lori Tzu-Yi Yang	2021	Corporate social responsibility	FP	Size, Leverage, Tangibility, Age	Taiwan 2013 to 2017	-
2	Danquah Jeff Boakye Ishmael Tingbani Gabriel Sam Ahinful Randolph Nsor-Ambala	2021	environmental management performance	FP	Size, Liquidity Board Size Board Independence CEO Remuneration	United Kingdom 2011 to 2016	+
3	Mostafa Sadeghnia Mohammad Hosein Setayesh	2021	Information System Integration	FP	Cost Performance	2018	+
4	Ayşe İrem Keskin Banu Dince Caner Dincer	2020	Sustainability	FP	Volatility ROE EPS P/B Ratio Size Leverage ROA	Turkey 2016-2018	+
5	Mojtaba Karami Amir Samimi Mahsa Jafari	2020	Effective Risk Management	FP	NA	Iran 2017	No result
6	Jaewook Kim Jewoo Kim Seul Ki Lee	2020	epidemic disease outbreaks	FP	Return on stock market	USA 2004–2016	No result
7	Kudakwashe HOVE Twoboy SHOKO Jonathan SHOKO	2020	STOCK PRICE	FP	ROA ROE ROI EPS	ZIMBABWE 2009-2018	+
8	Ubesie Madubuko Cyril, Emejulu Callistus Emeka, Iyidiobi Felicia Cheluchi	2020	Dividend Policy	FP	Dividend per Share EPS ROA ROE	NIGERIA 2009-2018	No result
9	Nguyen Hoang Tien Dinh Ba Hung Anh Nguyen Minh Ngoc	2020	Corporate financial performance	FP	Size Leverage	Vietnam 2013-2015	+
10	Israel Odion E. Idewe Bein A. Murad	2019	Dividend Policy	FP	Firm Size Total Debt	NIGERIA 2009-2014	+
11	Manh-Chien Vu, Thanh Tu Phan, Nhu Tuyen Le	2018	Board Ownership Structure	FP	Firm Size GDP growth	Vietnam 2014	-

12	MayaFinger Ilanit Gaviols, Ronny Manos	2018	Environmental risk management	FP	Size Capitalization Tier1 ratio	Cross Country 2003-2013	+
13	Shafat Maqbooln M. Nasir Zameer	2017	Corporate social responsibility	FP	Size, risk, capital intensity and age	India 2007-2016	+
14	Sang Jun Cho, Chune Young Chung Jason Young	2017	Corporate social responsibility	FP	Size of the firm, debt ratio	Korea 2015	+
15	Mikael Petitjean	2017	Eco-friendly policies	FP	R&D Expenditures, Current Ratio, Account Receivables	USA 2005-2017	No result
16	Surender Kumar Pritika Dua	2021	Environmental Management Practices	FP	Intensity, Asset age, Sales growth, Size, Age of firm.	India 2008-2018	+
17	Yadong Liu, Sharjeel Saleem, Rizwan Shabbir, Malik Shahzad Shabbir,	2021	corporate social responsibility	FP	ROA ROE	China 2009-2018	+
18	Salim Chouaibi, Jamel Chouaibi, Matteo Rossi	2021	environmental, social and governance (ESG)	FP	NA	Germany 2005–2019.	-
19	Paolo Roffia, Virginia Simón-Moya Javier Sendra García	2021	board of director	FP	Sales growth, Assets value, Sales turnover, Leverage, Firm age	Italy 2014-2017	+
20	Rosa M. Muñoz M. Valle Fernández Yolanda Salinero	2021	Sustainability, Corporate Social Responsibility,	FP	ROA	SPAIN 2019	+
21	Pancawati Hardiningsih Indira Januarti Etna Nur Afri Yuyetta Ceacilia Srimindarti Udin Udin	2020	Sustainability Information Disclosure	FP	Size Leverage	Malaysia And Indonesia 2015-2018	+
22	Hope Osyantinn Aifuwa	2020	SUSTAINABILITY REPORTING	FP	ROA ROE	2014-2019	No result
23	Mahmoud Abdul Aleem Elkholy	2020	Sustainability Accounting	FP	Top management support and innovation	Egypt 2018	+

24	Amrou Awaysheh Randall A. Heron Tod Perry Jared I. Wilson	2020	corporate social responsibility	FP	-	Indiana 2017	+
25	Krisztina Szegedi Yahya Khan Csaba Lentner	2020	Corporate Social Responsibility	FP	ROA ROE	Pakistan 2008-2018	+
26	Ingrid Panjaitan	2017	Sustainability Report and Corporate Governance	FP	ROA Liquidity ratio	Indonesia 2013-2014	No result
27	Ali Alshehhi Haitham Nobanee Nilesh Khare	2017	Sustainability Practices	FP	ROA ROE EPS	2016-2017	No result
28	Jun Xie Wataru Nozawa Michiyuki Yagi Hidemichi Fujii Shunsuke Managi	2017	environmental, social and governance (ESG)	FP	Corporate efficiency ROA, Market value.	2015	+
29	Cornelia Beck, Geoffrey Frost, Stewart Jones	2017	CSR disclosure	FP	Size, Financial risk	Hong Kong 2009	+
30	Akabom I. Asuquo; Dada Esther Temitayo Onyeogaziri Udonna Raphael	2017	Sustainability Reporting	FP	Size	Nigeria 2012-2016	+
31	Henry Hyun-Do Kim Kwangwoo Park	2021	Corporate Environmental	FP	Leverage, Capital expenditures, Institutional ownership, CEO equity ownership, and CEO duality	USA 2004 to 2016	+
32	Anthony Okafor Michael Adusei Bosede Ngozi Adeleye	2021	Corporate Social Responsibility	FP	leverage	USA 2017-2019	-
33	Rozaimah Zainudin, Nurul Shahnaz Mahdzan, Norzulkarnien Nor Mohamad	2021	Internationalisation	FP	ROA ROE ROC ROS	2000-2015	-
34	HenryAigbedo	2021	FP	EP	Firm Age Financial Leverage	2012	No result
35	Hermawan, Oktaviani, Biduri	2021	Managerial Ownership and Environmental Performance	FP	NA	2012-2016	+

36	Shoab Aslam Mohamed H. Elmagrhi Ramiz Ur Rehman	2020	Environmental management practices	FP	Firm size Leverage Research and development	JAPAN 2007 to 2018	+
37	Bé chirBen Lahouela Maria-Giuseppina Brunaa YounesBen Zaiedb	2020	environmental performance	FP	Sales growth Leverage	France 2005-2017	+
38	Francis O. Iyoha Akintola A. Owolabi	2020	Corporate environmental reputation management	FP	Size	Nigeria 2008 - 2017	+
39	Harwidhea Dewantari Putri Muhammad Miqdad Agung Budi Sulistiyo	2020	environmental performance and CSR	FP	Size, Leverage	Indonesia 2014-2018	No result
40	Oguz Yusuf Atasel Yusuf Guneyisu Huseyin Unal	2020	Environmental Information Disclosure	FP	Profitability, Size, leverage, growth, age, cash flow	Turkey 2010-2019	-
41	Azhar Maksum Paula Tamba	2017	Environmental Performance and Intellectual Capital	FP	ROA Intellectual Capital	Indonesia 2012-2014	+
42	Anshuman Kamila Prof. Mitali Chinara	2017	Environmental Performance	FP	R&D intensity and debt equity ratio	India 2015	+
43	Malik Shahzad Shabbir & Okere Wisdom	2017	corporate social responsibility, environmental investments	FP	-	Nigeria 2011–2018	+
44	TiansenLiu YufengZhang DapengLiang	2017	environmental performance	FP	-	China 2010 - 2016	-
45	Eissa A. Al-Homaidi, Faozi A. Almaqtari, Anwar Ahmad	2017	Corporate Governance Mechanisms	FP	Size	India 2013-2016	+
46	Dayuan Li Cuicui Cao Lu Zhang Xiaohong Chen	2017	corporate environmental responsibility	FP	Firm Size Ownership Shareholder Concentration Political Connection Regions	China 2012-2014	+
47	LorenzoDal Maso FrancescoMazzi ManuelSoscia SimoneTerzani	2017	corporate environmental	FP	ROA ROE Size Leverage	2002-2014.	+

48	Feng Shen, Yunwen Ma, Run Wang, Ningning Pan & Zhiyi Meng	2017	environmental performance	FP	Growth Current ratio Debt Location Ownership	China 2009-2014	+
49	La Soa Nguyen, Manh Dung Tran, Thi Hue Dang	2017	level of environmental financial accounting practices	FP	Size Leverage Age Cash Flow Market Value	Vietnam 2013-2017	+
50	Ayu Maristiana , Lindrianasari Gamayuni Rindu Rika , Urbański Mariusz	2017	environmental and social costs disclosure	FP	Earnings Management	2018-2019	+

In this study, the Efficient Market Hypothesis (EMH) is identified as the relevant underlying theory. An efficient market is one in which stock prices always fully reflect all available information. Consistent with the Efficient Market Hypothesis, FP would affect stock prices because such information could positively influence investors' ability to make more effective decisions. Therefore, based on the above discussion and the assertion of the semi-strong form of market efficiency, this study hypothesizes that:

H₁: Financial Performance is positively associated with share price.

The discussion on institutional theory can be divided into three strands, namely Old Institutional Economics (OIE), New Institutional Economics (NIE), and New Institutional Sociology (NIS) (Scapens, 2006). According to the New Institutional Sociology (NIS), the institutional pressures that affect the systems and practices of the firm can be divided into three groups, namely mimetic, normative, and coercive. The mimetic pressure concerns the pressure of successful companies that other companies try to copy. The normative perspective examines the influence of society's norms and professional associations on firms' practices, while the coercive perspective refers to the formal regulatory pressures that result from coercive authorities legitimized, for example, by governments, states, and/or professional standard setters. Based on the coercive perspective of the New Institutional Sociology (NIS), companies adopt or adapt to the coercive policies, programs, and procedures of states and/or professional organizations in order to increase the likelihood of their profitability and survival (Carpenter & Feroz, 2001). Firms are thus influenced by pressures from their environment, such as mandated policies, procedures, or standards (Zucker, 1987).

Because financial performance, while critical, is not sufficient for a company to survive, some companies perform some sustainability services only to meet mutual expectations of their operations. Based on NIS, some companies start their sustainability activities because of the pressure to change or because of the direct interaction with stakeholders. Therefore, based on the above discussion and the assertion of NIS, this study hypothesizes that:

H₂: Sustainability reporting moderates the relationship between financial position and share price.

The objective of this study is to investigate the effect of FP on stock price. To achieve this goal, this study examines whether the independent variable Financial Performance (FP) can significantly explain the variance of the dependent variable Stock Price (SP). In addition, this study examines the effect of sustainability reporting on the relationship between FP and SP. To achieve this objective, this study investigates whether the moderating variable, sustainability reporting, moderates the relationship between the independent variable (FP) and the dependent variable (SP). Figure 1 illustrates the research framework of this study. The figure shows that 2 main hypotheses will be tested to answer the proposed 2 research objectives. This figure shows that there is a positive relationship between FP and SP (hypothesis 1). In addition to examining the relationship between FP and SP, this study also examines the moderating role of sustainability reporting on this relationship (Hypothesis 2).

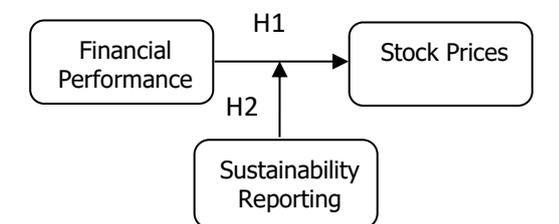


Figure 1: research Framework

METHOD

Research Design

As mentioned earlier, the main objective of this study is to investigate the effect FP on stock prices enhancement in Malaysian manufacturing companies. In addition, this study also examines the

moderating effect of sustainability reporting on this relationship. To achieve these objectives, this study applies quantitative and panel data as the research design.

Sample Selection

All companies listed on the Consumer Products & Services, Metals, Industrial Materials, Components & Equipment Sectors of Bursa Malaysia, 74 companies, were used as a sample for this study. This study covers a period from 2018 to 2019. In this study, a secondary data collection method was used because the data was obtained from reliable sources, i.e., annual reports. In addition, the extracted data was filtered according to certain requirements. This process is used to filter out the irrelevant and invalid data so that the data can be standardized. In this study, annual data were collected. 2018 was chosen as the start date and 2019 because this is the period with the most recent data available when this study began.

Research Models

This study applies a panel data research design and uses the ordinary least squares (OLS) method. To test the hypotheses (H1 and H2), 2 regression models are used. The first model examines the effect of FP on stock price. The second model looks at the moderating effect of sustainability reporting on the relationship between FP and stock price. To the extent that FP leads to an increase in stock price, β_1 is expected to be positive and significant in Model 1. To the extent that sustainability reporting moderates the relationship between FP and stock price, β_2 is expected to be positive and significant in Model 2. In addition, in line with previous studies, this study uses some control variables: Size, Leverage, Profitability, Sales, and Earnings Available for Common Stock. The regression models are applied as follows;

$$SP_{i,t} = \beta_0 + \beta_1 FP_{i,t} + \beta_2 size_{it} + \beta_3 Lev_{it} + \beta_4 Prof_{it} + \beta_5 Sale_{it} + \beta_6 EAC_{it} + \varepsilon_{i,t} \quad M$$

$$SP_{it} = \beta_0 + \beta_1 FP_{i,t} + \beta_2 SR_{i,t} + \beta_3 SR * FP_{i,t} + \beta_{4-9} CTRL_{it} \varepsilon_{i,t} \quad M$$

Where;

SP	Is stock price, collected from https://www.bursamalaysia.com/ statement of profit and loss
FP	Is financial performance, Return on Asset
Size	Is Size, natural logarithm of total assets
Lev	Is leverage, total assets on total equity
Prof	Is profitability, earnings available for common stockholder on sales (net profit margin)
SR	Is sustainability Reporting, Environmental Sustainability and Social Accountability, Dummy variable, if companies reported ES and SA, 1 otherwise 0
SR*FP	Moderating variable

RESULTS AND DISCUSSION

Descriptive statistic

Descriptive statistics provide a quantitative description of the data with the aim of summarizing the variables. Table 2 provides the descriptive statistics for all variables used in the study. Based on this Table, the average stock prices (SP) are 8.848 with the maximum value of 107.770 and minimum value of -38.100. The average FP is -1.483 with the maximum value of 1.930 and minimum value of -97.834.

Multicollinearity

Table 3 provides the correlation matrix between variables. The presence of multicollinearity could affect the precision of multiple regression analysis as it makes the estimates of regression coefficients unreliable. The correlation values of less than 0.8 show that there is no collinearity issue among variables (Gujarati & Porter, 2009). As can be seen in Table 3, it can be concluded that there are multicollinearity issues between FP and profitability, between EAC and sales and size, between sales and size. Therefore, this study drops EAC, profitability, and sale.

Ordinary Least Square Results

Table 4 presents the OLS regression results of the relationship between FP and stock prices. Consistent with the hypotheses 1, the findings show that there is a positive and significant relationship between FP and share price at 1 percent level with a coefficient value of 3.441 and t-statistic value of 7.046. The results reveal that the stock prices is increased when financial performance of a company is increased.

Table 4. Ordinary Least Square Results (Hypothesis 1)

Variables	Coefficient	t-Statistic	Prob.
FP	3.441	7.046	0.000***
LEV	-1.761	-1.646	0.092*
SIZE	0.117	0.275	0.784
D-W	1.917		
R ²	0.431		
F-stat	15.420		
P(F-stat)	0.000		
$SP_{i,t} = \beta_0 + \beta_1 FP_{i,t} + \beta_2 size_{it} + \beta_3 Lev_{it} + \varepsilon_{i,t}$			
*** represent significance at the 10, 5 and 1 percent levels, respectively			

Table 5 presents the OLS regression results of the moderating role of sustainability reporting on relationship between FP and stock prices. Consistent with the hypotheses 2, the findings show that sustainability reporting moderates the relationship between FP and stock prices at 1 percent level with a coefficient value of -2.071 and t-statistic value of 5.717. The results reveal that the sustainability reporting make the positive relationship between financial performance and stock prices, stronger.

Table 5. Ordinary Least Square Results (Hypothesis 2)

Variables	Coefficient	t-Statistic	Prob.
FP	0.236	0.194	0.846
LEV	1.346	1.224	0.223
SIZE	0.182	0.670	0.504
SR	1.737	1.912	0.058**
P*SR	2.071	5.717	0.000***
R ²	0.504		
F-stat	28.840		
P(F-stat)	0.000		

D-W 1.790

$$SP_{it} = \beta_0 + \beta_1 FP_{i,t} + \beta_2 SR_{i,t} + \beta_3 SR * FP_{i,t} + \beta_4 CTRL_{it} \varepsilon_{i,t}$$

*** represent significance at the 10, 5 and 1 percent levels, respectively

Table 6. Descriptive Statistic

	SP	FP	EAC	LEV	Prof	SALE	SIZE
Mean	8.848	-1.483	13.557	0.974	-0.089	16.551	16.921
Median	4.350	0.013	14.422	0.444	0.014	17.339	18.242
Maximum	107.770	1.930	20.183	33.104	0.889	23.247	24.478
Minimum	-38.100	-97.834	5.976	0.021	-8.496	9.590	10.108
Std. Dev.	18.098	10.909	3.596	2.819	0.819	3.279	3.228
Observations	148	148	148	148	148	148	148

Table 7. Correlation matrix results

	SP	FP	EAC	LEV	PROF	SALE	SIZE
SP	1.000						
FP	0.212	1.000					
EAC	-0.051	-0.137	1.000				
LEV	-0.180	-0.608	0.094	1.000			
PROF	0.220	0.924	-0.111	-0.794	1.000		
SALE	0.012	0.039	0.911	-0.007	0.050	1.000	
SIZE	-0.025	-0.059	0.927	0.029	-0.048	0.975	1.000

The adjusted R^2 of two models 1 and 2 are 0.43 and 0.50. This means for the model 1, 43 percent of the changes in stock prices can be explained by the applied explanatory variables (FP, Size and Leverage). For the model 2, 50 percent of the changes in stock prices can be explained by the applied explanatory variables (FP, Size and Leverage). To ensure the accuracy of the model, the F-Statistic of the model is checked. Generally, a significant F-statistic of a model indicates whether the model is specified properly or not. As can be seen in Table 4 and 5, the F-statistic for the model is significant in 1% level.

CONCLUSION

This study analyses the specified linear regression models using the ordinary least squares (OLS) method to test the hypotheses using a sample of annual data from Consumer Products & Services, Metals, Industrial Materials, Components & Equipment Sectors in Malaysia. The data collected are from reliable sources and are already available. Annual data was collected for this study, 2018 was chosen as the start date, and 2019 was selected because it is the period with the most recent data available when this study began. The main variables in this study are stock price (dependent variable), financial performance (FP) (independent variable), and sustainability reporting (moderator). Two regression models were used to analyse the panel data. The results of the two models indicate that stock price increases when a company's financial performance increases. The results also show that sustainability reporting moderates the relationship between FP and stock price. These results are consistent with the assertion of the efficient market hypothesis and institutional theory. As with all empirical studies, there are limitations to this study. Covid-19 is started in Malaysia for less than one year, so access to data sources such as DATASTREAM was limited. Therefore, for future studies, this study suggests a study with more data and a comparative study looking at before and after Covid-19.

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