

Conference Paper

Stock Index Performance of SRIKEHATI 2014: Case Study of ISAT and MEDC

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Abstract

This study analyzes the returns volatility of ISAT and MEDC in context of green investment. These two stocks are member of SRIKEHATI index. SRIKEHATI is an index containing stocks that concern on environment, social and governance. The period of analysis cover 2009-2014 the focus of the study is on three measures of price earning ratio (PER) and fundamental performance indicator, environment activities disclosure in sustainability report was done. Results show that return volatility of ISAT affects return index of SRIKEHATI significantly, but not for MEDC. ISAT has experienced decreasing profit that continued to a loss, inconsistent reporting environment activities in sustainability report. MEDC has experienced decreasing of profit but did not lead into a loss. MEDC is also consistent in reporting environment-related activities through publishing sustainability reports.

Keywords: green finance, green investment, SRI-KEHATI index, ISAT, MEDC.

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1. Introduction

Global warming and climate change have given quite a significant impact on the balance of the economy. A foundation that cares for the environments, Kehati Foundation, liaised with Indonesian Stock Exchange (ISE) launched the SRIKEHATI index that refers on sustainable and responsible investment (SRI) on July 8th, 2009. SRIKEHATI index aims to help investors or the community who wants to invest in stocks that are owned by positive prospects that prioritize mindfulness towards the environment. Selected companies in SRIKEHATI index are considered to have various forms considerations toward the environment, company management, community involvement, human resources, human rights, and ethical business attitudes considerations within the business that are accepted at an international level [15].

Companies that were selected into the SRIKEHATI index have to pass three-stage selection processes. The first stage is the filtering stage for businesses that do not operate in the area of pesticide, nuclear, weapon, tobacco, alcohol, pornography, casino,

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and genetically modified organism (GMO). The second selection stage considers the financial aspects, such as of more than IDR 1 trillion market capitalization value, total asset of more than IDR 1 trillion, free float rate value of more than 10% (free float is the public owned portion of the share), and positive price earnings ratio (PER) value. The third selection stage considers the fundamentals of the business management, environment, community service, business attitude, human resource and human rights [15, 22]. The evaluation and the exchange of input and output of SRIKEHATI stocks index are performed every 6 months on May and November [22].

2. Methods

This study examines the stock index of SRIKEHATI from 2009 to 2014. The two companies are used as the case study, namely PT. Indosat Tbk and PT. Medco Energi Tbk were declined from SRIKEHATI index 2014. The observation of financial performance of ISAT and MEDC follow the three-stage selection processes SRIKEHATI index. PER (price earnings ratio) shows how many investors wants invest at those profit amount reported, PERs higher ratio is stronger growth prospect [2]. Fundamental performance observed by environment and social activities disclosure.

The following regression model tests the effect of ISAT and MEDC return stock on the index return of SRIKEHATI:

$$r_{SRIKEHATI} = \alpha_i + \beta_a r_{ISAT} + \beta_b r_{MEDC} + \epsilon_i \quad (1)$$

$r_{SRIKEHATI}$ is the monthly trading-day return of SRI-KEHATI index

r_{ISAT} is the monthly trading-day return of PT Indosat Tbk.

r_{MEDC} is the monthly trading-day return of PT Medco Energi Indonesia Tbk.

α_i is the intercept

ϵ_i is the error coefficient

3. Results

The result of the F-Test in Table 1 showed that both ISAT stock return and MEDC stock return affects the return index of SRIKEHATI significantly from the period of July 2009 to July 2014. The result of T-test shows independent variabel stock return of ISAT affects stock market return of SRIKEHATI significantly from the period of July 2009 to July 2014. Stock return of MEDC not affects stock market return of SRIKEHATI. The coefficient correlation test showed that the independent variable explained 36.69% of

TABLE 1: F-test for Return Portfolio Regression Model.

Variable	F-test	T-test	
		Coefficient	p-value
Intercept	*0,00000174	0,01675125	0,002670193
Return ISAT		0,335293451	*0,000000847
Return MEDC		0,090464769	0,121407773

Notes: *significantly $\alpha = 0,05$ or $< 0,05$

Source: Yahoo Finance, Bank Indonesia, prepared by author.

the variance on the dependent variables while the rest are explained by extraneous variables of the regression.

TABLE 2: The Result of the Correlation Test for Return Portfolio Regression Model.

Correlation	<i>r</i> SRIKEHATI
rSRIKEHATI	1
rISAT	0,583122798
rMEDC	0,187367749

Source: Yahoo Finance, Bank Indonesia, IDX, prepared by author.

The correlation test in Table 2 indicated a moderately strong correlation between the stock return of ISAT and the dependent variable of SRIKEHATI index, $r = 0,58$ whilst, the correlation with independent variable of MEDC stock return is non-significant, $r = 0,18$. This result suggests that Indosat stock is the one that significantly impact the event.

4. Discussion

4.1. Financial and fundamental performance of ISAT

According to the summary of financial performance in Table 3, Indosat had experienced a sharp decrease on its net profit margin, which led to a loss that consequently reduces the PER and earning per share (EPS). Indosat's 2011 annual report stated that a tree-planting program was held to support the government's 1 million tree-planting program and Base Transceiver Station (BTS) that are environmentally friendly. The use of cost-efficient battery as electric energy supply reserves replaced one of the two diesel power plants in 2011 where battery is used in 760 locations. Furthermore, to optimize the performance of the battery, Charge Discharger Controller (CDC) switch was implemented. Beyond cost-saving strategy, the purpose of the implementation is to reduce carbon

waste. The use of fluidic battery is to replace the traditional lead acid battery, where it produces toxic waste that is dangerous if irresponsibly disposed.

In 2012, Indosat built more than 100 solar powered BTS in regions located within 5 hours distance from cities or remote areas to replace the use of diesel power. In 2013, Indosat report these programs and still reported in the 2014 [11]. One million planting activity reported in 2010-2011 was done [9]. Budget allocation for Indonesia Hijau as shown in Indosat's annual report 2011 [9], takes over 1% in 2010 and 0% in 2011. The disclosure of environment and social activities in sustainability report did not specifically mention the type and the costs spent for these activities.

TABLE 3: Financial Performance of ISAT and MEDC.

Indicators	ISAT	MEDC
Market Capitalization	37.222.444.475.000	8.564.400.226.500
Total Assets (billion rupiah)	53.254.841	33.607.629
Free Float Rate	20,71%	18,83%
PER		
2009	17,14	38,65
2010	40,82	11,29
2011	32,91	8,45
2012	40,02	92,26
2013	-8,11	45,33
2014	12,48	82,83
EPS		
2009	276	63
2010	132	299
2011	172	287
2012	89,7	36,54
2013	-511,97	46,33
2014	-365,7	37,74
NPM:		
2009	0,08	0,03
2010	0,04	0,1
2011	0,05	0,08
2012	2,17	2,01
2013	-11,18	1,8
2014	-7,71	1,83

Source: BEI, prepared by the author

4.2. Financial and fundamental performance of MEDC

According to the summary of financial performance in Table 3, Medco experienced an insignificant increase and decrease of net profit margin, and similarly with PER. However, Medco's EPS value plunged drastically although it did not go to a position of loss. As stated in Medco Energi's 2014 sustainability report, the energy consumption report stated that Medco Energi's energy consumption went down from 8.06-terajoule per barrel oil equivalent (TJ/BOE) in 2010 to 7.62 TJ/BOE by the end of 2014.

Medco Energi had successfully reduce their conventional fuel oil consumption by using gas fuel and biodiesel, making an effort to using LED lights, solar power, to support their operations. Although there is an increase of energy consumption, the intensity of the energy consumption could be suppressed by 7% annually. The 2 million rupiah investment on Aset Rimau has channeled 2.235-kiloliter biodiesel for operational vehicles until the end of 2014. The implementation of energy-efficient program was able to suppress the amount of greenhouse gas emission as high as 29.74% as compared to conventional operations method.

Medco Energi has built a manufacturing facility of compost through conventional and modern methods using compost tools. Compost is utilized for greening activities. This activity is able to reduce around 7.11% of the total in organic waste amount that is produced by Aset Rimau. Medco Energi advocates a number of local government supported national projects, such as Mangrove and Proboscis Monkey Conservation Reserves in Tarakan City, rehabilitation of Rambang Dangku Wildlife Reserves with the Conservation Agencies of Natural Resources of South Sumatra.

Medco is committed to reducing carbon dioxide emission from 30 million tons CO₂e in 2010 into 5 million tons CO₂e in 2012 [12]. It was decline continuously at about 2 million tons CO₂e in 2013 and 600.000 tons CO₂e in 2014 [12]. Medco Energi reported environment-related activities and have consistently support greening programs. As a company where their production process is always linked to the availability of natural resources, Medco have performed their responsibility to help guard and preserve the environment as well as providing transparency of such information to the public. Medco awarded PROPER Emas Awards by Indonesian Minister of Environment for assets Rimau since 2011 to 2014 [12].

A study about sustainability by Eccles, Ioannou and Serafeim (2016) stated that "high-sustainability" companies such Medco Energi is superior than "low-sustainability" both in securities market and accounting measurement, while market does not want that. The research show that "high-sustainability" companies have better performance of B2C

(business-to-costumer), branding competitiveness, human capital and dependency on natural resources. Zulkafli, Ahmad, and Ermal (2016) state that SRIKEHATI index securities performance has underperform annual mean return, ESG (environment, social, governance) screening cause additional administration fee. The risk of SRIKEHATI index securities higher than conventional index securities Jakarta Composite Index, filtering process of green investment SRIKEHATI index securities makes higher volatility. Alot of investors attract to invest in green project/assets but it is difficult to find disclosure information about environment and social activities, those will rise search costs. SRI index is one of performance assesments tools related to environment. The lack of information and policies makes investors not aware to external risk energy renewal and energy savings [7].

5. Conclusion

The volatility of Indosat stock return affects the index return of SRIKEHATI significantly. Indosat experienced a continuous decrease of profit that lead to a loss from year 2009 to 2014. This is related to the PER performance where the value continues to drop to the negatives and the inconsistency of reporting environment activities. The volatility of Medco stock returns did not affect SRIKEHATI index return significantly. Medco experienced a decrease of profit, however, it did not lead to a loss. PER value experienced a drastic decline. Medco is consistent with its ESG reporting by publishing sustainability reports that encompasses environmentally supportive and preserving programs. Medco compete with other "greened" BEI listed companies whom have good financial performance, to be listed in SRIKEHATI index.

This study show that the volatility of financial performance produced by net profit margin, earnings per share and price earnings ratio, the publication of programs relating to the environment, and volatility of stock return affects whether the company is accepted or declined from SRIKEHATI company index list.

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Conflict of Interest

The authors have no conflict of interest to declare.

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