Identify the CAPM And Company Return To Determine Efficient Or Non-Efficient In The Business Support Services Industry

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Abstrak— Investment is an effective way to develop wealth and long-term financial goals, so investors must make the right decisions for the shares that want to be managed in order to get profitable returns. In making investment decisions, investors must consider various factors such as market conditions, company performance, and economic trends. The objectives of this research are: (1) To help investors choose efficient and inefficient stocks, (2) Investors know the stocks that have optimal returns and appropriate risks, (3) Investors learn about CAPM methods in determining the best investment decisions. Capital Asset Pricing Model (CAPM) is a model for estimating the rate of return obtained from risk securities or as a measure in evaluating the return rate of an investment. The population in this study is a company listed on the Indonesian Stock Exchange, i.e. with sub-industry shares of Business Support Services. These stocks are Astra Graphia Tbk (ASGR), Dyandra Media International Tbk (DYAN), Island Concepts Indonesia Tbk (ICON), and Multifiling Partners Indonesia Tbk (MFMI). The selection criterion in this study is to select efficient stocks where individual return rate > expected return rate Ri>E(Re). Efficient stock collection should be a priority in investment decisions, only efficient shares can be purchased. The results of this research show that: There are 1 shares that are efficient in the business support services industry sector namely ASGR. These shares have a value of Ri>E(Re), the investment decision that must be taken by the investor is to buy efficient shares. Based on data analysis, there is a non-linear relationship between systematic risk and expected share returns.

Keyword : CAPM; beta; stock; stock undervalued; stock overvalued.

INTRODUCTION

Investment is an effective way to develop wealth to long-term financial goals. In the financial world, investment refers to the allocation of funds in an asset or instrument that is expected to provide a profitable return in the future.

The primary objective of investing is to an optimal return rate with a suitable level of risk. Investors strive to find investment opportunities that provide a high return rate, but still consider the risks that may arise. In making investment decisions, investors must consider various factors such as market conditions, company performance, and economic trends.

In the scope of investments, there are various instruments or assets that can be selected, such as stocks, bonds, trust funds, property, and so on. Each instrument has different characteristics and risks, as well as varying potential returns. It is important for investors to understand investment valuation methods and models, such as the CAPM (Capital Asset Pricing Model), which helps in determining expected returns and evaluating investment risks and can be considered according to investor's purposes and risk profiles. In making investment decisions, it is important that investors understand the method and model for valuing investments, like CAPM. CAPM helps in defining expected return rates and assessing investment risk. By understanding this model, investors can make more informed and rational investment decisions. In addition, it is

also important for investors to pay attention to economic and government policy factors that can affect investment performance. Economic growth, political stability, fiscal and monetary policy, as well as global market conditions are some of the factors to consider in making investment decisions.

In Indonesia, the government has committed to continuously improving the investment climate and infrastructure development to boost economic growth. With this effort, Indonesia is expected to be an attractive investment destination for domestic and international investors.

Stock

Stock is a kind of proof of ownership of a company/business. Proof of capital participation in a company, by buying shares means investing capital/funds that will be used by the management to finance the company's operational activities (Suratna, Hendro Widjanarko, Tri Wibawa,2020).

Return Investment

Return on stock is the rate of return on investment, the difference between expected return and actually received return is a risk that must always be considered in the investment process (Eduardus Tandelilin,2014).

Beta (β) Investment Risk Value

Stock risk is the probability that the actual return will differ from the predicted return. More daring investors will take a bigger investment risk, with the prospect of a higher rate of return. (Eduardus Tandelilin,2014)

Capital Asset Pricing Model (CAPM)

The Capital Asset Pricing Model (CAPM) is a model used to determine the value of an asset or investment. This model assumes that investors must consider two key factors while developing their investment thesis: expected growth rate and risk associated with the investment.

In CAPM, the rate of growth that is expected from a certain asset is calculated by using a formula that accounts for risk, market premi, and aset beta. The risk-free return rate is the predicted return rate on a risk-free investment, such as government bonds.

RESEARCH METHODS

The method of analysis used is quantitative deskriptif. Descriptive research is a systematic, factual and accurate description of the facts and characteristics of a population or region. (Suryabrata,1983). The population in this study is a company listed on the Indonesian Stock with sub-industru Business Support Services period of Nov 1, 2022 – Oct 1, 2023. This is accomplished by using the Microsoft Excel application. An examination of the CAPM method for determining investment returns is carried out as follows:

a)   Collected data closing market periode Nov 1, 2022 – Oct 1, 2023 by https://finance.yahoo.com/

b)   Calculating the rate of return on individual stocks (Ri).

$$Ri \quad = \quad \frac{CP_t - CP_{t\text{-}1}}{CP_{t\text{-}1}}$$

Description:
Ri   = Stock Return
CP_t = Closing price of a stock in a certain period
CP_{t-1} = Closing price of a stock in the previous period

c)   Calculating the rate of Market Return (Rm).

$$Rm \quad = \quad \frac{IHSG_t - IHSG_{t-1}}{IHSG_{t-1}}$$

Description:

Rm = Market Return

IHSG$_t$ = Closing price of an index in a certain period

IHSG$_{t-1}$= Closing price of an index in the previous period

d) Calculating Beta stock

$$\beta = \frac{Co(Ri, Rm)}{Var(Rm)}$$

Description:

ß = Beta/ Covariance

Cov(Ri, Rm) = the covariance of the market's return and the asset's return.

Var (Rm) = Market's variance

If, β <1, the price sensitivity of the stock is lower than that of the IHSG. Whereas β >1, the price of the share will be higher, above the market price.

e) Calculating of Risk-free rate by BI rate https://www.bps.go.id/indicator/13/379/1/bi-rate.html for the year 2023, the BI rate is 5.75%

f) Calculating the expected return on investment according to CAPM.

E(Re) = Rf + β [E(Rm)-Rf]

Description:

Re = Expected Return or Cost of Equity

Rf = Risk-free rate

ß = Beta coefficient

E(Rm – Rf) = Expected Equity Risk Premium on the market

Calculation of stocks based on individual returns and expected returns is classified as efficient stocks and inefficient stock. Efficient stock to buy (Undervalued) are stocks with an individual return rate greater than the expected return rate. [Ri > E (Re)]. Whereas Inefficient stock (Overvalued) are stocks whose individual return rate is lower than the expected return rate. [Ri < E (Re)].

RESULT & DISCUSSION

1. **The research sample was selected from 4 (four) investment companies in Indonesia listed on the Indonesian Stock Exchange on the sub-industry Business Support Services:**

No.	Sub Industry	Code	Stock Name
1.	Business Support Services	ASGR	Astra Graphia Tbk
2.	Business Support Services	DYAN	Dyandra Media International Tbk
3.	Business Support Services	ICON	Island Concepts Indonesia Tbk
4.	Business Support Services	MFMI	Multifiling Mitra Indonesia Tbk

Table 1. List of 4 (four) Companies of Business Support Services industry listed on Indonesia Stock Exchange (BEI)

2. **Collected data closing market periode Nov 1, 2022 – Oct 1, 2023 by https://finance.yahoo.com/ and calculating the rate of return on individual stocks (Ri).**

No.	Code	Ri
1.	ASGR	0,007

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2.	DYAN	0,182
3.	ICON	-0,257
4.	MFMI	-0,089

Table 2. List of result return individual stock 4 (four)Companies of Business Support Services industry

3. Calculating the rate of Market Return (Rm).

Date	Close*	Return
01-Nov-22	7.081	IHSG
01-Dec-22	6850	-0,033
01-Jan-23	6.839	-0,002
01-Feb-23	6.843	0,001
01-Mar-23	6.805	-0,006
01-Apr-23	6.915	0,016
01-May-23	6.633	-0,041
01-Jun-23	6.661	0,004
01-Jul-23	6.931	0,041
01-Aug-23	6.953	0,003
01-Sep-23	6.939	-0,002
01-Oct-23	6.926	-0,002
Results		
Market Return / Month		-0,002
Market Return / Year (Rm)		**-0,020**

Table 3. Market Return Result JKSE period Nov 1, 2022 – Oct 1, 2023

4. Result of Analysis of Calculation of System Risk of Individual Stock and Expected Return.

Code	Ri	Beta cov	ERP= E(Rm)-Rf	CAPM (Re)	Classification	Remarks
ASGR	0,007	1,560	-0,077	-0,063	Ri > E (Re)	Efficient
DYAN	0,182	-3,935	-0,077	0,362	Ri < E (Re)	Not Efficient
ICON	-0,257	0,730	-0,077	0,001	Ri < E (Re)	Not Efficient
MFMI	-0,089	1,308	-0,077	-0,044	Ri < E (Re)	Not Efficient

Table 4. Result of Analysis of Calculation of System Risk of Individual Stock and Expected Return.

Analysing the data above, it is possible to conclude that, among the 4 (four) Indonesian investment company listed on the Indonesian Stock Exchange in the subindustry Business Support Services, there is 1 (one) stock that is a good buy (undervalued) based on the analysis [Ri>E(Re)] is ASGR. In addition, there are 3 (three) stocks that are not efficient (overvalued) and represent [Ri<E(Re)] are DYAN, ICON, and MFMI.

CONCLUSION

According to the findings of this study, the Capital Asset Pricing Model (CAPM) can help investors understand their investment goals. CAPM assists investors in estimating expected returns while taking into account potential risks.

Every investor has a unique set of characteristics that he or she employs in order to select investments with lower risk. This is done by comparing two types of investments that provide comparable returns while posing different risks. The study shows that investors can use CAPM to calculate the relationship between risk and return, risk and return that are

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expected to have a smooth and linear relationship. As a result, when the risk of a particular asset increases, so does the rate of return that can be expected from that asset. Aside from that, beta is used in the CAPM method as a guideline to balance the relationship between the rate of return on investment and the rate of return on the market. Investors must be rational and capable of developing an investment thesis by analyzing the current situation, designing an appropriate portfolio, discontinuing investment activities, and implementing investment strategies.

SUGGESTION

This research project is intended to serve as a reference and source of information for investors and potential investors who plan to invest in securities. It is critical for investors to invest a portion of their money in efficient securities so that the risks associated with the investment can be minimized as much as possible, allowing the investor to get the desired return.

This CAPM method research is expected to serve as a reference for future research into the relationship between risk and return on financial assets in capital markets.

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