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| RESEARCH ARTICLE

Investment Decision Using Capital Asset Pricing Model (CAPM) in Indonesia's Banking Sector

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| ABSTRACT
The focus of this research was to determine and investigate the application of the Capital Asset Pricing Modeling (CAPM) technique in analyzing investment decisions in particular banking stocks that specialize in digital banking operating models. Investors generally follow the IT or digital sector (Tech stocks) due to the sector's track record of delivering high returns and the promise for even greater returns in the future. In the banking sector, investors continue to pursue digital bank stocks as their holdings because they believe they may create value and expand. Six digital banking stocks were chosen for this study, all of which are listed on the Indonesian Stock Exchange and have an observation period of April 2021 to March 2022. These stocks are Bank Jago Tbk, Bank Neo Commerce Tbk, Bank Danamon Tbk, Bank Permata Tbk, Bank BTPN Tbk, and Bank OCBC NISP Tbk. This research uses linear regression analysis to determine the beta coefficient for the Capital Asset Pricing Modeling (CAPM) method and compares the expected return to the stock market's rate of return during the observation period in order to further differentiate between undervalued and overvalued stocks. The study found that two of the six digital banking companies had higher returns than expected (undervalued/efficient stocks), namely Bank Jago and Bank Neo Commerce, with the remaining four categorized as overvalued/inefficient.

| KEYWORDS

Risk, CAPM (Capital Asset Pricing Model), expected return, beta, undervalued, overvalued.

| ARTICLE INFORMATION

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1. Introduction

For investors, managers, analysts, and researchers, accurate stock valuation is critical. They are putting in efforts to appraise businesses and identify undervalued stocks for investment. In order to build value for shareholders, managers rely on proper share valuation all of the time. The Capital Asset Pricing Model (CAPM) is one of the methodologies that may be used to determine the risk and rate of return of a financial asset. The CAPM was developed to aid investors in making stock selection decisions and decreasing the risk of their investments. The capital asset pricing model (CAPM) considers an asset's sensitivity to systematic or market risk, which is commonly represented in the stock market by the beta value. CAPM can assist investors in comprehending difficult market situations, avoiding investment risk, and calculating the amount of return they will receive, which is especially important in this pandemic (Hasan, 2019).

Every investing opportunity entails some level of risk. Risk-Based Modeling takes systematic risk into account in addition to other variables. Systemic risk refers to the probability that an investor would experience losses as a result of variables impacting the overall performance of the financial markets and is defined as follows: recessions, political upheaval, interest rate changes, natural disasters, and terrorist attacks are all examples of risks to consider. For individual securities, we use the security market line (SML) and its link to expected return and systematic risk, as indicated by the beta coefficient (Suraj et al., 2020). The Capital Asset Pricing Model, frequently abbreviated as CAPM, was established by William Sharpe and John Litner in 1964 and 1965, respectively. It is a model that describes the relationship between risk and expected return and is used to price risky securities. This model considers

the asset's sensitivity to systematic risk, which is quantified by beta, as well as the market's expected return and the return on a risk-free investment. It is used to determine the value of individual stocks and portfolios using the CAPM model.

During the preceding four decades, the usage of such models to anticipate asset returns under normal market conditions has expanded dramatically. The term normal market refers to an environment in which equity prices are unaffected by mood and in which market participants do not consistently over-or under-valued shares. In these circumstances, markets act like efficient marketplaces (Fama, 1998). According to the argument, because financial markets operate in such a way that market prices react rapidly to new information, there are no arbitrage opportunities available that would allow investors to earn above-average profits while not assuming above-average risk. This is consistent with the view that price fluctuations proceed in a random fashion. If fresh information emerges arbitrarily, market prices will follow suit, creating an uncertain market except for its long-term increasing trend. CAPMs, or modified versions of them, are based on the concept of building a mean-variance efficient market portfolio. The CAPM's premise uses the assumption that all investors have the same perspective on investments, particularly when estimating the expected return on a firm, which results in a weakness in reality because there is no single proxy that can adequately represent all perspectives. Neither the returns on a single stock nor the returns on an index can be explained entirely by one component of the index. This paper discusses utilizing CAPM to determine the intrinsic worth of undervalued stocks in the digital banking industry in the Jakarta stock market as a suggestion for an optimal portfolio.

The covid-19 pandemic, which began in February 2020, has significantly impacted the world and Indonesian economies, mainly on financial markets such as bonds, stocks, and commodities markets (Hongsakulvasu & Liammukda, 2020). In addition to the fact that stock market returns are sensitive to big events (Al-Awadhi et al., 2020), external events might have a detrimental impact on the economy and harm investor sentiment (Khanthavit, 2020). According to Goodell (2020), these effects emerge from the pandemic's added costs, which range from healthcare, job productivity and opportunity, economic activity, foreign investment, and tourism. If an economic crisis occurs, the banking industry will also be vulnerable, with foreclosures, a rise in nonperforming loans, and credit default concerns.

The spread of this infectious disease will surely have a negative impact on the health and well-being of the community, as well as the health of the economy (Liu et al., 2020). In this study, the data reveal that global stock markets have been degrading at an alarming rate, with the predominance of negative anomalous returns confirming a gloomy investor mentality. This COVID-19 pandemic is a novel threat with heightened investor risk and uncertainty. Media coverage influenced people's emotions, generating worry and fear, influencing investor decisions, risk-averse behavior, and pessimism.

Banks have been pushed to adopt digital technologies to compensate for branch closures due to the COVID-19 crisis. Even before the epidemic struck, the banking industry recognized the importance of innovation strategy and digital banking. As technology advances, customer expectations for banking have increased as well, partly in response to the instant and personalized services offered by Tech firms and fintech. The COVID-19 pandemic has increased banks' and customers' reliance on digital tools and processes.

The current wave of digital bank licenses has been seen around Southeast Asia. Indonesia's digital banking sector has undergone significant growth during the last 24 months. As a result, it's unsurprising that many tech firms are investing in digital banking, as evidenced by Gojek's backing of Bank Jago and Akulaku's backing of Bank Neo Commerce. The bank's transformation into a digital bank, In the long run, will be a critical step toward increasing the sector's profitability and returns.

2. Literature Review:

2.1 Investment

In finance, an investment is a financial asset or thing that is purchased with the intent of reaping various benefits in the future, such as a growth in the asset's value over time or both (Tandelilin, 2010). Investing is concerned with the expenditure of some capital today (such as time and effort, money, or an asset) with the intention of receiving a greater profit in the future than what was first spent. The term "investment" refers to any medium or instrument that is used to generate future revenue, including bonds, stock options, real estate holdings, and businesses. Investing is not the same as saving or speculating. Saving is the act of accumulating money for future use and involves no risk. In contrast, investment is the act of leveraging funds to achieve a potential future gain and consists of some risk. Unlike investing, speculation is the act of seeking to profit from market inefficiencies for a short-term profit.

Making optimal investment decisions is essential for maximizing shareholder value. Investors make value-enhancing investment decisions in a frictionless world by taking projects with positive net present values. In reality, investment distortions (inefficiencies) do exist due to the presence of various external events.

A capital market is a place where investment instruments are traded. The definition of capital market is more specifically defined as activities related to the public offering and trading of securities in which buyers and sellers engage in trade (buying and selling)

of financial securities such as bonds, stocks, and other types of securities, according to the definition. Individuals and institutions participate in the trade, which is conducted on an exchange. Because of the existence of this capital market, persons who have extra funds can put those monies to work with the aim of earning a profit.

Assuming no friction exists in the market, the capital market consists of a continuous flow of investors who purchase and sell financial assets. On the other side, market trends affect investor behavior. For instance, post-election uncertainty or vagueness in newly elected governments and a shattering event such as a pandemic can cause investors to panic, resulting in a significant decline in stock prices. The Indonesia Stock Exchange Composite Stock Price Index (IHSG) has decreased since March 20 due to Covid-19; nevertheless, the stock has now climbed as the economy has recovered. In essence, capital market investment is similar to other types of investment; the difference is that capital market investment in goods used as investment instruments is referred to as securities.

The existence of a capital market or stock market expands the available sources of funding for a business and investment options, which means the chance to secure additional funding and liquidity for the company is increased even further. Stock markets are vital components of a free-market economy because they enable democratized access to trading for investors. In relation to the capital market's role and function, the demand for relevant information in capital market investments is also increasing.

2.2 Stocks Investment

Stock investment is the ownership or purchase of company shares to benefit from the company's future success through increased stock price (capital growth) and income from a portion of the company's profits (dividend). The liquidity provided by an exchange, which enables holders of securities to sell them quickly and easily, is an attractive characteristic of investing in stocks instead of other less liquid investments such as real estate and other immovable assets.

The price of stocks and other assets has historically been a significant aspect of the dynamics of economic indicators. An economy that is seeing a gain in the stock market is considered on the rise. Therefore, the stock market is sometimes seen as a significant measure of an economy's strength and progress.

2.3 Return of Investment

A return is a change in the price of an asset, an investment, or a project over time, expressed as a percentage change in the price or as a percentage change in the price of the asset, investment, or project. A positive return signifies a profit, whereas a negative return indicates a profit loss (Biktimirov et al., 2003).

In investment, there are some types of return that are generally used in the market (Hartono, 2017): realized return, expected return, and total return. A realized return has already occurred. Calculated using previous data, realized returns can also forecast future expectations and risks (Pristiwantiyasih, 2020). Realized return of individual stock formula can be formulated by comparing P(t) and P(t-1) divided by P(t-1). P(t) is the price of the stock in period t, and P(t-1) is the price of the stock in period t-1 (t-1). The projected return is the profit that investors anticipate obtaining in the future; in this case, it has yet to materialize. Capital gain (loss) and dividend are included in the total return on an investment over a specific period, as well as the ratio of periodic cash receipts to the investment price over that same period (Jogiyanto, 2009).

2.4 Risk of Investment

In investment, the risk is defined as the probability of the actual profit deviation from the expected actual rate of return, hence reducing the profit or creating losses for the investor (Hundal et al., 2019). These risks are classified into two: Systematic risk and Unsystematic risk. Systematic risk is risks posed by external factors such as macroeconomic conditions, political instability, or natural calamities that affect the entire market. Systematic risk is also called non-diversifiable risk. Unsystematic risk is the risk related to changes in the risk of a specific condition of the industry and can be reduced or eliminated by diversifying the investment.

Beta (ß) is used to calculate the volatility or fluctuation in return between an individual stock and the general market over a specified time period. The beta of security can be estimated using estimating techniques that use historical data and are then used to forecast future betas. The use of historical data in calculating beta securities is also a weakness of the beta itself because the data used is past and has occurred. The assumption that beta in the future will be the same as a beta in the past is also a fault of the beta itself.

Whenever fluctuations in the return of a security or portfolio statistically reflect changes in the return amount of the stocks, the beta of the asset or portfolio is said to be worth one (beta =1). It also implies that the systematic risk associated with a security or portfolio is the same as the market risk associated with the security or portfolio. As a result, anticipated securities have an expected return that is the same as the expected return of the market portfolio (or vice versa) (Agouram et al., 2020). While a stock with a beta greater than one can be considered riskier than the market (having a large standard deviation), conversely, a firm with a beta less than one can be considered to have a risk that is lower than the market.

2.5 Capital Asset Pricing Model

Sharpe (1964) established a capital asset pricing model (CAPM) that dealt with the valuation of individual assets. This theoretical model is constructed based on simplifying assumptions about investors and financially feasible investment opportunities. When assets are pooled together in a portfolio, unsystematic risk is minimized, and only systematic risks are valued. In equilibrium, each asset's expected return E(Ri) is a function linear of systematic risk itself. CAPM can assist investors in calculating risks which is systematic risk, and compare with the rate of return in a stable economic condition. An efficient investment provides a specific amount of risk with a certain level of maximum rewards or a certain return level with a minimal risk level. For example, suppose two investment ideas offer the same return but have a different degree of risk. In that case, investors will rationally choose an investment with a lower risk level.

The CAPM formula:

Expected Return, E(Ri) = Rf + ß * (Rm – Rf)

E(Ri) : expected rate of return
ß (Beta): volatility of return against market or systematic risk
Rf : risk-free rate of return
Rm : market return

Various assumptions must be made when employing the CAPM Model (Jogiyanto, 2008). First, investors will diversify their portfolios and select the most optimal portfolios based on the most efficient portfolio lines available. Second, the investors will have equal probability distributions that have invested for a similar time horizon and can borrow or offer funds at a risk-free rate of return to one another. Third, the market is well-balanced, and there are no n fees, income taxes, or inflation in the transaction.

The capital market line (CML) or the security market line (SML) can both be used to illustrate the link between the magnitude of risk and the return obtained by the CAPM technique (SML). Capital Market Lines are a visual representation of all conceivable combinations of efficient portfolios comprised of risk assets and risk-free assets, which allow each investor to invest and perform portfolio optimization. Regardless of whether a security is efficient or not, the Security Market Line (SML) displays the relationship between risk and benefit levels for all securities. SML is a line in the CAPM model that depicts the trade-off between risk and expected return for a given asset or portfolio of assets. Please see Fig.1 for an explanation.

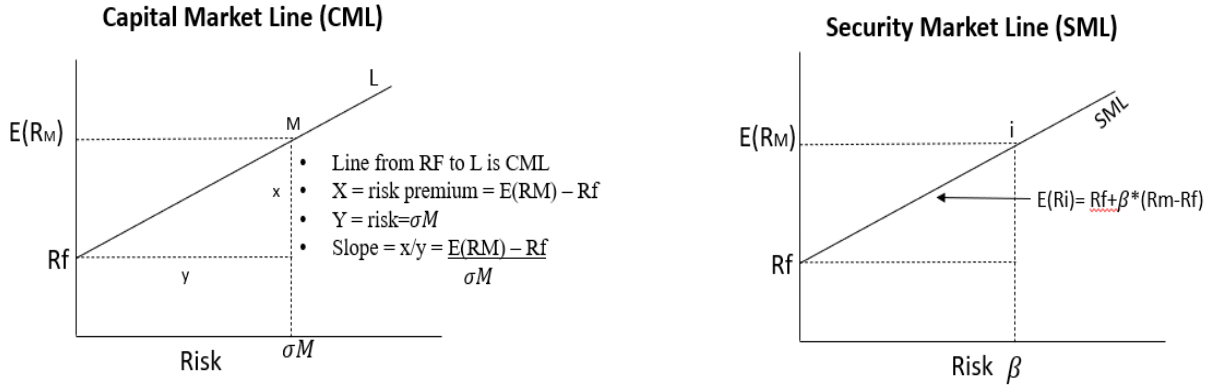

Figure 1. Capital Market Line and Security Market Line

Based on the CML picture, if the market portfolio only contains risk-free assets, then the risk will be equal to zero (σp = 0), and the expected return is the same as risk-free (Rf). In addition, if the portfolio consists of all existing assets, then the risk is equal to (σm) with an expected return of E (RM). The difference between [E (RM) - Rf] is what we call the market portfolio risk premium.

Referring to the SML picture, it can be concluded that the additional expected return for individual securities is by reason of the additional risk of individual securities as measured by beta. The beta determines the additional expected return for individual securities assuming that for a perfectly diversified portfolio, unsystematic risk tends to disappear, and only systematic risk is measured in beta. Considering single security in the portfolio, if it is plotted above the SML, it's undervalued security as individual returns greater than the expected level E(Ri). In other words, the stock price is efficient. On the contrary, if it is plotted below SML,

then the stock is inefficient as the individual return is lower than expected level E(Ri). In this case, generally, investors will sell shares before the stock price falls.

3. Data Observation

The stocks of firms in the banking industry that were listed on the Indonesian Stock Exchange between 2021 and 2022 comprise the sample for this research, which consists of 6 (six) companies that already meet the requirements and criteria. This quantitative research uses a purposive sampling method, which is the selection of a non-random sample whose information is obtained by using specific considerations adjusted to the purpose of the study. Some requirement criteria are that the chosen banking companies should be engaged in a digital banking business model and have an available data period of one year, from April 2021 to March 2022 (daily data). Of the 46 (forthy-six) banking stocks listed on Indonesia Stock Exchange, the companies that met the criteria are only 6 (six), described in the table below.

Table 1: Data Sample Observation

	Samples: Stocks in Banking Industry (Digital Banking)			
No	**Company Name**	**Code**	**Listing Date**	**Digital Bank App Name & Date of App Initiation**
1	Bank Jago Tbk.	ARTO	12 Jan 2016	Jago (Jun'20)
2	Bank Neo Commerce Tbk.	BBYB	13 Jan 2015	NeoBank (Mar'21)
3	Bank Danamon Indonesia Tbk.	BDMN	06 Dec 1989	D-Bank (Mar'20)
4	Bank Permata Tbk.	BNLI	15 Jan 1990	Permata Me (Apr'21)
5	Bank BTPN Tbk.	BTPN	12 Mar 2008	Jenius (Aug'16)
6	Bank OCBC NISP Tbk.	NISP	20 Oct 1994	Nyala-OCBC (Jul'20)

Source: Indonesia stock exchange and company website

4. Research Methodology

To investigate the influence of the excess return market on the return of the stock, this research uses CAPM Model using Microsoft excel and phyton tools.

The following are the data analytics techniques in order:

- Calculate the return of individual stocks (Ri)
- Calculate the return of market (RM)
- Calculate the return-free risk (Rf)
- Calculate β (level systematic risk of the individual stocks)

$$\beta_i = \frac{\sigma_{im}}{\sigma^2_m}$$

Bi : level of risk cannot be diversified from securities / systematic risk
Σim : Covariance between individual stock with the market return
σ2m: Market variant

- Calculate the expected return using the CAPM model

Expected Return, E(Ri) = Rf + ß * (Rm – Rf)

4.1 The conceptual framework

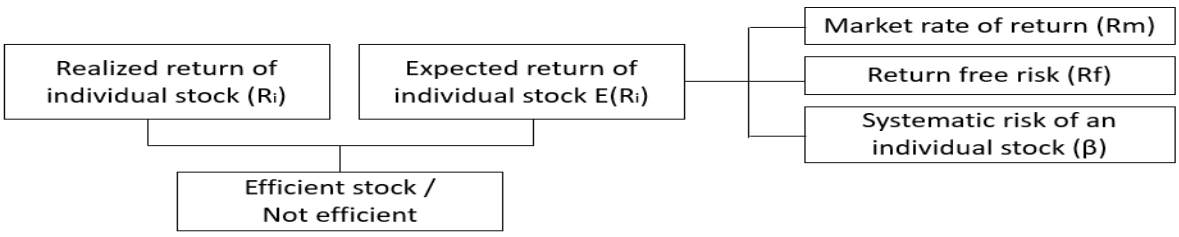

Figure 2. Research Framework

The hypothesis in this research is H1: The expected return on the individual stock is tormented by the excess of market return (Rm-Rf). And using the CAPM model will determine the efficient stocks as a suggestion for optimal portfolio investment.

Individual shares with a return bigger than the expected return are classified as efficient shares [(Ri)> E (Ri)] (Susanti et al., 2014). Therefore, by grouping shares, a maximum rate of return can be obtained through stock diversification, allowing an investor's stock investment to be maximized. Investors can use the CAPM approach to choose and sort shares to buy or sell, attempting to determine if the shares are undervalued or overvalued. When a stock's rate of return exceeds the minimal return, it is said to be undervalued, and when it falls below the minimum return, it is said to be overpriced.

5. Results and Findings

Results of the Analysis of Individual Stock Return Rate (Ri) Ri can be calculated by subtracting this month's share price from the previous month's share price and comparing it to the previous month's share price. Following are the results of the calculation of individual stock returns for six stock samples of digital banking for the period April 2021 - March 2021 using daily closing price data. Data were also collected from several websites such as Yahoo Finance and Investing.com

Table 2. The monthly return of individual stocks (Ri) for the Period of Apr'21 – Mar'22

Monthly Return	Code					
	RARTO	RBBYB	RBDMN	RBNLI	RBTPN	RNISP
Individual Stock (Ri)	0.06194868	0.25437994	-0.00901865	-0.04297276	-0.0061916	-0.03261011

The above table illustrates that Bank Neo Commerce stock has the highest return and Bank Permata stock has the lowest return.

The IHSG is the market index used in this study to calculate market returns (RM), as it is regarded as capable of representing all-stock transaction activities on the IDX (Indonesia Stock Exchange). Whilst for the risk-free (Rf), a Government Bond of 1 year was used to calculate the Rf.

Table 3. The calculation of monthly Ri, RM, and Rf for the Period of Apr'21 – Mar'22

Return	Code					
	RARTO	RBBYB	RBDMN	RBNLI	RBTPN	RNISP
Individual Stock (Ri)	0.061948682	0.254379937	-0.00901865	-0.04297276	-0.006191578	-0.032610109
Market Return (RM)	0.020648722	0.020648722	0.020648722	0.02064872	0.020648722	0.020648722
Risk-Free Return (Rf)	0.002946660	0.002946660	0.002946660	0.002946660	0.002946660	0.002946660

The relationship between stock returns and market returns will be seen by calculating Beta. Beta shows the relationship between the rate of return of a stock with the level of market return because it is the quotient of covariance of shares with market variants. The CAPM method also explains that investors should consider Beta on a stock because it affects the fluctuations in the stock price and the size of the expected rate of return.

Following are the results of the systematic risk calculation of six digital banking stocks in this study.

Table 4. The calculation of Systematic Risk of Stock (βi) Period of Apr'21 – Mar'22

Return	Code					
	RARTO	RBBYB	RBDMN	RBNLI	RBTPN	RNISP
Covariance (Ri, RM)	8,3651E-05	9,9178E-05	5,25629E-05	3,43129E-05	1,8703E-05	1,5182E-05
Variance (RM)	5,6103E-05	5,6103E-05	5,61027E-05	5,61027E-05	5,6103E-05	5,6103E-05
Beta (ßi)	1,49103152	1,7677935	0,936904931	0,611609373	0,33337662	0,27061058

Post calculating the systematic risk, the highest Beta (β) is Bank Neo Commerce, while the lowest Beta is Bank OCBC NISP. All six companies have positive Beta. It shows that all of the Banks (Bank Jago, Neo Commerce, Bank Danamon, Bank Permata, Bank BTPN, and Bank OCBC NISP) seem to move toward the up-down of the Market Return (RM). Where Bank Jago and Bank Neo Commerce have Beta > 1, meaning that these stocks are moving faster than the market (aggressive stocks), and the four Banks (Bank Danamon, Bank Permata, Bank BTPN, and Bank NISP are defensive stocks as they have Beta < 1.

Table 5. The calculation of Expected Rate of Return E(Ri) Period of Apr'21 – Mar'22

No	Code	Rf	RM	βi	E(Ri)
					Rf+ βi (RM-Rf)
1	RARTO	0.3%	0.020648722	1.4910315	0.029340993
2	RBBYB	0.3%	0.020648722	1.7677935	0.034240251
3	RBDMN	0.3%	0.020648722	0.9369049	0.01953181
4	RBNLI	0.3%	0.020648722	0.6116094	0.013773407
5	RBTPN	0.3%	0.020648722	0.3333766	0.008848114
6	RNISP	0.3%	0.020648722	0.2706106	0.007737025

The expected rate of return [E (Ri)] is the number of profit investors expects from stock investments made. The CAPM method itself is used to calculate the expected rate of return using the risk-free return (Rf) variable, the average market return [E (Rm)], and also (β) as the systematic risk of each stock (Pristiwantiyasih et al., 2020).

Based on the calculations done before, the stock can be classified by comparing the Ri, E(Ri). If the value of Ri > E(Ri) CAPM, the shares can be classified as a stock with a value undervalued. Whereas if the value of Ri < E(Ri) CAPM, then the shares can be classified as overvalued stocks (Dempsey, 2013).

Based on the six companies' E(Ri) calculation, two companies are worth buying (Bank Jago and Bank Neo Commerce). The two stocks can be categorized as trading efficient and feasible to be purchased. At the same time, the four companies are not worth buying as they are referred to as overvalued stocks Bank Danamon, Bank Permata, Bank BTPN, and Bank NISP).

Table 6. Stocks Classification and Recommendation

No	Code	Ri	E(Ri)-CAPM	Result	Value	Recommendation
1	RARTO	0.0619	0.0293	Ri > E(Ri)	0.03261	Buy/Hold
2	RBBYB	0.2544	0.0342	Ri > E(Ri)	0.22014	Buy/Hold
3	RBDMN	-0.0090	0.0195	Ri < E(Ri)	-0.02855	Sell
4	RBNLI	-0.0430	0.0138	Ri < E(Ri)	-0.05675	Sell
5	RBTPN	-0.0062	0.0088	Ri < E(Ri)	-0.01504	Sell
6	RNISP	-0.033	0.0077	Ri < E(Ri)	-0.04035	Sell

Based on table 6, it can be seen that there are two companies whose shares are classified as under-valued, while four companies included as over-valued.

Based on the E(Ri) calculation of the six companies, two companies are worth buying (Bank Jago and Bank Neo Commerce) so that the two stocks can be categorized as trading efficient and feasible to be bought. The four companies are not worth buying as they are counted as overvalued stocks (Bank Danamon, Bank Permata, Bank BTPN, and Bank NISP).

5.1 Regression Analysis

To test hypothesis H1: Expected return on security (individual stock) is affected by the return market (RM), regression analysis was done in phyton using single-linear regression analysis.

Y = dependent variable = R(i) and
X= independendent variable = RM

Table 7. Regression Analysis using a single dependent variable (x=RM)

No	Y	Slope/Coeff	P-Value	Analysis
1	RARTO	1,50164527	0,000	Variable RM is significant with R(ARTO)
2	RBBYB	1,76044246	0,016	Variable RM is significant with R(BBYB)
3	RBDMN	0,96300942	0,000	Variable RM is significant with R(BDMN)
4	RBNLI	0,61223968	0,000	Variable RM is significant with R(BNLI)
5	RBTPN	0,32514638	0,002	Variable RM is significant with R(BTPN)
6	RNISP	0,27555345	0,001	Variable RM is significant with R(NISP)

Based on the regression result, it was found that the RM variable has a significant correlation with R(i), where the result of all partial tests (t-test) showed a P-value<0.05. Moreover, the coefficient resulting is a similar value to Beta.

6. Recommendation

Efficient stock is a stock that has an individual return (Ri) that is greater than the expected rate of return [E (Ri)] and is above the Security Market Line (SML). In contrast, an inefficient stock is a stock that has an individual return (Ri) that is more diminutive than the expected rate of return [E (Ri)] and is below the Security Market Line (SML) line. In this study, there are two efficient shares and four shares categorized as inefficient shares. ARTO (Bank Jago) and BBYB (Bank Neo Commerce) are the two efficient stocks, while BDMN (Bank Danamon), BNLI (Bank Permata), BTPN (Bank BTPN), and NISP (Bank OCBC NISP) are included as the inefficient stocks.

7. Conclusion

A stock market valuation is considered the most complex, owing to the numerous underlying elements that influence stock valuation. Additionally, regulatory considerations and market sentiments always affect stock valuation. Thus, it is critical to managing the underlying differences that affect the value of stocks. This study found that the intrinsic value of individual stocks chosen as the sample proved that the return market and risk-free influence their return under CAPM. Based on the research conclusions indicating that two (two) of the six digital banking stocks are categorized as efficient or undervalued, the researcher suggests that investors buy or hold such stocks (Bank Jago and Bank Neo Commerce). Additionally, the regression model suggests that the excess return variable has a positive and substantial effect on stock returns. It indicates that the larger the market's excess return, the higher the stock's return, and the more confident the market is in the company's prospects. Further research is intended to extend the research duration and sample size and incorporate dividends into the overall return to provide a more credible basis for investing decisions.

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TABLES

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