

System Literature Review: Analysis Of The Influence Of Market Anomaly And Financial Behaviour On Abnormal Returns In The Efficient Market Hypothesis

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Abstract: The capital market is one of the important indicators in a country's economy, which reflects the dynamics of the relationship between investors, companies, and market conditions. In the Efficient Market Hypothesis (EMH) theory, stock prices are said to reflect all available information efficiently. Thus, there is no opportunity for investors to consistently generate abnormal returns, namely profits that exceed market expectations based on the risks taken. However, in practice, various market anomalies and financial behavior often show deviations from the basic assumptions of the EMH. This study aims to analyze the effect of various market anomalies such as the January Effect, Ramadhan Effect, Election Days Effect, Pandemic Covid Effect, and financial behavior on abnormal returns in the Efficient Market Hypothesis using the system literature review research method. The results of the study show that the January Effect, Ramadhan Effect, Election Days Effect, Pandemic Covid Effect have a negative effect on abnormal returns in the Efficient Market Hypothesis. Financial behavior such as herding behavior shows that there is no herding behavior in the Indonesian capital market. These results indicate that investors are rational in making investment decisions because they have good access to relevant information about stock price movements in the market.

Key Words: Efficient Market Hypothesis, Market Efficiency, Behavioral Finance, Market Anomalies

Introductions

The capital market is one of the important indicators in a country's economy, reflecting the dynamics of the relationship between investors, companies, and market conditions. In the Efficient Market Hypothesis (EMH) theory, stock prices are said to reflect all available information efficiently. Thus, there is no opportunity for investors to consistently generate abnormal returns, namely profits that exceed market expectations based on the risks taken. However, in practice, various market anomalies and financial behavior often show deviations from the basic assumptions of the EMH. Market anomalies, such as the January Effect, Ramadhan Effect, Election Days Effect, and the Pandemic Covid Effect, are often of concern to academics and practitioners. This phenomenon shows a certain pattern in stock price movements that can affect abnormal returns. For example, the January Effect is usually associated with an increase in small stock prices in January, while the Ramadhan Effect and Election Days Effect are related to the impact of seasonality or political events on the capital market. The Covid-19 pandemic has also caused market instability, with a significant impact on abnormal returns, especially in the early stages of its spread. In addition to market anomalies, financial behavior is another factor that affects abnormal returns. Investor behavior, such as market sentiment, herding behavior, and reliance on social media information, often show irrationality in investment decision making. This is contrary to the assumption of rationality underlying the EMH. For example, investors who are influenced by social media sentiment tend to ignore fundamental analysis and follow collective opinion more.

This study aims to analyze the influence of various market anomalies and financial behavior on abnormal returns in the Efficient Market Hypothesis framework. By exploring this phenomenon, it is expected to provide a deeper understanding of market efficiency in Indonesia, as well as assist investors and policy makers in managing risks and utilizing investment opportunities more wisely.



Methods

This research method is a systematic literature review using Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) 2020 to ensure transparency, replicability, and scientific adequacy of the systematic literature review. The journal article search database used is Google Scholar and Garuda with keywords in the journal search are Efficient Market Hypothesis, Market Efficiency, Behavioral Finance, Market Anomalies. The inclusion criteria for the selected journals are (a) English and Indonesian language journal articles published between 2020-2024, (b) research discussing the Efficient Market Hypothesis (c) original research. Data analysis was carried out using content analysis which facilitates understanding by analyzing the content and references of each journal. The following is a flowchart of the PRISMA 2020 search method.

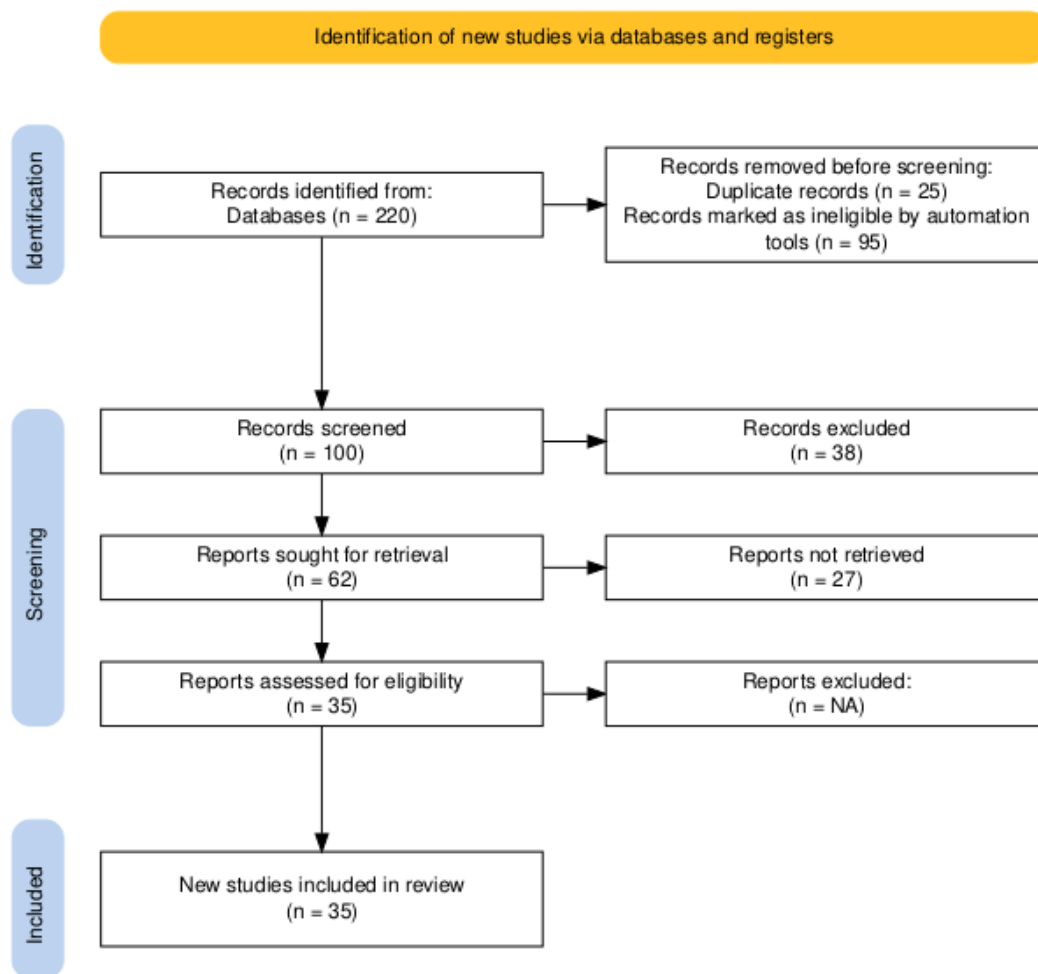


Figure 1. PRISMA 2020 Search Method Flowchart

Results and discussion

Results

To analyze the results of the initial screening and literature review, the author uses the VosViewer application to facilitate the initial search for articles and to help verify the accuracy and suitability of the scope of the research question. The image below shows a visualization based on the keywords mentioned in the article. From the results of the diagram below, it can be seen that market anomalies and behavioral finance have a significant effect on the Efficient Market Hypothesis and this is a keyword that needs to be discussed further regarding market anomalies and behavioral finance, what can affect the Efficient Market Hypothesis.

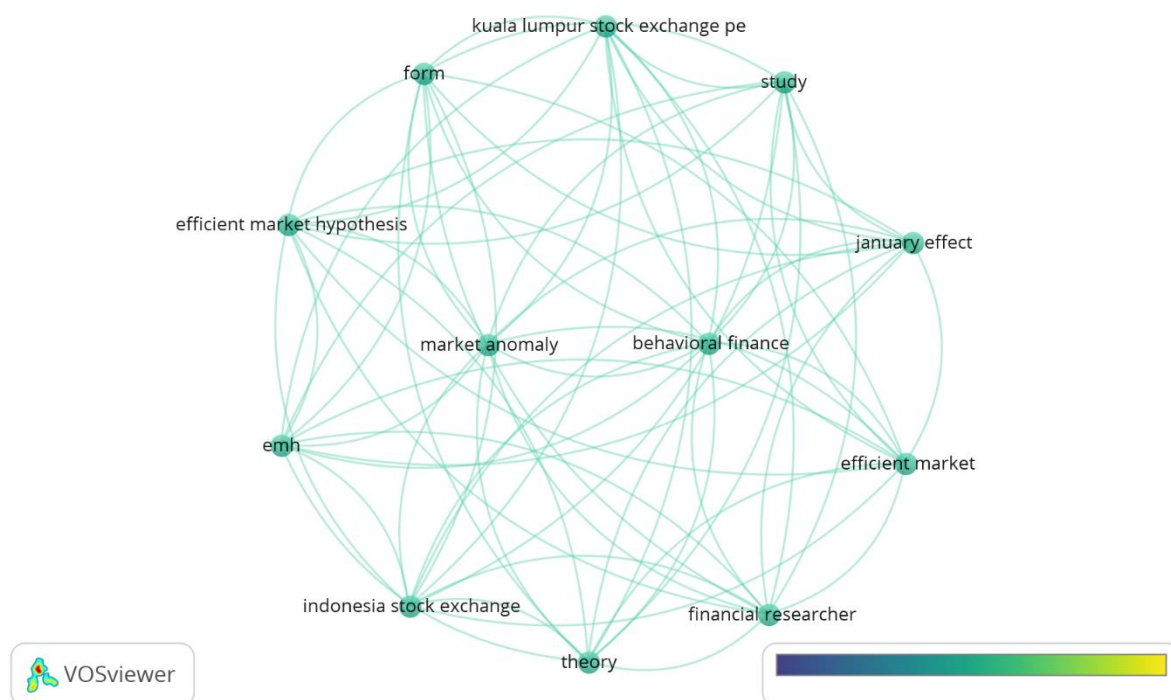


Figure 2. Visualization Results with VosViewer

The results of the reviewed journal articles are shown in table 1 below.

Author, Year	Title Research	Research Purposes	Sample, Methodology	Results
Widodo, (2024)	An Investigation of the Effect of Covid-19 on Efficient Market Hypothesis (EMH) Anomalies: Econometric Approach	Analyzing the impact of the Covid-19 crisis on changes in the daily return pattern of the LQ45 Index, and seeing whether the daily return pattern of the LQ45 Index is efficient as argued by the EMH (Efficient Market Hypothesis).	The observation period was before and during Covid 19. Data analysis used an econometric approach to test each EMH anomaly, as well as running the ARCH-GARCH model due to the use of dummy variables.	Covid-19 has no effect on the daily return pattern of LQ45, The Week Four effect is proven, but The Day of Week effect, Monday effect and Weekend effect are not found. Another finding is that the trading day anomaly testing model is sensitive to the distribution of the error term, and suggests that good news or bad news in volatility depends not only on the asymmetric model but also on the choice of the error term distribution.
Jannah & Hidayat, (2024)	Market Anomalies: January Effect and Weekend Effect on Stock Return	Testing the influence of the January Effect and Weekend Effect on stock returns.	The population used is the LQ45 index consisting of 45 companies. The sample used was 17 companies selected	Stock returns in January show negative values indicating that the January Effect does not affect stock returns. Stock returns show positive values on Fridays compared to other

Author, Year	Title Research	Research Purposes	Sample, Methodology	Results
			through purposive sampling technique. The data analysis method used is descriptive statistical analysis and multiple linear regression models.	trading days indicating that the Weekend Effect affects stock returns. Together, the January Effect and the Weekend Effect affect LQ45 stock returns on the IDX.
Pertiwi et al., (2024)	Market Anomalies of LQ 45 Stock on the Indonesia Stock Exchange	<p>The research aims are; (1) to determine the effect of the Monday. Effect on Stock Returns (2) to determine the effect of the Week. Four Effect on Stock Returns (3) to determine the effect of the January effect.</p> <p>January Effect on Stock Returns.</p>	<p>The object of the research was carried out on the stock returns of companies registered with companies listed on the LQ 45 Index on the Indonesia Stock Exchange (IDX) from 2020 to 2021. The data used in this Research is secondary data. Sampling technique with purposive sampling. The number of samples in this study based on the criteria obtained was 15 companies during 2020 to 2021, using the Eviews 10 statistical testing tool.</p> <p>The analysis technique used was linear regression analysis using the dummy method</p>	The results of the t test show that (1) the Monday Effect has no effect on Stock Returns (2) the Week Four Effect has a significant effect on Stock Returns (3) the January Effect has a negative effect on Stock Returns.
Handayani & Atikah, (2024)	Herding Behavior: Analysis of Stock Investor Behavior on the Indonesian Stock Exchange	To analyze the herding behavior of LQ-45 shares on the Indonesia Stock Exchange for the 2021-2023 period and determine the influence of market returns and	Kuantitatif, The total sample in this study was 58 companies listed in the LQ-45 stock index for the 2021-2023 period. The analytical	The research results show that there is no herding behavior on the Indonesian Stock Exchange for the 2021-2023 period, which means investors are rational and do not follow market movements or the

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		market capitalization on herding behavior	method used is Generalized Least Square (GLS) analysis.	actions of other investors. This research also found a relationship between market capitalization and herding behavior, where the greater the market capitalization, the lower the herding behavior. This research makes an important contribution to understanding market behavior and the factors that influence it.
Hakim & Pramudena, (2024)	Testing Holiday Effects On Capital Market Performance At The Association Of Southeast Asian Nations (ASEAN)	The shows the volatility of stock performance in the capital market which is thought to be influenced by the holiday effect. Within the observation time or event window 5 days before and 5 days after, the Holiday effect is one of the phenomena where economic and social activities experience changes during the holiday period.	The analysis method used descriptive statistical analysis, Kolmogorov Smirnov and Shapiro. Wilk test normality test followed by hypothesis test using Paired Sample t-test and non parametric Wilcoxon Signed Ranks Test.	There is no difference in performance before and after the holiday on the Indonesian stock index (JCI) Vietnam (VNI), Thailand (SETI), Singapore (STI), Philippines (PSEi) had no difference between before and after holidays during the study year (2018-2022) and Malaysia (KLCI) had differences between before and after holidays during the study year (2018-2022) This shows that capital market conditions in tend to be efficient related to the theory of Efficiency Market Hypothesis (EMH), which means that all information available in historical price data reflects all relevant information, including information about holidays in securities prices, so investors cannot take advantage of the anomaly holiday effect sentiment to take profits.
Thomas et al., (2024)	Overreaction Anomaly on Indonesia Stock Exchange in The	To analyse the phenomenon of overreaction Anomaly, Characterized by	The sample used in the research included shares of companies in JII70 and was	The overreaction anomaly phenomenon of the three formations (monthly, quarterly, and

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	Jii70 Index for 2020 - 2022	differences in cumulative average abnormal returns between winner stock portfolios and loser stock portfolios on the Indonesia Stock Exchange (BEI).	selected using purposive sampling techniques to obtain 12 company shares.	semester) only occurs in the monthly formation.
Sembiring, (2023)	Firm Size, Market Risk, And Return Reversal Anomalies During The COVID-19 Pandemic	To prove whether company size and market risk based on CAPM have an effect on the return reversal anomaly which is an indicator of market overreaction events during the COVID-19 pandemic.	Explanatory research with a sample of stocks on the Indonesia Stock Exchange (IDX) 2019-2021, Quantitative	The results of the study are that the return reversal anomaly occurs in the short term on the IDX and the contrarian strategy has provided benefits. Firm size and market risk factors affect the return reversal in some periods only while in some periods it has no effect. In periods where company size and market risk have no effect, this indicates that the return reversal anomaly that occurs is entirely the behavior of investors who overreact in responding to the pandemic conditions that occur without considering the size and market risk factors of the company whose shares are the target of investment.
Hanief Arifin & Sista Paramita, (2024)	The Impact of Buyback Announcement on Stock Anomalies in the Indonesia Stock Exchange	This research aims to analyse the effect of buyback announcements on stock anomalies, as reflected in abnormal returns, cumulative abnormal returns, and trading volume activity	The sample data comprises 72 companies listed on the Indonesia Stock Exchange that made buyback announcements from 2020 to 2022. An event study methodology was employed to examine the buyback announcement events. Additionally, the Wilcoxon-Signed Rank Test was	The results indicate no significant difference in abnormal return around the stock buyback announcement dates, no significant difference in cumulative abnormal return around the stock buyback announcement dates, and a significant difference in trading volume activity around the stock buyback announcement dates.

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			utilized as a statistical tool to test for differences before and after the buyback announcements.	
Rizfathanty & Danarsari, (2024)	Impact of The Covid-19 Pandemic On Stocks Market Performance Of Service Industry In Indonesia	To analyze the impact of COVID-19 on abnormal returns and abnormal volume of stocks in the service industry in Indonesia.	Using the event study method, three business sectors most affected by COVID-19 in the service industry are investigated	This study finds a negative stock market reaction to the pandemic and social distancing announcement, and positive reaction for announcement of national economic recovery program and reopening economic activity with health proto-col. All events had a negative impact on the abnormal volume of the stocks. Finally, either size or liquidity is found to be a significant driver of abnormal returns
Suryanegara & Pangestuti, (2024)	Examining the presence of the Monday effect on the Indonesian Stock Exchange before and during the Covid-19 pandemic	This study examines the presence of the Monday effect on the Indonesian Stock Exchange before and during the Covid-19 pandemic based on stock return, transaction volume, and trading patterns	The data used in this study is from the Jakarta Composite Index from 1 July 2017 to 30 November 2022. The analytical methods used in this research is one-way ANOVA and two-way ANOVA	The results of this study demonstrate that day-of-week was not a significant factor in terms of daily return and daily total transaction volume before and during the pandemic. Moreover, there was no Monday effect in daily investor trading patterns before the pandemic. During the pandemic, the Monday effect in daily investor trading patterns was also not present. However, after the change in the trading hour period, the Monday effect was found in the daily investor trading pattern
Sidik et al., (2024)	Efficient Market Analysis of Jakarta Islamic Index (2019-2023)	This study aims to analyze the efficient market form of the Jakarta Islamic Index.	The study sample consists of 102 samples with 30 stocks of companies listed during the study period and 36 stocks of companies that exited and re-entered after the	The findings show no difference in abnormal returns and trading volume activity before and after the announcement. This suggests that the market has absorbed the announcement information before the event occurs, resulting in a weak

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			announcement of the composition change. The analysis technique used is the Paired Sample T-Test.	reaction and indicating that the announcement has no significant impact on the Jakarta Sharia Index. This implies that the index operates in a semi-strong efficient market form. Therefore, companies listed in the index composition may require additional strategies to improve their stock performance.
Dimitry et al., n.d. (2024)	Analysis of the Effect of MAX Return on Expected Return in Indonesian Stocks Exchange	To analyze the influences of MAX returns on the expected returns of stocks listed in the KOMPAS 100 Index of the Indonesia Stock Exchange from 2012 to 2021.	This study used a quantitative approach with the technique of purposive sampling. The samples are companies listed and settled in the KOMPAS100 Index of the Indonesia Stock Exchange from 2012 through 2021. The samples used in the study consisted of 45 companies	This study showed a significant negative influence between the MAX and expected returns. Hence, investors on the Indonesia Stock Exchange preferred buying stocks that experienced extremely positive returns in the hopes of getting high returns. However, they had a small probability and a higher risk level. Thus, it could be concluded that investors in the Indonesian Stock Exchange tended to buy stocks like a lottery
Rizfathanty & Danarsari, (2024)	Impact of The Covid 19 Pandemic: Is There Overreaction in LQ 45 Stock?	to analyze investor responses stocks in LQ 45 that are included in LQ 45 to information on cases of covid 19 whether it causes overreaction, whether shows the differences in responses between stocks that are included in the winner and loser (groups before the covid 19 pandemic / normal) and look for factors that influence the difference in these reactions. The results of this study are expected	This analysis of stock behavior during the COVID 19 pandemic uses LQ 45 stock data, which is 45 of the most liquid stocks last semester and is grouped into a group of winner companies based on the highest 30% abnormal return average (15 stocks) as winner stocks and the lowest 30% stocks as loser stocks. Abnormal returns are calculated	The results showed that there was an overreaction on in both winner and loser stocks in the LQ 45 group on the IDX in 3 months of observation since covid was announced as a pandemic. This overreaction is then followed by a price reversal even though it has not given a significant return after t+13 for both winner and loser stocks

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		to provide an overview and analysis model of stock price or value behavior that can be a guide for stock investment in the event of certain events such as the COVID-19 pandemic.	based on the difference between normal returns in the LQ45 group and the average market return (IHSG) in the September-November 2019 period as normal windows.	
Badri, (2023)	Ramadan Effect On The Returns Of The Jakarta Islamic Index (JII) And The Ftse Bursa Malaysia Hijrah Syariah Index (FBMHS)	To analyze a market anomaly known as the Ramadhan Effect in the Jakarta Islamic Index (JII) and the FTSE Bursa Malaysia Hijrah Syariah Index (FBMHS)	The study utilizes secondary data, specifically daily time series data derived from closing prices. The research sample consists of the Jakarta Islamic Index (JII) and the FTSE Bursa Malaysia Hijrah Syariah (FBMHS), covering the period from January 2017 to December 2019. The GARCH (Generalized Autoregressive Conditional Heteroskedasticity) method is employed for analysis	There is no evidence of the Ramadhan Effect in the return equations of the Jakarta Islamic Index (JII) and the FTSE Bursa Malaysia Hijrah Syariah (FBMHS).
Syafitri & Suryani, (2022)	Stock Information on Social Media and Stock Return	To determine the influence of Instagram posts on abnormal returns.	The sample used was 2,675 posts from 18 stock news accounts. Generalized Least Squares (GLS) regression was used to determine the impact of Instagram posts on abnormal returns.	The results of the study indicate that sentiment on social media has a positive effect on abnormal returns. However, there is a possibility of misinterpretation by investors and the involvement of impostors so that the impact of information on social media on abnormal returns is only temporary. This study contributes to the behavioral finance literature by examining the effect of sentiment on

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				Instagram on abnormal returns. In addition, information on social media can be utilized by investors by selling their holdings when stocks get positive sentiment in order to get abnormal returns. Investors can buy stocks when there is negative sentiment on social media because the stock price becomes lower than its intrinsic value so that it has the potential to increase again.
Sinaga et al., (2023)	The Psychology of Risk Influence and Investor Sentiment on Investment Decision Making in the Indonesian Stock Market	To provide empirical evidence concerning the influence of risk psychology and investor sentiment on investment decision-making.	Data collection was conducted from December 2022 to February 2023, utilizing a proportionate stratified random sampling method. The sample size meeting the specified criteria was 100 respondents, SEM	The findings suggest that risk psychology has a positive, albeit insignificant, effect on investment decision-making. However, risk psychology significantly influences investor sentiment, which in turn has a substantial and positive effect on investment decision-making. The study also provides empirical evidence of a robust indirect effect of risk psychology on investment decision-making.
Saputra et al., (2023)	Overreaction Analysis of Indonesian Capital Market Investors After The Announcement of The First Covid-19 Case In Indonesia	To obtain empirical evidence regarding investor overreaction in winner stocks and investor overreaction in loser stocks after the announcement of the first COVID-19 case in Indonesia.	Overreaction analysis was carried out in 11 IDX-IC stock sectors. The analysis technique used is the Dependent Paired Sample t-Test by comparing the AAR values of winner or loser stocks on the first 30 trading days after the announcement of the COVID-19 case with the AAR of winner or loser stocks on the next 30 trading days	The results showed that there was investor overreaction after the announcement of the first COVID-19 case in Indonesia, both in loser stocks and in winner stocks. Overreaction in loser stocks occurred in the infrastructure sector, the financial sector and the technology sector. Overreaction in winner stocks occurred in the consumer non-cyclical sector, the energy sector, the basic materials sector, the consumer cyclical sector and the property & real estate sector. With the results found that there is still overreaction behaviour in several stock

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				sectors on the Indonesia Stock Exchange, investors and potential investors in investing can apply contrarian strategies while still paying attention to the type and characteristics of the company and its relationship with the information that is currently circulating.
Supardi & Rasyid, (2023)	The Influence of Inflation, Crude Oil Prices, And The Ramadan Effect On Stock Return	To examine the effect of Inflation, Crude Oil Prices, and Ramadan Effect on Stock Return of manufacturing companies in Indonesia listed on the Indonesia Stock Exchange (IDX) during 2020.	The sample selection technique used was purposive sampling with some predetermined criteria	This study shows that the independent variables in the form of Inflation and Crude Oil Prices have no effect on Stock Return. The other independent variable, Ramadan Effect shows a positive effect on Stock Return.
Handayani & Atikah, (2024)	Herding Behavior: Analysis of Stock Investor Behavior on the Indonesian Stock Exchange	To analyze the herding behavior of LQ-45 shares on the Indonesia Stock Exchange for the 2021-2023 period and determine the influence of market returns and market capitalization on herding behavior. The total sample in this study was 58 companies listed in the LQ-45 stock index for the 2021-2023 period. The analytical method used is Generalized Least Square (GLS) analysis.	The total sample in this study was 58 companies listed in the LQ-45 stock index for the 2021-2023 period. The analytical method used is Generalized Least Square (GLS) analysis.	The research results show that there is no herding behavior on the Indonesian Stock Exchange for the 2021-2023 period, which means investors are rational and do not follow market movements or the actions of other investors.
Riyani et al., (2023)	Determinants of Indonesian Capital Market Reaction	To examine whether companyspecific factors (company size, growth, and risk), national macroeconomic factors (Inflation, interest rates, and exchange rates on a national scale), and world macroeconomic factors (market returns,	According to purposive sampling, the sample used is 22 companies, and data analysis using panel data regression with the help of software Eviews 12 indexed by LQ45,	The study's results found that only national interest rates and world inflation could cause the Indonesian Capital Market to react. In contrast, size, growth, risk, national Inflation, world returns, world interest rates, and world exchange rates did not cause the Indonesian Capital Market to react.

Author, Year	Title Research	Research Purposes	Sample, Methodology	Results
		Inflation, interest rates, and world-scale exchange rates) may cause the Indonesian Capital Market to react		
Sembiring, (2022)	How Well is the Implementation of CAPM in Condition of Market Anomaly? Case in Market Overreaction Anomaly at Indonesia Stock Exchange	This study aims to test the occurred of the market anomaly, iemarket overreactions in Indonesian stock market at the Covid-19 pandemic.	The data from the Indonesia Stock Exchange (IDX) used are the stock price in periods of January 2019-December 2020, which during the pandemic were have the potential to be profitable or detrimental.	The results of this research are as follows: First, markets overreaction anomaly event has occurred in Indonesian stock market in periods of Covid-19 pandemic. The reversal of return occurs for most shares those have the potential to be profitable or detrimental, or have been proven those it profits rates has increased or decreased in the periods of the pandemic. Second, the contrarian strategy is relevant to be implemented in the short term in Indonesian stock market, which is in this pandemic. By implementing the contrarian strategy, a profitable return is obtained from the difference between the returns of the losers and the winners through their each of observation period. Third, market risk factors based on the CAPM have a significant effect only for the losers stocks.
Sembiring (2024)	Firm Size, Market Risk, And Return Reversal Anomalies During The COVID-19 Pandemic	This research aims to prove whether firm size and market risk based on CAPM affect return reversal anomalies as indicators of market overreaction during the COVID-19 pandemic.	Quantitative, January 2019 until December 2021in IDX	It was found that return reversal anomalies occurred in the short term on the IDX, and contrarian strategies resulted in profits. Factors of firm size and market risk affected the reversal of returns in specific periods but did not affect other periods. When firm size and market risk had no effect, the return reversal anomaly occurred entirely due

Author, Year	Title Research	Research Purposes	Sample, Methodology	Results
				to the investors' overreaction in response to the pandemic without regard to the size and market risk factors of companies whose stocks were the investment target.
M et al., (2024)	Systematic Literature Review of Market Efficiency in Emerging Markets	Literature Review	This research examines market efficiency in emerging markets through a systematic literature review.	This research finds that emerging markets are generally only able to achieve weak-form efficiency, where prices reflect historical information but fail to fully reflect public or private information quickly and accurately. Limitations in transparency, weak regulation, and insider trading practices hinder the achievement of semi-strong and strong form efficiency. In addition, market anomalies such as price deviations from fundamental values are often found, caused by unstable and asymmetric information distribution
Mujadiddah et al., (2020)	Short-Term Overreaction of Islamic Stocks To Specific Events In Indonesia	This study aims to analyse the phenomenon of overreaction in Islamic stocks, as well as the factors that influence the phenomenon.	Two-stage testing method: Two paired sampling and cross-sectional regression. Two specific events which occurred in 2016-2018, and which were followed by price reversal and return reversal, are studied	The results show that the election of Donald Trump as US President (Event 1) and the bombings in Surabaya (Event 2) were significant in the overreaction in the winner stock category. The factors that influenced the two events were different. The overreaction to Trump's election proved to be significantly influenced by information leakage, while the bombings in Surabaya significantly affected the company ownership category. The results indicate that Islamic stocks continue to have several transactions which are prohibited by the

Author, Year	Title Research	Research Purposes	Sample, Methodology	Results
				DSN MUI fatwa in the short term.
Lesmana & Sumani, (2023)	Abnormal Return Analysis Before and After General Election in Asia	The research aimed to examine the capital market's reaction to political events as seen from the abnormal return using the event study concept.	The research used event study methods, Cumulative Average Abnormal Return (CAAR) to compare abnormal returns during the general election. The research used an estimated period of 120 days and a time of observation of 33 days.	Research shows no significant difference between the average abnormal returns before and after the general election event in the last five events for all the countries tested.
Abiprayu, dkk (2022)	Market Overreaction and Price Reversal in Indonesia Stock Market: Disposition Effect Examination	To find the influence of price reversal in market overreaction	Kuantitatif, listed on the Indonesia Stock Exchange during the research period, namely 2018-2020	Based on the analysis and discussion of the Analysis of Overreaction Hypothesis and the influence of company size, liquidity & bid-ask spread on the phenomenon of stock price reversal on the IDX. The price reversal occurs in both winner and loser stocks. The stock price reversal that occurs is a form of adjustment to the event of a massive increase or decrease in stock prices
Afrilianto Wiwiek Mardawiyah Daryanto, (2019)	Market Anomaly Testing: The Day of The Week Effect On LQ45 Stocks In Indonesia Stock Exchange	To test the existence of market anomaly, specifically to the day-of-the-week phenomena using descriptive analysis and a statistical F-test and T-test for the multiple regression model.	Twenty-two LQ45 stocks that are constantly listed from 2013 to 2018.	The result shows that the day-of-the-week partially and simultaneously affect twenty-two LQ45 stock return from the period of 2013 to 2018. Thus, the market anomaly of the-day-of-the-week effect existed on LQ45 stocks in Indonesia Stock Exchange. The authors believe that this study will be beneficial for investors in making an investment decision, also contribute to a literature study of market anomaly testing.
Pourkermani, (2021)	Monday Effect in Maritime Financial Variables: An Anomaly in Baltic	This article investigates the day of week effects on BDIY: IND returns from 2014-03 to	Kuantitatif, Statistical data associated with the total BDIY:IND were received from	The results indicate that the Monday returns are significantly positive, which is in contrast with the usual

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	Exchange Dry Index (BDIY: IND)	2020-03.	Baltic Exchange on a daily basis (1/1/20014 till 26/12/2020) with Bootstrap asymmetric GARCH regression model	findings in stock markets.
Awwal & Afandi, (2021)	The Effect of Corona, Mine Commodity Prices, And Rupiah Exchange Rate on Indonesian Islamic Share Prices In The Mining Sector	To analyze the effect of the corona pandemic, mining commodity prices and the rupiah exchange rate on Indonesian Islamic Share Prices/ <i>Indeks Saham Syariah Indonesia</i> (ISSI) in the mining sector in 2020.	Kuantitatif, The data used is a cross-sectional type with a sample of 32 companies with an observation duration of 195 days during the 2020 period.	The results show that simultaneously the independent variables significantly affect the dependent variable and partially the world coal price, world oil price, gold price. The world and the rupiah exchange rate with the exception of corona have a significant effect on mining stock prices at Indonesian Islamic share prices in 2020. This research proves that the Market anomaly theory is proven to occur in 2020 as a result of the corona pandemic, anomaly in commodity prices and exchange rates on the Indonesia Stock Exchange, especially in the Indonesian Islamic share prices mining sector which proves that the market cannot be accurately predicted if it occurs a sentiment strong enough globally to move investors both in terms of selling or buying shares that previously could not be reflected by the company's stock price.
Pratama & Wijaya, (2020)	The Impact of Ramadhan Effect on Abnormal Return	This study analyzes the effect of market anomalies, namely Ramadhan Effect on several subsectors such as food and beverage, telecommunications,	Kuantitatif, This study used significance test on cumulative abnormal return (CAR) and regression	The result of this study reveal that there is no Ramadhan Effect on Indonesia Stock Exchange (IDX). The result of this study provide recommendations for investors to buy, sell, and

Author, Year	Title Research	Research Purposes	Sample, Methodology	Results
		automotive and components, financial instiution, tobacco manufacturer, retail and trade, and textle and garment on Indonesia Stock Exchange (IDX)		hold the stock during Ramadhan on several subsectors.

Discussion

Based on the results of the literature review that has been studied, several factors that influence the development and relevance of the Efficient Market Hypothesis in the Modern era are market anomalies and behavioral finance. Market anomalies that affect stock market reactions in the Efficient Market Hypothesis such as the Pandemic Covid Effect, January Effect, Ramadhan Effect and Election Days Effect. While for behavioral finance such as Herding behavior also affects stock market reactions.

The Covid Pandemic Effect has a negative effect on Abnormal Returns in the Efficient Market Hypothesis

The Covid-19 virus affects health and has social and economic consequences, starting with a respiratory tract infection that resulted in deaths in the city of Wuhan, China, in late 2019. In addition, the World Health Organization (WHO) declared a global emergency over the coronavirus on January 30, 2020, considering the highest daily death toll in China and its spread to other countries. This will have a cascading impact on the economy in early 2020, which will also affect global capital markets. Due to lockdowns and other measures taken to stop the spread of the virus, the Covid-19 pandemic has caused an economic crisis. As a result, industries including tourism, transportation, and entertainment have experienced a sharp decline.

Based on the research findings by Widodo, (2024), Rizfathanty & Danarsari, (2024), Suryanegara & Pangestuti (2024) there is no relationship between Covid-19 and the existence of the EMH anomaly - nor is there a relationship between the two. Initially, investors viewed the Covid pandemic negatively, so that the IHSG (Composite Stock Index) reached its lowest point in March 2020, which was the lowest level in the last eight years since 2020. However, entering 2021, precisely in early January of the Covid pandemic, investors began to feel more optimistic so that some of them carried out stock buybacks. This phenomenon shows the high interest of investors to buy shares in Indonesia following the country's unstable and declining economic conditions due to the Covid-19 virus which spread rapidly throughout the world and made Indonesia one of the countries with the highest infection rates. This made the stock market and stock trading conditions less conducive and weakened at that time, because all parties, especially the government, were at that time focused on controlling the virus so that they could recover quickly from the pandemic. This research is in line with research from Saputra et al. (2023) and (Sembiring, 2024) which found that there was a significant negative influence between the independent variable max return on abnormal returns during the research period.

January Effect has a negative effect on Abnormal Return on Efficient Market Hypothesis

The January Effect phenomenon is a market anomaly that occurs in January, where stock prices, especially small-cap stocks, tend to increase higher than in other months. This phenomenon is often associated with investor behavior patterns and is considered a form of violation of the efficient market hypothesis (EMH). The EMH states that stock prices reflect

all information available in the market, so there is no opportunity to consistently generate abnormal profits. However, the January Effect shows a predictable seasonal pattern, which contradicts the basic principles of the EMH, especially in its strong form and semi-strong form.

In research conducted by Jannah & Hidayat, (2024) shows that the January Effect has a negative effect on Stock Returns, but not significantly. Where in theory the January Effect stock return tends to increase in January, but the results of the study show the opposite, which tends to be lower. Investors are expected to be more careful in investing by clearly analyzing the issues related to the January Effect. This is in line with research found by Pertiwi et al., (2024) which shows that the January Effect variable has a negative effect on Abnormal Return of stocks. There are several factors that can be seen that the January Effect has a negative effect on Abnormal Return, including the first seen from the market efficiency which is still weak so that negative returns arise, the second seen from the high closing of the JCI in 2018. The influence of an unstable economy and the role of politics that can shake stock prices on the Indonesia Stock Exchange.

Ramadhan Effect berpengaruh negatif terhadap Abnormal Return pada Efficient Market Hypothesis

From the results of the research conducted by Badri (2023) by using the return variable, it shows that the influence of the Ramadan effect on the Jakarta Islamic Index (JII) stock return does not have a significant influence of the Ramadan effect on the JII stock return. The results obtained show that there is no Ramadan effect, which means that an investor can observe and assess market conditions at a certain time carefully so as not to cause excessive volatility and different returns during Ramadan or when there is no Ramadan effect. In line with research was conducted by Pratama & Wijaya (2020) and Supardi & Rasyid (2023), it is known that there is no Ramadan effect or significant difference in stock returns between Ramadan and other months, or it can be concluded that there is no Ramadan effect on the Jakarta Islamic Index (JII) and the FTSE Bursa Malaysia Hijrah Syariah Index (FBMHS). In line with the Efficient Market Hypothesis (EMH) theory which states that in a weak form efficient market, all historical information will be reflected in the current stock price. The implication is that investors cannot predict future stock market values using historical data, as is done in technical analysis. In addition, if stock prices follow a random walk pattern, then changes in stock prices that occur today cannot be used to predict changes in stock prices in the future

Election Days Effect has a negative effect on Abnormal Return in Efficient Market Hypothesis

One of the political issues in many countries is general elections. General elections are free events in which all people directly or indirectly elect the legislative representative body in the country within a certain period of time. These general elections are usually held on average every 4-5 years. The elected legislative body also varies for each country, and it depends on the form and system of the country. This event is a unique phenomenon, which encourages many researchers to conduct research. In the context of event study, namely observing stock prices in the capital market to determine whether or not there is an abnormal return obtained by shareholders due to a certain event, this signaling theory explains that every event will contain information about the market. Elections as political events are thought to contain information that can affect market reactions. Market reactions are indicated by changes in the company's stock price as measured by abnormal returns (Lesmana & Sumani, 2023).

From the results of the research conducted by Lesmana & Sumani (2023) shows that there is no significant difference in abnormal returns before and after the general election events in Indonesia, Malaysia, Singapore, and Pakistan in the last five general elections. For investors and potential investors, the results of this study are expected to provide an overview and information that can be used in making decisions on stocks owned during the general election, especially in the countries studied, namely Indonesia, Malaysia, Singapore, and Pakistan. It is

hoped that by presenting the results of this study, investors can obtain the expected returns. This is in line with the research by Mujadiddah et al. (2020) bahwa *Election Days Effect* berpengaruh negatif terhadap *Abnormal Return*.

The Influence of Financial Behavior on the Efficient Market Hypothesis

The influence of social media sentiment on abnormal returns is explained in the study from Syafitri & Suryani, (2022) shows that social media has been used to inform investors' investment decision-making. Investors use social media because they face limited access to professional data sources such as Bloomberg and Thomson Reuters. As a result, social media platforms such as Instagram serve as an alternative for investors to communicate with other users at a minimum cost. The fact that investors make decisions based on information they obtain from social media indicates that investors are not entirely rational. This irrational investor behavior can be explained by the concept of Financial behavior. The concept of Financial behavior assumes that stock prices are influenced by irrational investor behavior that relies on sentiment and other non-fundamental information. In this context, investors rely on information circulating on social media to make investment decisions. Irrational decision-making by investors stems from their inability to collect and process information from social media and fall under the influence of other people's perspectives. One of the irrational behaviors carried out by investors is herding behavior. Herding behavior is defined as the tendency of investors to follow the behavior of other investors (Handayani & Atikah, 2024). An investor ignores his personal information and tends to follow the collective actions taken by other investors. Herding behavior is caused by several factors including market risk and firm-level uncertainty, market uncertainty, extreme market conditions, high volatility risk, economic or financial crises, declining market conditions, and poor information environments. Results of tests that have been carried out by Handayani & Atikah, (2024) shows that there is no herding behavior in LQ-45 shares on the Indonesia Stock Exchange for the 2021-2023 period, meaning that investors in making investment decisions do not follow market movements or the actions of other investors. This finding is in line with research conducted by Syafitri & Suryani, (2022) which shows that there is no herding behavior in the Indonesian capital market. These results indicate that investors are rational in making investment decisions because they have good access to relevant information about stock price movements in the market.

Conclusion

The results of the analysis of various studies show that a number of phenomena affect abnormal returns in the capital market, which are relevant to the concept of the Efficient Market Hypothesis (EMH). The Covid-19 pandemic, for example, had a negative impact on abnormal returns in early 2020 due to high economic uncertainty due to the global health crisis. The JCI had touched its lowest point in March 2020, but investor optimism began to increase in early 2021. However, the impact of the pandemic does not fully support the existence of the EMH anomaly, as emphasized by various studies. The January Effect phenomenon, which is usually associated with rising stock prices in January, actually shows a negative impact on abnormal returns in the Indonesian market. This is due to the still low market efficiency and external factors such as economic and political instability. Meanwhile, research related to the Ramadhan Effect shows that there is no significant effect on abnormal returns. In accordance with the weak form of the EMH theory, stock prices reflect historical information so that seasonal patterns such as Ramadan do not significantly affect price movements. The Election Days Effect phenomenon also shows that political events such as elections do not have a significant impact on abnormal returns, either before or after the event. Research in various countries, including Indonesia, Malaysia, Singapore, and Pakistan, indicates that the market tends to react rationally to election-related information. On the other hand, financial behavior, including

social media sentiment and herding behavior, does not significantly affect abnormal returns in the Indonesian capital market. Investors are considered quite rational in making decisions, by utilizing relevant information to avoid the influence of irrational market sentiment. This suggests that, despite some anomalies, the Indonesian market is moving towards greater efficiency as access to information increases.

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