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Systematic Literature Review of Market Efficiency in Emerging Markets

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ABSTRACT

This research examines market efficiency in emerging markets through a systematic literature review. Market efficiency, in the context of finance theory, is a condition in which asset prices fully reflect all available information. In emerging markets, achieving efficiency is often constrained by a number of factors. 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

INTRODUCTION

One of the researchable topics related to information that can affect the capital market is market efficiency. In financial theory, a very important concept is market efficiency, which indicates how well asset prices in the market reflect all available data. Market efficiency is usually divided into two categories: decision-based market efficiency and information-based market efficiency. Decision-based market efficiency refers to the accuracy of investors in responding to information, while information-based market efficiency refers to the speed of investors in responding to information (Yulianti & Komara, 2020). The market's ability to accurately reflect all information about financial assets in its prices is called market efficiency (Nuraini, 2024).

Fama (1965) first proposed the efficient market hypothesis, which states that in an efficient market prices thoroughly reflect available information (Susilo et al., 2022). The efficient market hypothesis is known as "market efficiency". This hypothesis can be divided into three categories: weak efficiency occurs when the price of a security in the capital market reflects all information about the previous movement of the security; half-strong efficiency occurs when the price of a security reflects all unpublished information; and strong efficiency occurs when the price of a security reflects all unpublished information (Yulianti & Jayanti, 2020). Here, the semi-strong form market consists of information and decision efficiency (Junaid et al., 2021).

Fama created the efficient market theory (EMT), which states that "an efficient market is one in which the price of a stock at any point in time provides a precise estimate of its intrinsic value." EMT is effective if three conditions are met. First, there are no transaction costs associated with trading securities. Second, every investor agrees that security prices reflect available information. Third, all information is available to all investors (Ahmed, 2021). The extent to which asset prices in the market reflect all available data is called market efficiency.

An efficient market has asset prices that quickly and fully adjust to new data (Fu et al., 2023).

Fama's 1970 efficient market concept states that security prices fully reflect all the information investors need. Fama 1970 emphasizes that no one will have an extraordinary return, and also explains that the information contained in the security explicitly refers to the expected return, which is a function of the risk of the security. Therefore, Fama 1970 suggested that the test of an effective market in weak form would be based on information about the movement of returns, which is a random walk (Budiarso & Pontoh, 2022). An efficient market focuses on the availability of information, which means there is no information asymmetry among stakeholders. This concept says that an efficient market is always associated with information availability, where the price of traded securities has reflected all available information (Simbolon et al., 2023).

Efficient markets are defined as the rapid price changes to incidental information and the time-series independence of price formation in competitive markets. This idea is then widely used in emerging markets to verify how information relates to stocks, especially in emerging markets such as Indonesia where tips are traded. An inefficient market is when investor behavior significantly affects the price of securities, so that the stock price does not reflect the true state of the company. In contrast, an efficient market is when stock prices reflect information about the true state of the company (Arvianti et al., 2023).

According to the efficient market hypothesis, security prices always and fully reflect all available information. If the current price reflects all information, price changes should come from the market's reaction to new information (Turguttopbaş & Omay, 2023). The efficient market hypothesis states that stock prices reflect all available information and in this market the stock price is equal to its intrinsic value (Arashi & Rounaghi, 2022). One of the most important hypotheses in the market is the efficient market hypothesis; bid/ask measures are based on this hypothesis. An

appropriate measure of market efficiency should directly indicate relevant returns and risks (Meng et al., 2023). Investors and other market participants need efficient market information to make good trading decisions and achieve profitable outcomes (Monga et al., 2023).

In the financial industry, efficient markets are essential because, no matter how much resources are put into security analysis, no excessive profits can be made (assuming strong form). This means that investors who want higher returns must bear higher risks because there is a difference between risk and return. If the market is inefficient, investors can benefit from under- or overvaluing securities and earn higher returns for the same risk profile. Educated and experienced investors cannot earn higher returns than novice investors with the same risk profile (Smerkolj & Jeran, 2023).

The efficient market hypothesis says that security prices reflect all available information. In an efficient market, predicting stock prices with only historical data is a difficult task (Said et al., 2022). Since emerging markets often have different characteristics from developed markets, the study of market efficiency in emerging markets is of great interest. Markets with large efficiency, such as emerging markets, can have asset prices that are mispriced and deviate from their fundamental value, which can result in increased market instability and risks for investors. Improving market efficiency is a way to reduce market risk. This can be achieved by increasing information disclosure from market sources so that investors can obtain accurate information about their investments. Government policies that have the force of law can help effective disclosure (Takaishi, 2022).

The concept of market efficiency in emerging markets refers to how well price information reflects all available information in markets that are in a stage of economic development. Markets referred to as "emerging markets" refer to financial and economic markets in countries that are experiencing rapid industrialization and economic growth. These markets often experience higher levels of volatility compared to developed markets.

This can be due to many reasons, such as dependence on commodities, political instability, and exchange rate fluctuations (Galindo-Manrique et al., 2021).

Emerging markets are countries that are undergoing a transition from a more closed and less developed economy to a more open and developed economy. These countries have rapid economic growth and have great market potential due to increased consumer purchasing power (Aydas et al., 2020). The global economy is heavily influenced by emerging markets, which affect trade, investment flows and overall market stability (Hammed & Salisu, 2023).

Very few studies have been conducted on emerging markets with regard to the efficient market hypothesis. Emerging markets are very sensitive to new information, both facts and perceptions, with little fundamental connection to it. This is thought to be because institutional information flows are less efficient and less accurate, so more information is fictional and asymmetric (Nguyen & Parsons, 2022). Given the information deficiencies in emerging markets, the constant and volatile flow of new information presents significant challenges for investors. An understanding of market efficiency in emerging markets is important for international investors, policymakers, and academics as it can influence investment strategies and economic policy decision-making. Therefore, this study aims to determine market efficiency in emerging markets.

METHODS

The method used in this research is Systematic Literature Review (SLR). SLR is a research method designed to identify, evaluate, and synthesize all evidence relevant to a particular research question or topic in a systematic and organized manner. The main purpose of SLR is to provide a thorough and unbiased review of the existing literature in a field of study, so that it can assist in evidence-based decision making. The following are the steps used in writing this article:

1. Formulation of Research Questions, The first step is to formulate a question that is the purpose and focus of the research. The steps in formulating a research question in SLR are to select a topic that is relevant and interesting to research. Make sure

the topic is specific enough to allow in-depth analysis but broad enough to find relevant literature.

2. Article Search, The second step begins with the formulation of inclusion and exclusion criteria, identifying sources of information and ends with the initial article search process. The article search in the SLR research method is a critical process and must be done carefully to ensure that all relevant literature has been identified. The steps to conduct an article search are: identifying relevant databases, determining keywords for article searches, and conducting article searches.
3. Article Collection, In this third step, articles were selected based on the inclusion and exclusion criteria that had been set. The selection of articles can be done with an initial screening by reading the title and abstract to screen for relevant articles and a second screening by reading the full text of the articles to ensure their relevance to the research question.
4. Data Synthesis, In this step, the process of combining and interpreting the results of various studies that have been extracted in the SLR to provide a coherent and comprehensive picture of the topic under study is carried out.

RESULTS AND DISCUSSION

Results

Based on the SLR research steps with the PRISMA approach, the following results were obtained:

1. Formulation of Research Questions

Research questions are specific questions that researchers want to answer through the research process. Where this question determines the objectives and methods to be used in this research. These research questions are formulated as follows:

RQ1: What are the forms of market efficiency and which ones can be achieved by emerging markets?

RQ2: Are there any common market anomalies found in emerging markets, and how do they affect market efficiency?

2. Article Search

Literature search using the Publish or Perish application. The search focused on articles using English and Indonesian and published in 2020-2024. The article search systematized using the keywords market efficiency and emerging markets.

3. Article Collection

Article collection conducted through the Publish or Perish application with the keywords market efficiency and emerging markets obtained 110 articles. Then the articles obtained were selected based on the predetermined inclusion and exclusion criteria, which can be seen in the following chart.

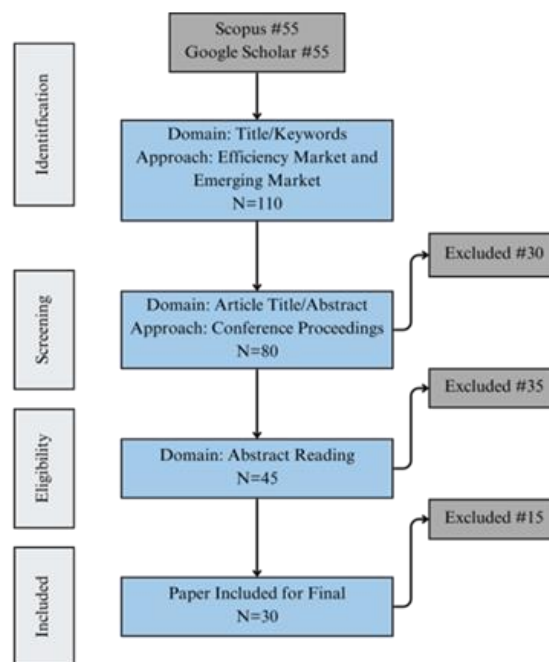


Figure 1. Article Search Chart

4. Data Synthesis

Of the 30 eligible articles, 15 are Scopus indexed and 15 are Google Scholar indexed. Of the

15 Scopus indexed articles, 7% are in Q1, 53% in Q2, 27% in Q3, and 13% in Q4. This can be seen in figure 2.



Figure 2. Article References Based on Publication

Based on the year of publication, market efficiency in emerging markets was most published in 2023

with nine articles, and spread across 28 journals, as can be seen in Figure 3.

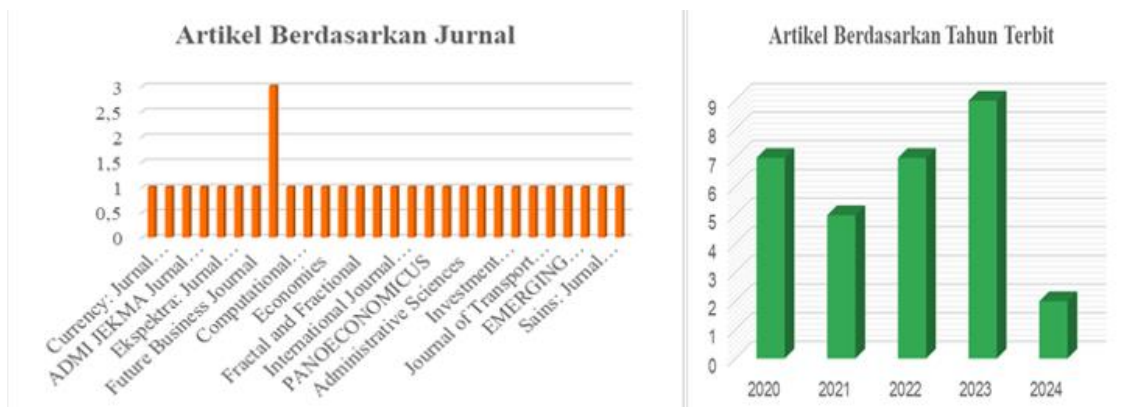


Figure 3. Distribution of Referenced Article

In Figure 4 we can see that the most widely used research method is quantitative. Of the 30 articles, 90% used quantitative methods (27 articles), 7% qualitative (2 articles), and 3% literature review (1 article).

DISCUSSION

1. Forms of Market Efficiency in Emerging Markets

Based on the level of market efficiency, there are three forms of market efficiency, namely:

1) Weak Form of Market Efficiency

This is a capital market where current stock prices reflect information from the past, such as trading volume and prices. Since the current stock price already reflects historical information,

investors cannot use it to predict future changes. Investors will not get unusual returns from past price information in an unstable market (Ady & Mulyaningtyas, 2017; Pasaribu, 2022; Woo et al., 2020; Lee & Choi, 2023; Khalid et al, 2022; Dodig, 2020; Monga et al., 2023; Phanrattinon et al., 2020; Turguttopbaş & Omay, 2023; Smerkolj & Jeran, 2023; Yulianti & Komara, 2020; Yulianti & Jayanti, 2020; Juliana et al., 2023).

2) Half-Strong Form Market Efficiency

A semi-strong form efficient market is a market in which the current stock price of the capital market reflects all published information, such as profits, dividends, stock split announcements, new share issuances, and company financial problems.

The goal is to reduce the amount of inaccurate information about the state of the company and attempt to explain and show the true value of the issuer's shares. All relevant published information is already reflected in the current share price. If the strategy used is only based on published information, investors in semi-strong efficient markets will not get extraordinary returns (Ady & Mulyaningtyas, 2017; Pasaribu, 2022; Woo et al., 2020; Marisetty & Madasu, 2021).

3) Strong Form Market Efficiency

A highly efficient capital market in strong form is the most efficient capital market. The concept of an efficient capital market in a strong form means that stock prices reflect all information, both published and unpublished, so investors will not be able to obtain unusual returns. The higher the level of capital market efficiency, the more difficult it is for investors to obtain unusual returns (Ady & Mulyaningtyas, 2017; Pasaribu, 2022; Woo et al., 2020).

It can be concluded that weak-form market efficiency is more likely to be achieved by emerging markets. Semi-strong market efficiency has not been fully achieved as emerging markets often face challenges in terms of transparency, access to public information, and the speed of information integration into prices. While strong form market efficiency is rarely achieved, as less stringent regulation and supervision of insider trading makes this form of efficiency difficult to realize.

2. Common Market Anomalies Found in Emerging Markets

Emerging markets refer to countries that are in the process of industrializing and have rapid economic growth but have not yet reached the level of economic maturity and stability of developed countries. These countries often offer great investment opportunities due to their high growth potential, but also come with greater risks. Emerging markets often exhibit market anomalies that may be different or more pronounced compared to developed markets. Market anomalies are events or patterns in financial markets that contradict the assumptions or predictions of traditional financial

theory, particularly the Efficient Market Hypothesis (EMH). In research (Woo et al., 2020) there are several market anomalies commonly found in emerging markets including:

1) Winner-Loser Effect/Reverse Effect

Investors are overly pessimistic about failing portfolios and overly optimistic about successful portfolios, which causes stock prices to deviate from their true value. The Winner-Loser Effect arises when the market automatically corrects over a period of time. Past losers will earn positive excess returns, while past winners will earn negative excess returns.

2) Momentum Effect

In addition, developed stock markets and some emerging stock markets have a momentum effect on portfolios selected by industry; industry portfolios have a significant impact on the United States stock market, with unusually higher returns than individual portfolios.

3) January Effect

The Tax Loss Selling Hypothesis and the Window Effect Hypothesis are the most important explanations of the January effect. These hypotheses state that individuals will sell stocks at the end of the year to achieve the goal of paying lower taxes, offsetting the appreciation of other stocks in the year. People will buy back these stocks after the end of the year. The stock market experiences a decline at the end of the year and a rise in January of the following year as a result of this collective buying and selling. Institutional investors want to decorate year-end reports by selling losing stocks and buying profitable stocks, according to the Window Securities Hypothesis. Such trading puts profitable stocks under price pressure, while losing stocks are under price pressure. When institutional investors' selling behavior stops at the end of the year, stocks that were depressed in the previous year will experience a tremendous rebound in January, which will result in a greater positive trend in earnings.

4) Weekend Effect and Reverse Weekend Effect

It is easy to distinguish the Weekend Effect from the Reverse Weekend Effect. A higher yield on

Friday than Monday is called the Weekend Effect, and a lower yield on Monday than Friday is called the Reverse Weekend Effect. Many experts have discovered the impact of weekends on the stock, foreign exchange, and money markets.

The effect of anomalies on market efficiency is that these anomalies show that emerging markets are not always efficient, resulting in high volatility and arbitrage opportunities, but also adding uncertainty and risk for investors. Market regulators often seek to reduce these anomalies through policy reforms to improve market efficiency and stability.

CONCLUSION

This study presents a systematic literature review on market efficiency in emerging markets. It was found that emerging markets generally face challenges in achieving full market efficiency. Three forms of market efficiency were identified: weak form, semi-strong form, and strong form. Emerging markets tend to more easily achieve weak-form market efficiency, where asset prices reflect historical information but often do not fully reflect public or private information. These markets often suffer from limitations in transparency and speed of information integration, which hinders the achievement of semi-strong-form and strong-form efficiency. In addition, market anomalies are more common in emerging markets, indicating that asset prices often deviate from their fundamental value due to the influence of volatile and sometimes asymmetric information. Therefore, to improve market efficiency in emerging markets, improvements in information disclosure and stricter regulation are needed to reduce asymmetric information and improve the reliability of asset prices.

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