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Herding Behavior in Capital Markets: A Literature Review

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Abstract. Herding behavior is one of the most prominent forms of behavioral bias in the face of high uncertainty affecting investors' investment decisions. After the 1990s, herding behavior became more widely recognized in the capital market. The goal of this study is to explain herding behavior using a literature review approach, in order to obtain a comprehensive description and classification of existing research on herding behavior that occurs in various capital markets around the world. This study employs a number of credible international journals to explain the evolution of herding behavior research in various capital markets around the world. The findings of the literature review show a variety of empirical evidence from various studies on herding behavior, both for specific stocks using micro data or ownership data and for the entire market using aggregate market activity data through stock price movements. Most of the outputs of literature review point that herd behavior is more frequently detected in emerging and frontier capital markets. Finally this literature review study will provide an opportunity related the prospects for research on herding behavior in the future.

Keywords: Behavioral finance, herding behavior, capital market, literature review

1. Introduction

The paradigm of traditional financial theory for understanding financial markets explains that people are always assumed to behave rationally and that markets are efficient (perfect). Rationality has two meanings, namely when investors receive new information, they update their beliefs, and with their beliefs, investors make normatively acceptable decisions. While the concept of efficient capital markets explains that all past financial information is reflected in current stock prices or returns [1], [2], [3], [4], [5]. With the passage of time and the development of various events in the financial market, contradicting the concept of a rational and efficient capital market, some market anomalies have emerged, such as the January effect, day of the week effect, returns over trading, and non-trading periods, stock return volatility, phenomena the internet and also the occurrence of crises several times in the world which caused high uncertainty. This situation suggests that the assumption of efficient capital markets is no longer relevant to current conditions, as many behavioral deviations have emerged that make it difficult to

benefit from optimal asset allocation and diversification [6], [7]. One of the most visible forms of behavioral bias in the face of a highly uncertain world is herd behavior.

The herding phenomenon has been studied long before it was widely known [8], [9], [10] in the 1980s. In his book "La psychology des foules", [8] explained the sociopolitical dangers and risks posed by human group behavior. [9], in his Theory of the Leisure Class, explained human group behavior in the context of consumerism, in the different social classes. [10], in his book The General Theory of Employment, Interest, and Money, attempted to explain herding, arguing for irrationality and believing that herding occurred in markets. Furthermore, [11] used [9] ideas about mass consumption and developed the train-car influence theory to explain the human tendency to follow the behavior and thoughts of others, when in fact they opine differently [12]. [13], studied the social environment influence on individual decision-making behavior, and found that individuals often rely on group opinions and ignore their signals [14].

All herding research that developed before the 1990s did not specifically address herd behavior in financial markets. Academically, the study of herd behavior in financial markets is widely recognized since [15] and [16] researched herding behavior, although they did not specifically address the capital market. [15] and [16] having studied the rationality behind herd behavior and its possible impact, further explained that individuals lean to emulate the behavior of others by hiding their information, which leads to the external influence of herding. These two researchers pioneered the development of research on herd behavior in capital markets. Herd behavior on the capital market is identified as a inclination in investor behavior to follow the decisions of other investors when making investment decisions. Herding behavior describes the interaction among investors [17]. Herd behavior also includes behavioral similarities due to direct or indirect interactions between individuals in capital markets [18]. [19], interpreted herding behavior as a heuristic behavior as investors follow other investors under uncertain and complex conditions, assuming that other investors have better information on the stock market, but the quality of the information is lower.

Many financial experts have demonstrated that the phenomenon of herd behavior exists in dissimilar capital markets round the world, whether it is individual, institutional, and mutual fund investors, or the entire capital market [20], [21]. Herding behavior is often considered to be a major cause of instability and volatility in capital markets [20], [21], [22], and is generally considered to be widespread, although empirical evidence remains very rare [23]. Herd behavior also exists in developed capital markets, emerging capital markets, and frontier capital markets [24], [25], [26], [27], [28], [29], [30], [6], although results have been mixed. Based on this interpretation, it is obligatory to map the findings of previous research on herding behavior in the capital market as a whole considering that herding behavior is one of the important elements of investor behavior.

The goal of this study is to elucidate herd behavior using a literature review approach to provide a comprehensive description and classification of existing herd behavior research found in various capital markets around the world. The results of this study should advance the study of herd behavior in the future.

2. Herding Behavior: Basic Theoretical

The concepts of rationality and efficient capital markets are the two pillars of modern financial management theory that explain how investors should behave in making investment decisions following rational decision-making rules [31]. Throughout its development, various events such as market anomalies and several global crises called into question traditional financial theory's assumptions about rationality and efficient capital markets. Anomalies in the market indicate that the return on investment is still higher on particular days of the week, at specific times of the month, or during certain months of the

year. This pattern of events does not only occur in the capital market of the United States, but also in capital markets in other countries, as well as in financial products other than stocks such as futures, Treasury bills, debt, and exchange rates [32]. This condition demonstrates that markets are not perfectly efficient and that psychological factors influence people's investment decisions that encourage them to act irrationally [7], [5].

Following the occurrence of various financial events and traditional financial theory's inability to explain them, the theory of behavioral finance emerged, which discusses various unpredictable and inconsistent financial events that demonstrate that markets are inefficacious, and individual is not rational when making investment decision. Behavioral finance is a newer approach that is rapidly evolving as a response to the paradigm shift that occurs in the financial market that traditional financial theory cannot explain [7], [33]. Behavioral finance attempts to explain individual's economic decisions by combining theories from behavioral and cognitive psychology with traditional economics and finance. [33]. Adherents of this behavioral theory argue that when in making investment decisions, society is irrational, and that irrational behavior is a common problem, not an anomaly. Behavioral finance adherents believe that the characteristics of market participants and the available information structure will systematically influence individual investment decisions and market price movements. Behavioral finance exploded in popularity in the 1980s. In conveying their ideas, the founders of behavioral finance theory were inspired by the behavioral economics opinion of [34], who stated that individuals in making judgments and choosing alternative decisions are not always consistent and rational [31].

According to [35], behavioral finance is a financial science paradigm that explains aspects of the human mindset, both rational and irrational, those influence investment decisions, causing bias. Herding behavior is one of the most well-known and widely discussed behavioral biases among experts. Although it appears to be difficult to explain the concept of herding behavior because there is no single definition of herding that can be accepted and approved by researchers, most researchers still put forward the concept of herding based on their research framework [36]. According to [37], herding is an idea that causes the entire population to make systematically incorrect decisions. In a broader sense, he suggests that herding can be interpreted as a pattern of behavior shared by individuals. Individual correlation is one of the prerequisites for the occurrence of herding behavior, which can cause investors to buy the same stock, usually due to the investor's ability to observe and follow other decisions [36]. According to [22], herding behavior arises from the similarity of information received by market participants, which encourages them to take the same actions individually [38]. [39], expressed nearly the same opinion, defining herding as trading behavior by investors with the same light. Herding is also defined as market participants' proclivity to imitate the behavior of other investor [25]. According to [40], herding in financial markets is the behavior of imitating other investors' investment decisions without paying attention to fundamental analysis. Meanwhile [41], explain that herding in the financial market occurs when a group of investors trades in the same direction for a set period, resulting in group movements in and out of the market. [15], [16], and [42] use different terms to describe the phenomenon of market herding, namely the behavior of people’s who intentionally emulate the behavior of their precursors regardless of their personal light. In various financial journals, the terms of her behavior with cascade information is frequently used interchangeably. Nonetheless, during its evolution, some researchers attempted to differentiate between herding behavior and cascade information [36]. Pursuant to [43], herding behavior is a convergence of behavior, whereas cascade information is the result of ignoring personal information. Herding behavior is susceptible to change as a result of new and powerful information [44], Cascade information, besides that, is more stable because no information can change individual behavior [45]. The distinction between the two is found in the use of personal information in investment decisions.

Herding behavior is a key construct in cognitive economics that is widely connecting with financial markets [46], influencing the price mechanism and investor trading decisions [47]. Herding behavior can be classified into two types: intentional herding, which occurs when investors deliberately follow other investors in making investment decisions to always expect a positive payoff, and spurious herding, which occurs when investor responses are correlated with factors that investors typically face. For example, the availability and interpretation of information that may lead to unintended investment decisions are correlated [48], as is the presence of similar characteristics or investment styles [49], [50]. The payoff that investors receive in intentional herding can be in the form of information; this condition occurs because investors believe that information obtained from other people or colleagues is superior to information obtained by them [37]. There are two types of intentional herding behavior: rational and irrational herding behavior. Investors may not have perfect information and knowledge about actual market conditions when making investment decisions in rational herding behavior, as a result, they believe more informative market signals and follow them when making investment decisions [51], [52]. Rationality in herding behavior is associated with externalities such as information access or incentive problems, which can lead to investors making suboptimal investment decisions [47]. Several factors contribute to rational herding behavior in the market, including informational cascades, herding-based compensation, and herding-based reputation.

Irrational herding behavior, also known as non-informational-based herding, is a herding bias that can result in bubble phenomena and imitative behavior. This irrational herding behavior is caused by psychological drives and restraints such as peer pressure and/or social habits [21]. In an uncertain environment, [10] proposed that investors can be influenced by sociological factors that encourage market participants to emulate the deportment of others. Experts may also exhibit herding behavior as a result of light scarcity, information asymmetry, and the application of general heuristic rules [53]. Irrational herding behavior causes asset prices to deviate from their fundamental values, worsening return volatility, and unstable financial markets, ultimately leading to the financial system's fragility [47]. This irrational herding behavior makes markets inefficient; asset prices do not correspond to their fundamental values, resulting in asset pricing errors [40], [21]. According to [54], psychological factors and investor sentiment are more important than rationality in influencing trading behavior, which leads to the herding phenomenon. This behavior influences the risk level and the characteristics of the rate of return associated with the movement of asset prices in the market, which has an impact on the model of asset price formation [55].[37], classified herd behavior into two types: rational and not rational. Rationality in herding behavior is associated with externalities such as information access or incentive problems, which can lead to investors making suboptimal investment decisions [47]. In the financial literature, three main models of rational herding behavior are described [37]:

1) Externalities payoff model
   This model explains that in herding behavior, the payoff will increase as more and more people do the same behavior. The externalities payoff model is divided into 3, namely bank run, liquidity in the market and information acquisition.
2) The principal-agent model
   This model is often also referred to as the reputation model, which is a model that shows the fact that professional investors are compared according to relative not absolute performance [56]. This shows that managers prefer to follow the behavior of their colleagues rather than take unconventional decisions to maintain their reputation.

3) Informational cascade models
   This model was developed by [15] and [16], to study the rationality behind herding behavior and its potential effects. People are more likely to imitate the behavior of others by hiding their own information so that herding externalities appear. If someone always follows his own signal, it will provide information to everyone, so that negative externalities can be avoided.

Irrational herding, mention by [37], is related to psychological aspects of investors, which show that investors will fully imitate the actions of other investors regardless of their own beliefs, including ignoring rational analysis, which means that investors imitate other investors without any knowledge, purely imitating.

Herding behavior in financial markets can be caused by three factors [44]:

1) Investors do herding because they believe that other investors have personal information as seen from the superior returns on the trading strategies they carry out.
2) Investors do herding because they want to maintain the compensation scheme and the continuity of their investment
3) Investors do herding because they want to adjust their own choices with others regardless of their beliefs

The first and second reasons mentioned above are examples of rational herding behavior, whereas the third reason is an example of irrational herding behavior because it is consistent with the irrational perspective on investor psychology [37].

3. Methods

This study is an applied research that uses a literature review approach, bringing together various reputed journals dealing with research on herding behavior in different capital markets across the globe. A review of the herding behavior literature is a combination of theory and practice that helps to systematically assess the contributions of the existing literature [57]. Explicit algorithms can be used in literature review methods to search and evaluate existing literature. Literature review using structured, clear and repeatable procedures to improve the quality of the literature review process and its results [58]. This literature review approach is able to describe the progress of herding research from its inception to the present in different capital markets around the world. This study uses more than 80 reputable international journals to explain research profiles on herding behavior in the capital market, both in certain stocks carried out by individual investors, institutional and mutual funds, as well as aggregate herding behavior in the market, also research on herding behavior in developed, emerging, and frontier capital markets. We divide the article on herding behavior into three parts: conceptual research, theoretical research and empirical research. Conceptual article contains a conceptual framework for herding behavior in capital markets. Theoretical works use simulations or mathematical models in the absence of empirical data to explain the systematic rational knowledge structure of herding behavior. Empirical research is research that uses data as a basis to answer research hypotheses and explain herding behavior that occurs in various capital markets around the world. Literature research as the basis for a comprehensive explanation of herding behavior in capital markets, while identifying avenues for future expansion of herding behavior.

4. Results and Discussion

4.1. Herding in Capital Market: Individual, Institutional, and Mutual Fund Investor Herding

In the financial literature, herding behavior is classified into two types: herding on specific stocks and herding in the aggregate capital market. Herding behavior on specific stocks indicates that individuals or groups of investors only focus on a few stocks at a time and ignore other stocks with similar characteristics [47]. Micro data or ownership data is used in research on herding behavior in specific stocks to determine whether certain types of investors exhibit herding behavior [21]. Herding behavior research that employs micro data can be divided into three categories [21]:

1) Research on individual investors
2) Research on institutional investors
3) Research on mutual fund investors

Individual investor herding behavior research is still limited. [59] explains in his paper "Stock Price and Social Dynamics" that stock price volatility is higher than what traditional financial theory can reasonably explain as a result of individual investors' investment decisions. In their paper "Noise Trade Risk in Financial Markets," [60] explain that some investors are irrational when reacting to new information about asset prices and investment choices. Furthermore, [59] and [60] stated that the influence of fad and fashion tends to influence individual investors' decisions of investment. [41], studied firm's listed on the NYSE period 1977 to 1996, using monthly data of stock returns, annual capitalizations of market, and the annual fraction of shares held by institutional investors. According to the findings of his research, herd behavior by individual investors and investors of institution occurs in the capital market and influences stock returns, but herding behavior by institutional investors has a greater influence on changes in stock prices than herding behavior by individual investors. [22], studied 769 tax exempt funds in the United States and discovered that pension fund managers engaged in less herding behavior. [61], investigated momentum and herd behavior in the US mutual fund industries, employing the herding LSV, and discovering evidence consistent with momentum but not herding behavior. [62], studied institutional investors in NYSE, AMEX, and NASDAQ stocks, start March 1983 to December 1997 and discovered that institutional investors herded and followed momentum strategies, but there was no strong proof that herding by institutional caused prices to move far from basic values. Other research has found that herd behavior between institutional investors in the US capital market [63], [64].

[65], discovered herding behavior of individual investors in the Republic of China during the period May 4, 1999 to December 4, 2000 in their research on individual investors in the Republic of China. This behavior is consistent with trading between agents who have asymmetric information. Individual investors' trading behavior is correlated with the distance between their residence and the company, and this behavior is influenced by the asymmetric reaction to the company's information. [66], conducted research on individual investors' herd behavior in the German capital market, and the outcomes revealed that individual investors in trading are coordinated by speculative motives, as a result, they follow the lead of other investors when making investment decisions. Furthermore, [67], conducted research on the United States capital market of 665,533 investors in large securities companies between January 1997 and June 1999, and the results showed that herding behavior was clearer and stronger in individual investors when compared to mutual fund investor herding, and it was becoming stronger over time. According to [68], mutual fund investors engage in herding behavior when purchasing securities with a low level of liquidity and a high market to book ratio. [69], discovered negative herding behavior in mutual fund managers who focus on excessive opinions from a subset of traders or themselves by entering or exiting stock market positions. [70], discovered that the level of individual investor herd behavior was highly

dependent on investor sophistication in a study of 87,373 French private investors in major European securities companies from January 1999 to December 2006. Investors outperform herders in terms of extreme investment returns and risk performance. [71], conducted research on individual and investors of institutional in China and discovered that individual investors' herding behavior was influenced by a lack of information, causing them to spread their money evenly across all stocks.

Furthermore, because they are affected by market pulse and newsworthy events, individual investors place a greater emphasis on public light when trading. Meanwhile, institutional investors have better trading information, are more selective, and react asymmetrically to market ups and downs. [72], conducted research on the Swedish stock market from March 2006 to December 2014 and discovered that cumulative stock purchases and investment portfolio value reduced the divination of individual herd behavior, whereas high portfolio return values increased herding behavior.

[73], [74], [75] attempt to explain herding behavior using the reputation of fund managers or financial analysts [33]. [76] and [77] expanded a herding model based on fees for investment managers who are heavily influenced by their performance in comparison to other professionals which can make them lose incentives if the managed portfolio is inefficient, this condition encourages investment managers to carry out herding behavior [33].

4.2. Herding in Capital Market: Aggregate Market Herding

In all markets, herding behavior demonstrates that investors tend to follow market trends and act in response to market movements [24], [25]. [24], used an empirical method for determining herding behavior in stock returns using the cross-sectional standard deviation of returns to conduct research on the investment behavior of investors in the US stock market (CSSD). According to the findings, In the US capital market, there is no proof of herding behavior. [25], attempted to improve on [24] approach by incorporating additional parameters into the regression model to develop a more sensitive technique for detecting herding behavior in stock returns. [25], studied herding behavior in developed and developing countries, specifically in the capital markets of the United States, Hong Kong, Japan, South Korea, and Taiwan. The findings show that herd behavior is more common in developing countries than in developed countries. This is because in developed countries, information is more readily available and there are many high-quality sophisticated analytical tools available to investors, whereas in developing countries, government intervention in financial markets is more prevalent, which can lead to herding behavior [25]. The model developed by Chang et al. is broadly used in detecting herding behavior in various capital markets, with mixed results.

Herding behavior is thought to be more common in stressful or extreme market conditions, as evidenced by the market's high level of uncertainty and volatility [78]. Investors are more likely to panic and be fearful in stressful or extreme market conditions, leading them to follow market trends [24]. [79], used daily US Exchange Traded Funds data to conduct research on the US capital market during extreme market conditions, and the results revealed no herding behavior.

[80], discovered herd behavior in the Italian capital market during extreme conditions of market and connected it to capital market uncertainty. [81], used daily stock market data to analyze herd behavior in the Australian capital market and discovered no herding behavior. [82], attempted to delve herding behavior in the Chinese capital market using [24] approach and discovered evidence that contradicted herding behavior. [83], observed herd behavior in the Japanese capital market throughout extreme conditions of market and discovered it. [84], discovered herd behavior in the Greek capital market both before and after the 1999 crisis. [26], investigated herding behavior in the Greek, Italian, Portuguese, and Spanish capital markets and discovered that herding occurred only in the Portuguese capital market. [55], observed stocks A and B in the Chinese capital market and discovered that shares owned by government

companies exhibited lower herding behavior, whereas privately owned shares exhibited higher herding behavior. This condition can occur because government shares are subject to government intervention and thus cannot fall, whereas private shares are exacerbated by herding behavior caused by the presence of foreign institutional investors [47]. During market downturns, herd behavior is also thought to be more common [25], [85], [86], [87]. [38], discovered herd behavior in Singapore, Thailand, Malaysia, the Philippines, and Indonesian capital markets, which was primarily caused by the Fed Fund Rate and cross-country herding. [88], also investigated this behavior in the Thai capital market, discovering it throughout extreme market movements, and unstable conditions. [89], investigated herding in the Thai capital market and discovered no herd behavior when the market was trending downward or upward. [90], investigated herding behavior in Indonesia, Malaysia, Philippines, Singapore, and Thailand, finding it in Malaysia and the Philippines but not in Indonesia, Singapore, or Thailand between 2008 and 2014 period.

4.3. Herding in Capital Market: Developed, Emerging and Frontier Capital Market

According to a number of experts, herding behavior in the capital market is more usual in emerging and frontier markets than in developed markets. [24], initiated research on herd behavior in developed capital markets in 1995 by conducting research on the United States stock market from 1962 to 1988, using daily and monthly closing prices of firms listed on the NYSE and Amex capital market. The study's findings indicate that this behavior does not occur in the American capital market, whether securities prices are rising or falling, or when the market is under stress. [25], investigated herd behavior in the stock markets of the United States, Hong Kong, and Japan, and the results revealed that this behavior was detected in the securities markets of the United States, Japan, and Hong Kong, only detected when market conditions were under stress or when price movements were extreme. [40], studied herding in the United States and discovered that herding occurred during market stress, both when the market rose and fell, and that the Asian crisis, mainly the Russian crisis, reduced herding behavior. [79], investigated this bias behavior in the US capital market throughout extreme market conditions and discovered no herding behavior. [81], investigated herding behavior in the Australian stock market and discovered that it did not exist. [17], conducted herding research in seven developed stock market countries (Australia, France, Germany, Hong Kong, Japan, England, and the United States), and the results revealed that herding behavior occurred in almost all developed stock markets, with the exception of the US stock market, where this behavior take place only when the market is stressed. [26], conducted research in Portugal and Spain and discovered that herding behavior only occurred in the Portuguese capital market from 1998 to 2008, with herding behavior being more intense during the 2007-2008 financial crises.

[91], studied herding behavior in high-income developed countries (the United States, the United Kingdom, Germany, France, the Netherlands, Austria, & Hong Kong), and the outputs point that there was no this behavior detected in these countries. Herd behavior was especially strong in the Singapore capital market throughout the financial crisis, as well as in bullish and bearish market conditions, according to [27]. [92], conducted research on the Singapore capital market and discovered that herding behavior was not observed on this place. [29], investigated the Singapore stock market and discovered that herding behavior was not observed in either rising or falling market conditions. [78], examined the capital markets of the US, UK, and Germany, and found that no herding behavior was observed during the study period, with herding behavior occurring only during a crisis in England due to the fear factor. [38], conducted research in the US and Singapore, and discovered this behavior in both countries. [93], discovered that no herding behavior was observed on the Singapore stock exchange.

[17], performed research on herd behavior in emerging market countries on Latin American stock markets (Argentina, Brazil, Chile, and Mexico) from 1988 to 2009. The results revealed no herding behavior in these countries, with only herding behavior detected during stressful market conditions. [28], conducted

research in the same Latin American countries and discovered that herding behavior was only observed on the Chilean stock market. Argentina, Chile, and Mexico's stock markets all exhibit the asymmetric herding effect. [91], conducted herding behavior research in Argentina, Brazil, and Mexico, and the results revealed that no herding behavior was detected. The Cantilever Regression analysis approach only detected this behavior in the Mexican stock market. [29], conducted research in Argentina, Brazil, Chile, and Mexico, and their findings revealed that herd behavior was only observed in the Chilean and Mexican capital markets.

[30], conducted research on a number of African countries (South Africa, Egypt, Morocco, Kenya, and Nigeria) that are emerging capital markets, and the findings show that herding behavior is detected in all African capital markets. South Africa has the lowest level of herding behavior. [25], used daily stock price data and market indices to find out herding behavior in the South Korean and Taiwan stock markets. The findings indicate that herding behavior occurs in countries, whether the market is rising or falling, and when the market is stressed. [94], studied herding behavior in China using the Shanghai and Shenzhen Indices, the results revealed that herding behavior existed for Shanghai and Shenzhen B stocks during a stressful market, but not for Shanghai and Shenzhen A stocks.

[82], conducted the same study on the Chinese capital market and discovered no proof of herding behavior. [55], performed a similar research on the Shanghai and Shenzhen capital market, and the results showed that this behavior occurred during both rising and falling markets. [40], investigated herd behavior in South Korea and discovered that it occurred primarily during times of market stress, both in bearish and bullish markets. The Asian crisis, particularly the Russian crisis, was a watershed moment in herding behavior, allowing the market to rebalance. [17], performed herding behavior research in six Asian countries (China, South Korea, Indonesia, Malaysia, Taiwan, and Thailand). The findings revealed that this behavior was present in all markets, both rising and falling. [47], conducted research on the Pakistan capital market, and the findings revealed that herding behavior was not observed throughout the 2002-2007, but only during the 2005 liquidity crisis due to information asymmetry. [91], conducted herding research in Malaysia and discovered no evidence of herding behavior. [95], investigated herding behavior in the Indian capital market and discovered that it occurred along the research period, with the worst occurring along a crisis. [96], conducted research on the Taiwan capital market and discovered herding behavior during the 2007-2008 crises, which was driven by investor fear. Herding behavior was discovered by [92] in China and Indonesia.

Research on herding behavior in frontier markets is still limited. [6], conducted research on 4 frontier markets in the Balkans (Bulgaria, Croatia, Romania and Slovenia) start October 2000 to December 2016. Overall herding behavior was more strongly detected in the Romanian capital market, including after the global financial crisis, as well as when market volatility was high and low, while it was detected at a significant level of 90% in Slovenia. Herding behavior is only detected in Bulgaria when market volatility is low. Another finding is that cross-market herding has a strong influence on herding behavior in the Balkan region.

5. Conclusion

The review of the literature provides a wide picture of the evolution of herding behavior around the world. The aim of this research is to explain herding behavior using a literature review approach, to obtain a comprehensive description and classification of existing research on herding behavior that occurs in various capital markets around the world. The findings of the literature review show a variety of empirical evidence from various studies on herding behavior, both for specific stocks using micro data or ownership data and for the entire market using aggregate market activity data via stock price movements. Individual, institutional, and mutual fund investors' herding behavior on specific stocks continue to vary,

but the majority exhibit herding behavior. The findings of some experts' research on global capital markets remain varied and inconsistent. Several studies have shown that herding behavior does not occur in developed countries because the information is more readily available in developed countries and there are many high-quality, sophisticated analytical tools available to investors [24], [79], [25]. Herding practices are more prevalent in Latin America, Africa, Asia and ASEAN countries overall, but are not uniform across all countries. The results of the literature review also show that herding behavior is detected in developed, emerging, and frontier capital markets, although not thoroughly, which means that the results of research on the three categories of capital markets are still diverse [24], [79], [55], [25], [30], [6]. Herding behavior tends to occur in developed markets when the condition is under stress, although it is not detected in all countries. Most of the outputs of previous research point that herd behavior is more frequently detected in emerging and frontier capital markets as also stated by [25], which explains that herding behavior is still prominent in emerging and frontier securities markets due to high government interference in financial markets that can trigger herding behavior. Overall, the results of research on herding behavior still have great opportunities to be studied in the future and are very important to explore.

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