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# Herd Behavior and its Effect on the Stock Market: An Economic Perspective

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## Abstract

*This study aims to shed light on the concept of herd behavior and its impact on the financial and stock markets, on which some studies were conducted. Herding means following the decisions of others rather than having a unique or different decision taken by a certain group. In this regard, herd behavior falls into two main disciplines: psychological and economic. The current study presents the economic point of view regarding herd behavior, its impact on the stock markets, and how it can cause changes in stock prices by either going up or down; its effect during the financial crisis, and the role it may play during the creation of economic bubbles. The study shows that herd behavior has an apparent impact on the status of the stock markets and the values of prices. Deeper research is recommended to be conducted concerning aspects such as the impact of culture, the region, the country, etc., on this type of economic behavior.*

**Keywords:** Herd behavior, stock markets, stock prices, bubbles.

## 1. Introduction

The purpose of this study is to analyze the impact of herd behavior on the stock markets. "Herd behavior" is a term used for the behavior of a person in a group when he acts according to the behavior of the group to which he belongs without thinking or planning. Basically, this term refers to the behavior of animals in a flock or flock of birds, especially when they sense danger. Herding is defined as the phenomenon of people following a crowd for a given period, sometimes even regardless of individual information suggesting something else (Rook, 2006). It is a psychological phenomenon that occurs when people lose their ability to make the appropriate decision and assume that others know more than them and that their behavior may be the right one, and they submit to the dominant without thinking, which is similar to the behavior of the herd.

The first person to call this behavior by this name and formulate it as a scientific philosophical theory is the biologist Hamilton, who stated that each member of a group serves himself in the first place where the danger is reduced by entering with the group and their behavior, thus the herd appears in the appearance of one unit.

The stock markets are clearly reflected in this theory, especially when the markets descend or collapse, so people flock to sell for fear of loss, and the loss of their capital is what is called "selling the herd," so we see offers without requests and perhaps at maximum rates. It is a form of herd theory.

Herd behavior, however, cannot be fully understood from a single perspective alone. It has economic and social psychology perspectives. In early economics, herd behavior gained the attention of researchers like Veblen, who studied the sudden shifts in consumer behavior such as fads and fashion. In the early 1950s, Harvey Leibenstein introduced the bandwagon metaphor in economics. He defined it as "the extent to which demand for a commodity is increased due to the fact that others

are also consuming the same commodity." Herd behavior in social psychology is understood as an irrational and unconscious process (Rook, 2006).

There are major differences between economists and psychologists in terms of assumptions as well as methodology related to herd behavior. Economists consider this topic "how" and "how much" to get an advantage from it. They concentrate on macro-level processes while keeping individual motivations and preferences constant. Psychologists seek to answer "Why" and "When" people feel motivated to engage in collective behavior. They concentrate on micro-level processes while ignoring the institutional level. Moreover, economists frequently concentrate on macro-level processes while keeping individual motivations and preferences intact, while psychologists often focus on micro-level processes while ignoring the effect of a given action on the structural level. In this article, we will tackle herd behavior from an economic point of view and in particular, how herd behavior affects the stock markets in terms of stock prices, their impact during the crisis, and their potential effect on the creation of economic bubbles.

This paper proposes the following questions:

- Is there a significant impact of herd behavior on the stock markets in terms of price changes?
- What is the effect of herd behavior on economic bubble creation?
- What is the impact of herd behavior during economic crises?

The paper will evoke the literature regarding herd behavior and its impact on the economy, especially on stock markets. Then different points will be discussed in detail regarding the impact of herd behavior on stock markets, especially during economic crises and economic bubbles. Finally, several conclusions will be made based on the obtained results, and some recommendations will be proposed.

## 2. Literature review

Raafat et al. (2009) defined herding as the "synchronization of individuals' thoughts and activities in a group through local interactions between persons rather than by the deliberate coordination of the central authority in the community." Herding is also considered a basic construct, especially with the massive use of the internet for many collective phenomena, ranging from everyday social conduct, consumer decisions, economic bubbles, and political movements. Herd behavior is mainly a group activity where there is no centralized direction or guidance. For example, in economics and finance, "herding" is the situation in which participants in the markets respond to knowledge about the behavior of market operators or participants, rather than the behavior of the markets. In other words, herd behavior is seen as a phenomenon in which, collectively, individuals act as part of a group, often making decisions as a group that they would not make as individuals (Raafat et al., 2009).

Further, accumulating evidence in different fields of conduct research suggests that humans have neural, psychological, and compartmental mechanisms that form highly vulnerable minds. These integrated mechanisms are evolutionary products that have helped us survive. Yet such adaptive instruments can lead to serious errors in modern environments in which individual interconnections are much denser than in primordial environments where the human mind developed and externalities arise from individual behaviors. Recent research shows that herding may include a broader range of social behaviors than previously thought (Raafat et al., 2009).

There are two general theories or explanations regarding herding or herd behavior. The first one is that social conformity pressure implies that people want to be recognized, even though that conflicts with their instincts – and this means behaving like other people. The other thing is that it is hard to believe a big group where "two heads are better than one" may be incorrect, and people obey the behavior of the group on the mistaken assumption that the group knows something that the person does not know (Tuominen, 2017). There are many different literature studies on the concept of herd behavior. Each field of the social sciences covers the subject and often uses closely related terminology such as conformity, mass psychology, or group or collective behavior. The subject is intensively examined, even in social biology or in fields like computer science. However, the research carried out in other fields is largely silent in each area. In this respect, the French sociologist Le Bon (1895) and the political economist Veblen (1899) were two of the earliest contributors to the theory of herding and crowd psychology (1899). On the other hand, the economist Veblen, in his book "The Theory of the Leisure Class" analyzes the herding behavior of various social classes. The various social flocks try to differentiate themselves by eating similar products which they know are not available for purchase or use by a lower social class. Veblen takes the example of a woman's dress, which is so strikingly large and impractical to avoid and regard as waste (Le Bon, 1895).

In the study "Herd behavior and the quality of opinions" the connection between the quality of the views and balance features has been established by Teraji (2003). With the small degree of quality of opinions, the efficient equilibrium is unique and globally accessible in the mode. The study concluded that decisions made by a person crucially depend on the perceptions of the objects of choice. Therefore, the social environment in which decisions are made can't be separated from the way people feel about things (Teraji, 2003). The study "Herd behavior and mood: an experimental study on the forecasting of share prices" explores the effect of emotions on herd behavior propensity, such as the share price, and offers the opportunity

to focus on other subjects and to probably show herding behavior. It should be noted here that the findings of the study indicate that mood influences the herding trend. In particular, a neutral mood promotes a tendency to herd activity. Furthermore, the study indicates that herding generally leads to social convergence—a common orientation of thought or actions—not documented through over-centered coordination but through individual interactions and events that represent the understanding of the behavior of the herd. (Filiz et al., 2019).

Among the first to emphasize the importance of herding for the interpretation of economic patterns were Adam Smith (1759) and Charles Mackay (1841). The concept of herd behavior can be understood from two different perspectives: economic and psychological. The motivations underlying herd behavior are viewed in terms of the choices and decisions that are made. Geoffrey Hodgson (1993) argued from an economic point of view that, thereby, many economists have taken individual motivators and desires because "basic aspects of human personality and motivation are conceived as independent of social ties". In economics, herding occurs when subjects follow the behavior of other subjects or make economic decisions depending on other subjects' views, assessments, or actions, sometimes for good reasons. For example, financial market analysts can agree with most people because they are best able to avoid harming their credibility. Institutional investors could imitate other investors' actions because they think they can increase profits in that way. Nevertheless, many investors are misguided and irrational in copying the actions of other investors, for example, when they become supported by what is commonly thought of as a good stock mood, or when they panic at declining stock prices. Social conventions or customs also often play a role in herd actions (Spyrou, 2013).

### The Role of Herd Behavior in Emerging Markets

Theorists of behavioral finance suggest that investment decision-making is not always fair. This means that when investors base their decisions on cognitive factors in addition to stock fundamentals like herd behavior, regret aversion, and price, herd behavior is also seen as a major challenge to the stability and performance of the financial markets. The stock markets refer to the markets and exchanges where daily shares of publicly owned enterprises are purchased, sold, and issued. In a country or area, multiple stock trading sites can allow for stock trading and other securities (Levine, 1991). Studies show that herd behavior is more sensitive in emerging markets, with few experienced market players. The rules on information release and flow are restricted, leading to various responses and interactions between investors when exposed to heterogeneous information. Besides, there is evidence that herding in emerging markets is more likely to happen. For example, in gathering and evaluating information, investors may behave differently. It is more cost-effective for less experienced investors to collect and analyze information themselves. Because of information asymmetry, the creation of herding also plays an important role in heterogeneous business information (Dang & Lin, 2016).

Moreover, several longitudinal studies are related to market participants' herding behavior. Furthermore, experimental tests on various models showed that herding behavior can be explained with both knowledge and reputational models. Alevy et al. (2007) showed from field tests that experts were less likely to become information cascades than inexperienced people under certain circumstances. As a result, herd behavior has less of an impact on experienced people (Drehmann et al. 2005), Hey & Morone 2004, and Cipriani & Guarino 2005).

Due to the fact that financial analysts have made significant attempts at understanding the stock markets, the complexities of these markets have remained puzzling recently and defy

conventional models. Baruch (1960, p. 84) mentioned that the behavioral finance theory recently offers a practical and realistic interpretation of clustered market volatility as human responses to events are more important than the events themselves. In this respect, herding behavior, even if the group's activity is not backed by relevant evidence, suggests that an investor denies his own beliefs and ideals and continues to engage in group trading. In this context, investors imitate their competent colleagues either because they don't have any experience or because their investors feel that they have more valuable information than they do. Such behavior, from one investor to the next, can lead to a growing bubble, resulting in market destabilization and excessive volatility in the stock. Thus, the act of herding itself is an argument against the logic theory (Baruch, 1960). Various studies investigated the relation between herding behavior and the concepts of the stock markets due to the high volume and volatility of trade. Tan et al. (2008) discovered that excessive trade will cause herds to heat up and abnormally raise stock prices. Many authors found that agents massively trade with some stocks in the form of gangs, generating large trade volumes and helping to increase their volatility. In this regard, Litimi (2017) suggested that herding activity inhibits uncertainty in the French markets. Thus, the key reason for investors to join a group herding movement varies between sectors. The results of the research revealed that during the crisis time, herding exists on the French stock exchange, while it exists in other markets the entire time. Empirical results also provide a possible explanation for the existence of the connection between herding and market volatility. In reality, herding inhibits the average volatility of returns in all sectors. Moreover, trading volume has a favorable influence on conditional volatility in the industry and across most industries. Further, Litimi (2017) found that higher trading in individual stocks is less obvious and the average return on the sector volatility is positively influenced by turnover (Litimi, 2017). The study "Herd behavior of investments: an assessment of Indian stock markets" examined the effects of herd activity and market factors on investment decision making and the mediating effect on the perception of investment success. For the data collection process, the scientist used a formal questionnaire. The study shows that both variables—the actions of flocks and demand—have significant effects on investment decision-making. Geetha (1991) states that investment decision-making has also had a strong and significant impact on understanding the effectiveness of capital (Geetha, 1991). Keynes (1936) observed herding behavior among financial market participants. He provided two reasons for this: reputational herding and investigative herding. He believed that financial market analysts preferred to herd since they had nothing to gain with a highly individual opinion while also running the risk of a substantial credibility loss. However, they could improve their image marginally without the risk of endangering them if they were associated with the majority opinion. This means that financial market analysts who want to preserve their well-paid jobs, therefore conduct themselves rationally because they always obey the majority's view. Moreover, reputational herding and investigative herding methods have been investigated in a large number of studies. Cote and Sanders (1997) found that legitimacy issues and the basic credibility of consensus expectations benefit herd behavior, which in turn helps to deteriorate the prediction standards.

Bedke, Bizer, and Spiwoks (2009) as well as Meub et al. (2015) confirmed through experiments that concerns about reputations are a deciding factor in the development of rational herding behavior. Keynes (1936) also believed that short-term financial market investors were also interested in research herding. Many who are committed to short-term movement in the financial markets do not depend on knowledge that other

capital market operators will find just months later. They would be smarter to focus on what others think is important in the short term. As a consequence, this triggers and encourages herd behavior in the financial markets in the short term. Some studies have shown a negative connection between experience gained over years and a tendency towards herd behavior. Inexperienced analysts who differ significantly in their predictions from the consensus view are more at risk of being redundant than seasoned analysts. On the other hand, Ashiya and Doi (2001) found no evidence that the expertise of observers affected herding behavior. Some research shows that analysts who have succeeded in the past are less likely to show herding behavior. On the other hand, Bhalla (2012) did not find any evidence of independent predictions by analysts. Spiwoks, Bizer, and Hein (2008) considered how financial market analysts should coordinate their behavior. They found that a naive forecast orientation ensures that analysts stay in the herd's protective environment lastingly (Olsen, 1996; Kim and Pantzalis, 2003). Various researchers have shown that herding or herd behavior can also happen if people behave rationally and make a sincere effort to make meaningful decisions. In this situation, researchers suggested that, in general, people attempt to deduce their private decisions based on measurable decisions taken by others. All this information (a prior risk, one's private ideas, and others' personal information) is then used to optimize the likelihood that one's decision will work. Thus, this leads to herding or herd behavior. Many experimental studies have shown that information cascades can happen. These findings have been validated by a variety of experimental variations. Some people orientate themselves only towards a priori possibilities, while others orientate themselves exclusively towards the majority of previous decision-makers (Sasaki, 2005; Sumpter et al., 2012).

Devenow and Welch (1996) were the first ones to clearly distinguish rational herding from irrational herding activity on the other hand (reputational herding, investigative herding, and informational cascades). Irrational herding behavior, sometimes with a cultural context (social conventions) or because the urges are lacking power, can only be psychologically explained. In addition, Shleifer and Summers (1990) concentrated on the irrational noise of trader herding activity. They suggested that their actions are often marked by pseudo-signals, such as financial guru recommendations. In this regard, it is important to note that Bikhchandani and Sharma (2000) suggested that herding should not be equated with similar behavior. If several subjects do the same thing without taking care of or responding in some way to one another, this is known as a "false herd."

### 3. Discussion

Herding behavior has an impact on the stock and financial markets worldwide. This important phenomenon implies that investors are taking similar investing decisions to each other or blindly following the decisions of a group or following the group movement or behavior. This behavior may lead to changes in stock prices either up or down from their fundamental value, and that may in some circumstances, lead to market crashes via panic buying and panic selling. When the investor follows the herd, his or her judgment and opinion shut down as he or she automatically follows the group's movement and behavior in the stock markets. Due to herding behavior, investors follow and imitate what other investors are doing, instead of depending on their financial analysis, their vision of the status of the markets, or the factors that affect the movement of the stock prices. Herd behavior contributes to stock market surges and crashes because it forces investors to act on emotion rather than reason, noting that both herd behavior and the stock markets are motivated mainly by greed, which prevents people from using



logic and reason. In this regard, we will shed light on the major points related to the relationships between herd behavior and the stock markets.

People may follow the crowd because they think that the rest of the crowd is better informed. Herding is a key factor in generating speculative episodes. This behavior may exist in different sectors and fields, such as fashion, trends on social media, and stock and financial markets. People tend to herd as they believe that a group decision is more reliable than an individual's decision. Psychological analysis may help to understand the effect of personality, mood, and emotional characteristics on herding behavior in a herding study. This is due to the idea that people feel more comfortable if their decisions constitute group decisions. In the stock markets, traders risk the possibility of losing money despite huge sales volumes, so they keep their stock positions. In many cases, acting with the herd is better than the risk of being the sole trader who is not selling or buying in time. The changing economic climate and the cycles of economic instability often affect investors' decision-making process. This means that the economic environment of the stock markets is under possibility and probability. This means that a person might earn more or lose everything. Therefore, people feel more comfortable and safe if their situation or decision is much like others. Researches on herd behavior and the stock markets show that if a person or investor has limited or no experience, it is more likely that he or she will tend to herd or imitate other people. This means that people choose to imitate and herd rather than dig and try to look for accurate information. Furthermore, Demirer et al (2010) suggest that herd activity is more likely during extreme market fluctuations because investors will be more likely to obey the market consensus. In other words, investors tend to look for herding in case there is a change in the markets, especially when the prices of assets surpass their intrinsic or fundamental values routinely and abnormally. As seen by the recent sovereign debt and the sub-prime crisis, bubble formation appears to occur over a long period, but it definitely (usually abruptly) causes large losses to asset owners and causes financial crashes and risk contagion, as seen by the recent sovereign debt.

Herd behavior is considered one of the potential explanations for economic bubbles. On the other hand, even if the agents have this pattern of behavior, there are no clear signals about market sentiments and trends, which increase market volatility and contribute to bubble inflation. In other words, the more competitive the markets are, the more knowledge the markets receive and the less likely the bubble will form. In this regard, it is founded on the premise that market prices are exogenous to the decisions of all participants, which is only acceptable in competitive markets where participants believe their decisions do not affect the market's price. As others make money, the investors who are not participating follow the crowd because they feel their economic status will fall relative to those who are participating. This behavior causes even more of the same behavior, and bubbles begin to form causing irrational asset prices.

Traders in the financial markets have strong evidence that agents are affected by what others are doing in their decision-making processes in the markets. Herd behavior, since it compels borrowers to act on emotions instead of reason, helped to lead to stock market spikes and crashes. Both stock and herd behavior is primarily driven by greed, which prevents people from using logic and reason. Bubbles arise when the cost of a single commodity increases well above the item's real value. Examples include homes, Internet stocks, gold, or even tulip bulbs and baseball cards. Sooner or later, the high prices become unsustainable, and they fall sharply until the object is priced at or even below its true worth.

Investors follow what other investors think they should do. This is called "herd instinct," or "herding behavior." The scale of herd instinct can cause asset bubbles or crash markets by buying panic or selling panic. If herd behavior starts, the decision and the process of the opinion of an individual ends as he immediately tracks the movement and actions of the group. There have been cases of unreasonable herding by the people involved in certain markets during real market events. For example, runs on certain foreign exchange currencies when other data suggests they are unjustified, and stock market bubbles and crashes that are unrelated to stock fundamentals.

The bond crash of 1929 was the greatest economic catastrophe ever, resulting in mass unemployment and job losses across the country. The price of oil is down nearly 40 percent in five months, a fast decline in one of the world's most significant and noticeable commodities. After seeing such a crash in price, investors and analysts are eager to trot out the particular reasons for the downturn. The greatest ever occurrence is the Great Depression and the 1929 -1932 stock market accident. In the 1920s and after the Great Depression, the enormous gains and losses that might arise in the markets were rarely as severe. Whatever the reasons, people try to shift either towards the economy or towards the markets, participants are often concerned with mutual trust. Herd activity helps to increase and crash stock market conditions since it forces stockbrokers to behave emotionally rather than rationally. When customers avoid purchasing goods and paying for services, they have to budget in this case. Herding can also occur when traders see an imbalance in trade. If there is a large stock, other traders decide to join the herd or take the opposite approach. A greater number of instructions than normal can be regarded as a sign that someone knows anything.

#### 4. Conclusion

Herd behavior is a phenomenon that has an impact on the behaviors of human beings in different aspects of life. It is when people make their decisions based on others' decisions or what others are doing without relying on their analysis or point of view. Herd behavior, however, cannot be fully understood from a single perspective alone. It has economic and social psychology perspectives. Economists frequently concentrate on macro-level processes while keeping individual motivations and preferences intact, while psychologists often focus on micro-level processes while ignoring the effect of a given action on the structural level. Remarkably, for decades sociologists instead of economists, further developed the topic of herd behavior. However, economists showed a great willingness to integrate sociological frameworks into their discipline. Due to their impact on people's economic behavior, issues relating to herd behavior have caught the eye of economists and management scholars.

Through the different findings, it was evident that the impact of herd behavior was evident in the stock markets in terms of the change of stock prices either up or down, its impact on the financial crisis, and the role it plays during the creation of economic bubbles. So, when analyzing the financial and stock markets, economic analysts should consider such types of behavior because not only does the economic environment play a role in stock prices but also another factor such as herd behavior, which should be taken into account. Finally, this phenomenon is important, this behavior is highly interesting and more deep research is needed to handle this behavior in a holistic view to consider all its dimensions in the economic world, especially in stock and financial markets. Also, the impact of culture and the difference in the intensity of impact between different countries should be studied to figure out how these variables (culture, regions, countries...) have an impact on herd behavior?

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