

# Navigating Market Movements: The Role of Herd Behaviour in Indian Stocks

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## **ABSTRACT:**

When an individual elects to allocate their financial resources towards the stock market for the initial occasion or on a consistent basis, yet possesses insufficient knowledge pertaining to market analysis and investment strategies, the primary issue or inquiry that emerges is the appropriate allocation of capital. In more straightforward terms, this involves determining whether to invest in equity shares, preference shares, debentures, or to allocate resources to mutual funds, and if so, in which specific equity/preference shares, debentures, or mutual funds the investment should be made. Individuals may either engage the services of a stock broker to manage their investments on their behalf or choose to undertake the investment process independently. In both scenarios, their decision-making processes are likely to be influenced, either wholly or partially, by herd behaviour, commonly referred to as the bandwagon effect. Individuals tend to adhere to prevailing trends. When a substantial cohort of individuals engages in investment in a particular stock, there exists a propensity among others to similarly invest in that stock, often without conducting thorough independent analysis. They possess a belief that a significant collective cannot err. The bandwagon effect is an inherent phenomenon that is relatively innocuous to a certain degree; however, it can occasionally be strategically manipulated to influence market movements in a preferred direction, an action that may constitute unfair trade practices and is frequently observed within the stock market. While herd behaviour in everyday situations may be benign, it can prove detrimental when related to investment decisions.

**Keywords:** Herd Behavior, Bandwagon effect, Stock market, NSE

## **Introduction**

The presence of irrationality within the stock market has rendered investment behaviour a subject of significant interest to various stakeholders, including stock investors, brokers, portfolio managers, and academic researchers; moreover, a historical examination reveals that these behavioural irrationalities have frequently been fundamental contributors to the cyclical phenomena of market booms and busts. Given that the Indian economy remains in a phase of development, the influx of foreign investors into the Indian Stock Market has further heightened its sensitivity. The principles of Corporate Governance have facilitated the dissemination of pertinent information regarding companies to the public, thereby striving to enhance market efficiency; however, the behavioural dimensions influencing investment decisions complicate the accurate assessment of emerging market trends. Herding, recognized as one of the most extensively analysed anomalies pertaining to the behavioural aspects of investment decisions, has emerged as a distinct area of scholarly inquiry aimed at fostering a more profound comprehension of investor behaviour within the Indian Financial Markets.

The present manuscript provides a concise overview of herd behaviour, elucidates the primary determinants of herd behaviour, and examines the ramifications of herd behaviour within the context of the Indian stock market. The aims of the investigation are

1. To present a succinct overview of herd behaviour.
2. To analyse the potential factors contributing to herding phenomena.
3. To explore historical evidence of herding within the stock market.
4. To investigate the manifestations of herding specifically in the Indian stock market.

### **Herd Behaviour:**

The Efficient Market Hypothesis (EMH) posits that an investor engages in a highly informed decision-making process when allocating their capital, aiming for calculated returns on their investments based on equilibrium models such as the Capital Asset Pricing Model (CAPM), which ostensibly results in securities on the stock market being accurately priced; however, the burgeoning discipline of Behavioural Finance appears to contest the validity of the Efficient Market Hypothesis. Herd behaviour, or herding, represents one of the anomalies within Behavioural Finance that contradicts the principles of the Efficient Market Hypothesis. In the phenomenon of herding, an investor refrains from making investment decisions grounded in their own information and analytical assessments, instead opting to conform to the actions of the majority. The investor eschews personal judgment in favour of following a substantial number of individuals who are moving in the same direction, which further indicates that herding tends to occur during market extremes. This type of investment behaviour culminates in the mispricing of securities and engenders speculation within the stock market, thereby fostering an environment characterized by market inefficiency.

The phenomenon of herding behaviour is predominantly inadvertent and may stem from two principal factors, namely social influence and the prevalent notion that a collective cannot be erroneous, coupled with the apprehension of deviating from the majority, which may heighten the potential for adverse outcomes. Research indicates that in instances where the Efficient Market Hypothesis (EMH) remains intact, herding behaviour can be classified as unintentional; conversely, should the EMH be contravened, one can assert that the herding exhibited by investors is deliberate.

### **Causes of herd behaviour**

There exist numerous factors contributing to rational herd behaviour, including societal influence, the prevalent conviction that the majority cannot be erroneous, inflated self-assurance, an optimistic outlook, and a tendency to avoid losses. In addition to these factors, research has identified several other significant and critical potential explanations for herding:

#### **I. Information based herding and cascade:**

Every participant in the equity market endeavours to acquire pertinent information that is accessible to them, whether in a public or private capacity. The information that is publicly accessible to all investors may ostensibly support the assertion that the market operates efficiently, as such information is uniformly available to each investor; however, the interpretation or conclusions drawn from the data available to them may vary and be considered proprietary. Even if they disseminate this proprietary information within a collective of investors, such investment decisions are regarded as tenuous, ultimately leading them to adhere to the consensus opinion while disregarding their individual analyses of the data. For instance, in a cohort of 20 acquaintances, if two investors opt to invest in a particular stock, the subsequent investor

will observe these two precedents and subsequently formulate their decision. The likelihood of his decision to invest as opposed to refraining from doing so will invariably be elevated. Even in the absence of his investment, the fourth individual will now have three predecessors, and among these three, two have engaged in investment in that particular stock; thus, given their majority status, the probability of the fourth individual opting to invest in that specific stock is increased. This will trigger a cascading effect, and once this cascade is initiated, the private information held by each of the friends will diminish in relevance concerning the decision-making process.

## **II. Reputation based herding:**

In the recent scholarly investigations conducted by Trueman (1994), Zweibel (1995), and Grahim (1999), a novel theoretical framework regarding herding was proposed, which is termed Reputation-Based Herding, particularly in the context of analysts or fund managers. This phenomenon manifests when portfolio managers or their respective employers lack awareness of the managers' aptitude for selecting appropriate stocks for investment purposes. For instance, consider two managers, designated as A and B, who remain oblivious to their proficiency—whether they possess a high level of skill in selecting suitable stocks or demonstrate a tendency towards poor judgment. This lack of self-awareness regarding their capabilities may initiate a cascade effect of herding behaviour. Hypothetically, should these two managers encounter an identical investment opportunity, both manager A and manager B would possess distinct private information pertaining to the stock in question. The determination of their skill level, whether high or low, will only be ascertained subsequent to the execution of the investment and the revelation of returns, regardless of whether these returns are positive or negative. Manager A executes an investment decision regarding a particular stock, informed by his proprietary knowledge and expertise; subsequently, manager B formulates his choice by relying on his own capabilities and private insights, in addition to the decision rendered by manager A due to manager B's uncertainty regarding his own competencies, which leads him to avoid taking risks that could jeopardize his professional reputation, thereby exemplifying herd behaviour. In instances where multiple managers operate in a sequential manner, the decision articulated by the initial manager will consistently be taken into account, thereby engendering a herding cascade.

## **III. Compensation-based herding:**

Roll (1992) and Brennan (1993), in their respective research endeavours, established that when the remuneration or incentives of a portfolio manager or investment manager are contingent upon the relative performance of a benchmark or the achievements of comparable professionals, it may induce such a manager to exhibit herd behaviour, whereby he endeavours to align his portfolio with the benchmark in pursuit of attaining returns that are either commensurate with or exceed those of the benchmark, while unequivocally avoiding any scenario that may result in inferior returns.

Maug and Naik (1996), in their scholarly investigation, articulated the concept of a risk-averse investor, referred to as the agent, whose remuneration is contingent upon the comparative performance outcomes relative to a benchmark, which may consist of either a cohort of analogous investors or a specific index. The private information available to both the investment manager and the benchmark is characterized by its inherent imperfection. The benchmark is positioned to undertake an action initially, subsequent to which the manager will execute his action upon observing the benchmark's behaviour; however, due to the stipulation that the manager's compensation diminishes in instances of underperformance relative to the benchmark, this dynamic compels him to emulate the benchmark's actions, thereby engendering a bandwagon effect. In this context, the compensation structure is implicated as a catalyst for herd behaviour.

### Past evidences of Herding

The empirical investigations conducted predominantly emphasized statistical methodologies instead of examining a specific model that tests the herding phenomenon within financial markets; consequently, establishing a connection between the theoretical discourse on herd behaviour and the statistical evaluation of such behaviour remains challenging.

Among the most distinguished empirical investigations, the work of Lakonishok, Shleifer, and Vishny, commonly referred to as LSV (1992), represents a substantial contribution to the discipline. LSV operationalizes and quantifies herding as the collective inclination of a cohort of portfolio managers to either purchase or dispose of a stock or commodity at a particular moment, in contrast to the potential outcomes if these managers engaged in trading autonomously. While they labelled it as a metric of herding behaviour, its true function is to evaluate the correlation present within the trading behaviours of a group of traders concerning the buying or selling of a specific stock or a selection of stocks.

The premise posits that herding behaviour engenders correlated trading patterns; however, the inverse of this assertion does not necessarily hold. The metric employed by LSV was  $H(i,t) = |p(i,t) - p(t)| - AF(i,t)$  where  $B(i,t)$  [ $S(i,t)$ ] denotes the quantity of investors within this subset who purchase [liquidate] stock  $i$  during quarter  $t$ , and  $H(i,t)$  represents the herding measure for stock  $i$  in quarter  $t$ , with  $p(i,t) = B(i,t)/[B(i,t) + S(i,t)]$ , and  $p(t)$  signifies the mean of  $p(i,t)$  across all stocks  $i$  that were transacted by at least one fund manager within the cohort. The adjustment factor is delineated as  $AF(i,t) = E[|p(i,t) - p(t)|]$ , wherein the expectation is derived under the null hypothesis.  $B(i,t)$  adheres to a binomial distribution characterized by parameter  $p(t)$ .

In their empirical investigation, LSV analysed the investment behaviour of 769 tax-exempt equity funds in the United States, managed by a cohort of 341 financial managers, to assess the presence of herding phenomena. They concluded that the samples encompassed within their research did not exhibit any statistically significant herd behaviour, while elucidating that herding tendencies are more pronounced in smaller capitalization stocks, attributed to the scarcity of publicly available information, consequently rendering the decisions of financial managers more reliant on the actions of their peers.

Grinblatt, Titman, and Wermers (1995), commonly referred to as GTW (1995), employed the LSV model to investigate the herding behaviour among fund managers. Their analysis encompassed 274 mutual funds spanning the period from 1974 to 1984, utilizing data concerning portfolio adjustments to scrutinize herding behaviour within the fund management sphere. By applying the LSV methodology to measure herding tendencies, they discovered minimal yet economically significant evidence of herding behaviour present within their sampled funds.

Although the studies conducted by LSV and GTW identified certain manifestations of herd behaviour, they excluded the possibility of unintentional herding and found no evidence to support the existence of intentional herding within their research.

### Evidences of Herding in Indian Stock Markets

The stock market collapse of 2008, recognized as one of the most significant market downturns in the annals of Indian economic history, was deemed to be influenced by the irrational behaviours exhibited by investors, with herding behaviour identified as one of the primary contributors to the decline of the markets.

Prosad, J. M., Kapoor, S., & Sengupta, J. (2012) conducted a study aimed at investigating the presence of herding behaviour within the market as a whole, employing the methodology established by Christie and

Huang (1995), wherein they implemented a regression model of Cumulative Standardized Squared Deviation (CSSD) to assess the impact of market stress on the dispersion of individual returns.

$$CSSD_t = \alpha + \beta_{LD} \Delta L_t + \beta_{UD} \Delta U_t + \epsilon_t$$

The researchers amassed data pertaining to NIFTY 50, which encapsulates 22 distinct sectors of the Indian economy, from the National Stock Exchange (NSE)—recognized as one of the most liquid stock exchanges globally—covering a temporal span from 2006 to 2011, thereby constituting a dataset encompassing five years. Their findings indicated an absence of herd behaviour within the Indian Stock Market as a comprehensive entity. A subsequent investigation was undertaken by Lao and Singh (2011), wherein they focused on the top 300 corporations listed on the Bombay Stock Exchange (BSE) and gathered data over a decade, spanning from 1999 to 2009. They employed the Cross-Sectional Standard Deviation, which quantifies the average aggregate deviation between the anticipated return of individual securities and the overall market return. In their analysis, they concluded that herding behaviour was significantly more pronounced under extreme market conditions, specifically during Bullish and Bearish market phases.

Subsequently, this conclusion was further corroborated by the research undertaken by Prosad, J. M., Kapoor, S., & Sengupta, J. (2012), in which they examined the distinct bull and bear phases of the market and discovered that the herding behaviour exhibited a higher magnitude during the Bull phase.

### Conclusion and Suggestions

Research has been undertaken concerning both the National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE), which are the most prominent stock exchanges in India. The findings indicate that there is an absence of herding behaviour on a macro level; however, a statistically significant degree of herding, particularly of a higher magnitude, is observable under extreme market conditions, notably during bullish phases. It is evident that the domain of behavioural finance remains relatively nascent and is in its developmental stages, with empirical investigations failing to establish a direct correlation between theoretical frameworks and statistical evidence for the quantification of herding behaviour in the stock market. Further comprehensive studies can be conducted on both the NSE and BSE to enhance the understanding of herding phenomena by employing diverse methodologies for assessing herd behaviour.

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