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Investigating Investors' Herd Behavior

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Herd behavior is a phenomenon in which a group of investors mimic the behavior of the crowd, without considering the rationality of the situation. Dependent decision making in the stock markets is not a fiction. Herd behavior has been considered as the one of the most influential cognitive bias that leads to the creation of bubbles. Previous research findings have indicated the existence of herd behavior in the participants of the market. The purpose the research paper is to investigate the existence of herd behavior among the investors. To explain such behavior, a survey was conducted in the city of Lucknow, India with the help of five-point Likert scale structured questionnaire analyzed with the use of relevant statistical tools.

The survey evidence indicates that herd behavior exists in the investors of financial markets. Extensive literature review and analysis shows that investors exhibit herd behavior due to regret aversion, lack of information, and trust on sources of information, emotions considerations, psychological or social conventions.

Keywords: Herd Behavior, Herding, Investor, Financial markets, Psychology, Emotions

Introduction

Herding is a very common phenomenon of behavioral finance. In the financial markets, herding exists when investors trade in the similar direction. Herding makes the investors ignore their own private information and follow others. It is because they believe the others have superior information. Bartels (1988) explained psychology behind herding; he said that people follow the herd as they believe a large group of people cannot be wrong. The roots of herding are from the phenomena of conformity that makes the people feel secure that they are not against the crowd. Such behavior may be due to psychological reasons or rational considerations. Rational considerations may arise due to lack of information or having a belief that others are better informed or capable of understanding the information. Poshakwale and Mandal (2014) stated that under circumstances of lack of information, investors imitate the crowd which serves as a viscous circle of prey for investors that leads to information cascades or herd behavior

Hirshleifer and Teoh (2003) discussed about two different strands of herding exists in theoretical and empirical research: rational and irrational herding in the financial markets. In the models of irrational herding, investors follow the herd due to emotional or cognitive biases. Qin (2012) identified that investor observe the buy and sell decisions of other investors and then invest. In case of rational herding models, the investor follows the actions of other investors. It is because investors' actions reveal the private information to the other investors. Many economists and researchers have stated that there are two types of herding, Spurious and intentional herding. Spurious herding is when investors face similar fundamental information set in a scenario and take similar decisions whereas; intentional herding is where investors follow each other with intent (Bikhchandani & Sharma, 2000; Spyrou, 2013).

Review of Literature

Why people herd?

Pompian (2006) stated that regret aversion causes "herding behavior" as majorly investors buy stocks in view of noticeable mass consensus that further leads to future regret. The Internet stock bubble is an excellent example of massive herd that lead to investors to the wrong direction. Investors are bewildered by their own hesitation; they step back and follow the herd.

Another important aspect of investor's life is the trust heuristic. It is an unconventional tool used by the investors who engage in irrational behavior.

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Individuals indulge in investment with their family, friends, social or religious groups, and members of the community as they firmly believe these people can be trusted. Individuals even follow their leaders and indulge in herding behavior whenever they are undecided about what financial stock or asset to buy or sell. Therefore, herding leads to market inefficiencies called as price bubbles or price cascades. (Altman, 2014).

Financial literacy plays an important role in enhancing the capacity of investors to avoid decision making errors. Low financial literacy leads to lack of confidence among investors. Herding occurs under the umbrella of bounded rationality and uncertainty. When the investors are unsure about the movement of asset prices and trust the knowledge of the crowd or the leaders of the crowd. Herding and price cascades can be mitigated when investors have better information about the assets purchased, true risk, fundamental value of the asset. A significant research of Santacruz (2009) explained about the herd psychology where investors result in buying risky financial assets during bullish cycles and selling in market downturns leading to financial losses.

Emotions play an inevitable role in influencing investor bias. When an investor ignores sentiment based risk which means a decision maker acts on emotional considerations. Nofsinger (2002) discussed a conceptual model that analyzed the effects of social moods on herding behavior in the stock markets. He emphasized that social moods and interactions are equally as significant as economic fundamentals. Duflo and Saez (2002) concluded that many decisions in the group are correlated. Investors may behave irrationally and the herd behavior may arise due to consequences of psychological or social conventions. Many economists have explained that herd behavior may lead to destabilization of prices and bubble like episodes in the financial markets. Herding is rational or irrational? It is an ongoing debate among economists. Some economists have argued that in certain circumstances herding is a rational choice. Prosad, Kapoor and Sengupta (2015) examined the presence of behavioral biases in the region of Delhi-NCR with the structured questionnaire tool and further examined the role of demographics and investor sophistication that influences the biases. The results indicated that investors are prone to herding because they feel that discussing their investment decisions reduces the chances of being unsuccessful and improves their confidence. It further indicated that herding affects the highest and lowest experience class the most. Even intraday traders herd because they rely on the advice of their peers.

Herding in Financial Markets

Due to uncertainty in the financial markets, investors behave quite odd where they copy each other; this trait is known as herding. The herd behavior is programmed as a rule of thumb in our everyday life. Investors under the conditions of uncertainties follow the decisions of confident looking people. Hence, investors neglect fundamental analysis instead adjusts their investments according to what others are doing (Richards, 2014). Many researchers of different countries; developed and emerging countries have studied the existence of herding as a phenomenon with empirical and experimental research. Poshakwale and Mandal (2014) examined the existence of herd behavior in the emerging stock market of India using the data of S&P CNX Nifty 50 over 1997–2012. It was found that due to limited access to information that results in larger information asymmetry, herd behavior is higher in the emerging markets. Another major finding was that maximum herding exists in the bear markets.

Herding phenomenon has been researched in different aspects of financial markets. Wang, Tang & Chen (2017) analyzed the information asymmetry issues within the IPO market of Taiwan. Before listing, the Taiwan IPO market for requires subscription demand information. The information demand creates an opportunity for herding in the IPO market. Various models indicate that investors' trading decisions are dependent upon subscription demand information. The responses to high and low subscription demand are quite asymmetric. Investors pursue IPOs in case of high subscription demand. Global financial crisis of 2008 was triggered by the declaration of losses suffered by many financial institutions and investors.

Kabir (2017) examined the herding behavior of investors during the global financial crisis of 2008 in the US financial industry, especially commercial banks, investment and insurance firms, savings and financial institutions. Investors' herd behavior has been researched in different spheres of financial industry. Apart from stock markets, Bernales et al. (2016) explored the unexplored investor's herd behavior in the options markets. They examined the equity option contracts traded in the US during 1996 and 2012 and it was found that option investors herd during periods of high market volatility risk.

Demirer et al. (2010) used the linear model proposed by Christie and Huang (1995) to measure the presence of herding in the stock market of Taiwan. The data used for the study has the daily returns of 689 Taiwanese stocks classified in 18 sectors traded on the stock exchange of Taiwan obtained from Taiwan Stock Exchange Corporation (TSEC). Though, the Taiwanese stock market is dominated by domestic investors, the results indicate no presence of herding in different sectors except the electronics sectors.

Garg and Gulati (2013) investigated the existence of herding in the Indian stock market with the help of the two models: CSSD introduced by Christie and Huang (1995) and the other CSAD given by Chang et al. (1999). The study focused to study the existence of herding in the Indian stock market during extreme price movements from the April 2000 to April 2013. The results suggested the absence of herding in the Indian stock market even during the extremely high and low trading volume days. The prominent reasons for the absence of herding may be are presence of foreign institutional investors, liberalization of markets, and increase in the trading hour, pre trading hour, derivatives products and etc. BenMabrouk (2018) investigated the herding behavior around the stock market and crude oil market. It further studies the cross herding behavior between the two markets. It indicated that the investors' sentiment mitigates the herding around the stock market and boosts that around the crude oil market. Hanafi and Abaoub (2016) examined the existence of herding behavior in the Tunisian stock market before and during the political and social crisis of 2011. By studying the relationship between volume and price, it was found the herding is present only during the crisis period in the Tunisian financial market.

Objectives of the study and the research gap

The purpose of the paper is to investigate the investor's herd behavior in the stock markets. Extensive review of literature suggests that Indian individual investors are unsophisticated and have limited access to information. Therefore, during times of volatility and uncertainty, investors are unsure, hence engage in herd mentality. The existence of herd behavior has been studied majorly by researchers with the help of two models: CSSD introduced by Christie and Huang (1995) and the other CSAD given by Chang et al. (2000). There is a research gap in investigating investor's herd behavior with the help of survey instrument that identifies the existence as well as the qualitative factors that lead to herd mentality among investors.

Data and Methodology

Primary research has been conducted through a survey instrument, a structured questionnaire. As the objective of the paper indicates, a certain segment of the population is applicable for the research. Therefore, a 'segment of population' is relevant for the research. (Sahi & Arora, 2012), (Prosad et al. 2015). The target respondents must belong to the investing class, i.e. individuals having personal savings and have the capacity to invest in the stock markets. To narrow down the population of investors, previous researcher's recommendations were considered for the sample composition as the official list of investors is not accessible. Hence, the sampling method has been chosen on the basis of judgment and snowball sampling (Sahi & Arora, 2012), (Prosad et al. 2015),

The study surveyed 310 active investors who regularly trade in equity, have a trading account and take their own decisions. The respondents were actively involved in trading and invested in equity. Out of all, 243 investors have properly filled questionnaire and responded positively. The respondents have been segregated on the basis of their demographic profile and trading experience. The major factors of demographics are like age, gender, education, occupation, annual income. (Barber & Odean, 2001, Hon-snir et al., 2012). The demographic profile of investors as shown in Table no. 1 indicates that 43% investors belong to the age group of 45-55, and 27% investors belong to the age group of 35-45. The data was collected from 69% males and 31% females. In India, there is a large difference in the number of female and male investors. The data collected indicates that 51% of investors have more than 2 years of experience and 49% have less than two years of experience.

Survey instrument

Descriptive research was used to investigate the existence of herd behavior in the investors of Lucknow with the help of 5 point Likert scale questionnaire. The questionnaire was divided into two parts, Part A and Part B. Part A comprised of the demographic details such as age, income, occupation, trading experience, and education. Part B contains 10 items that are scenario based questions that make the respondents relate to the hypothetical situations of the stock market. The questions range from 1 (strongly disagree) to 5 (strongly agree). Herd behavior exists when investors imitate the actions of the crowd. The 10 items focused to identify the existence of herd behavior and their determinants. The respondents were asked about

Table No. 1 : Demographic profile of investors

		Count	Column N %
Age	25-35	36	15%
	35-45	66	27%
	45-55	105	43%
	55-65	36	15%
Level of education	Undergraduate	2	1%
	Graduate	123	51%
	Post Graduation	105	43%
	Doctorate	13	5%
Level of income	300-500 Thousand	26	11%
	500-700 Thousand	54	22%
	700-900 Thousand	94	39%
	900 Thousand and above	69	28%
Gender	Male	167	69%
	Female	76	31%
Occupation	Government (excluding banks)	54	22%
	Private (excluding bank)	71	29%
	Bank (Public and private)	48	20%
	Financial experts/CA	26	11%
	Self Employed	44	18%
Trading Experience	more than 2 years of experience	125	51%
	less than 2 years of experience	118	49%

that if they discuss their investment decisions with their peers and colleagues to mitigate the pressure of being unsuccessful. Another question enquired that if the peer, friends, colleagues and neighbors are important source of information. The extensive review of literature indicated investors chase the returns of the market and regret if they do not follow the general trend. Investors who exhibit herd bias buy stocks if maximum orders are placed in the beginning of the trading sessions. Respondents were asked that if their purchased stock is trading at a price lower than the purchase price, would they discuss with their friends, family and colleagues and follow their advice.

Results

To test the reliability of the questionnaire, Cronbach's Alpha was applied. Results of the test reveal that reliability of the items is greater than the benchmark of value i.e. 0.70. The table no. 2 shows the results of the reliability statistics.

Table no. 2

Reliability Statistics	
Cronbach's Alpha	N of Items
.714	10

Ranking of the mean values

It was used to identify which item had the highest importance that indicates herd behavior in the investors. Table No. 3 depicts the mean value of the 10 items that shows the highest mean of 4.04. The respondents exhibit herd bias as they feel disappointed if they take any investment decision which is contrary to the existing trend. The second most important item indicated that investors follow the herd if maximum buy orders have been placed at the initial trading session.

Conclusions and implications

Liberalization in Indian economy has increased the investing activities. New investors are entering the equity markets with intent to earn higher returns. During review, it was found that the investors feel disappointed if they feel they have taken an investment decision which is opposite to the crowd. It can be inferred that investors lack experience and confidence. Investors are prone to herding because they feel that discussing their investment decisions reduces the chances of being unsuccessful and improves their confidence. Due to limited access to information that results in larger information

Table No. 3

Descriptive Statistics			
	N	Mean	Std. Deviation
(B1) Feel disappointed if go against the crowd	243	4.04	.584
(B 2) Prefer to buy if many buy orders are placed at the initial trading session.	243	3.99	.498
(B3) Increase investments if the past trading volume is higher than usual.	243	3.95	.558
(B4) Discuss investment with peers to avoid regret..	243	3.91	.695
(B5) Peers and colleagues are an important source of information	243	3.87	.674
(B6) Other sources (brokers and analyst) of information are extremely important	243	3.83	.568
(B7) Disappointment reduces a little if others experience the same loss.	243	3.77	.595
(B8) Like to know what fellows are doing if stock is trading at a lower purchase price	243	3.72	.700
(B9) Chase returns in rising markets	243	3.71	.636
(B10) Have trust on sources of information	243	3.38	.566

asymmetry, herd behavior is higher in the emerging markets. Another major finding was that maximum herding exists in the bear markets.

The survey indicates the existence of herding among the investors of Lucknow. The results of the survey show that investors are emotional and are driven by psychological considerations due to which they follow the crowd.

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