A Review of the Factors Contributing to Herding Among Investors in Share Market- An Age Variation Analysis

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Abstract: *Behavioural finance has identified many causes of irrational behaviour by the investors in share market. These causes have been grouped as heuristics and biases. Herd behaviour is also one among such investment biases. There are many factors which affect herding among the share investors. From the review of literatures a list of such factors are prepared and opinions of the investors are taken with the help of a structured questionnaire. Based on the opinions an attempt has been made in the present study to identify those factors which contributes highly to the herd behaviour manifestation. Effect of age variation on herding in share market has also been analysed in the study.*
Keywords: *Behavioural Finance, Herd Behaviour, Share Market.*

I.   Introduction

Investment made by the mass people is very crucial from the point of view of overall development of an economy. Investment in shares or share market is also very important from the point of view of development of corporate sector. This sector is always in need of money and the money lies with the public. Share market is one such option through which the surplus money with the general public could flow to the corporate sector. Thus the growth of the share investment culture is a good sign from the development of economy. But the investors will be interested in investment in shares only when they would be able to get their desired returns out of the investments. As such while making decisions regarding share investment the investors (public) should be very careful, cautious and at the most they should try to be rational, i.e. not to be influenced by emotions. But many researches have found irrational behaviour on the part of the investors. The field of behavioural finance has identified many investment behaviour biases which back the irrational behaviour. One such bias identified by the field of behavioural finance is "Herd Behaviour". So in this paper an attempt has been made to identify the factors which influences the herd behaviour by the share investors and followed by a comparison of herding tendency between different age groups.

II.   Background of the Study

The field of behavioural finance aims at describing the irrational attitudes of investors. Many biases which make the investment decision inefficient have been found from different researches. Herd behaviour or herding is also one such human tendency which have been found as the cause of inefficient decision making. Herd means a group and similarly herd behaviour may also be termed as group behaviour. When the behaviour of a group of persons aligns in the same direction it is called herding."(Kameda et al, 2014). In financial market or in share investment it implies to follow a group and acting according to the behaviour of the group. Bikhchandani and Sharma, (2000) said "Investors are considered to be part of a herd if they are conscious of and influenced by the actions of others". When an investor becomes the prey of herding, he just try to overlook his own information, although might be correct, and blindly go with the group decision, although the group might be wrong. As such if the group decision proves wrong subsequently, then also he tries to satisfy himself on the ground that whole group was wrong and not that only he has made a wrong decision. So such kind of emotion or bias as said by behavioural finance is definitely not good both from the point of view of investors and also from the point of view of overall share market, as it may cause bubbles and crashes at times unnecessarily. Le and Truong (2014) has stressed on daily study of herd behaviour in the stock market to curb bubbles. Bhaduri & Mahapatra (2012) concluded in their study that in the years of major crashes herding among the market participants was very significant.

III. Review of Literature

Some of the literatures related to herd behaviour study are mentioned below.

Caporale et al (2008) found significant herding behaviour among investors during both stock market crisis period and after the crisis. They also found that herding is affected by the time horizon. In case of short term investment decisions herding is less as compared to long term decisions. In the periods of rising prices also they found more herding.

Khan (2013) applied two different models to find out herd behaviour in Lahore stock market and results in both the models did not show any herding and concluded as there exists no herd formation in the Pakistan's market. However, he added that the results should be interpreted with caution as it analyzes herd behavior by using only two models and there are other tests of herd behavior that may also be considered for herd tests.

Douagi et al (2013) tried to investigate the presence of herding behaviour of market participants in the TSE using daily data before and after the Tunisian revolution. They found that both before and after the revolution herding behaviour was not a main factor in determining asset returns during periods of extreme market movements. However, they found evidence of a weak herding behaviour after the Tunisian revolution. They said it might be due to the instability of the socio-political situation and the lack of visibility on the evolution of the national economy that characterize the period after the Tunisian revolution.

Botsvadze. I. (2013) while explaining psychology of herd behaviour said that herding occurs when one's decision did not represent the sufficient statistics of his information. To put in other words what people are doing reflects some information and that information dominates the information of one particular investor, and as a result he just tend to ignore his own information and thus automatically goes into herding. In an examination of herding levels among firms with different investment objectives he concluded that herding is more among growth-oriented firms than income- oriented funds. According to him this could be due to the reason that growth oriented firms hold a larger proportion of growth stocks, which are mostly of small caps for which public information is harder to obtain and analyze and, as a result, there was greater scope for herding behavior.

Ouarda et al. (2013) found presence of herding in both bullish and bearish markets. The study also revealed that the herding behavior is influenced by the financial crisis especially in the sectors of the finance and of the technology which is very sensitive to the crisis in terms of interdependence and of contagion effect.

Sarpong and Sibanda(2014) found that the mutual fund investors also engage themselves in herding just like equity investors and they found that the funds on which herding took place underperform the other funds on which no herding effect exists and they also commented about a relationship between the herding funds and contrary funds. They found that mutual fund investors do not respond to mutual fund performance by investing more in recently performing funds..This further means that the behaviour of these contrarian investors helps stabilize the stock market during turbulent periods.

Narasimhan and Kim (2006) found that the market reaction to analysts' recommendation revision was stronger when the revised recommendations move away from the consensus than when they moved towards the consensus. They also found that analysts are more reluctant to stand out from the crowd when they convey negative information and analysts from more reputed brokerages are more likely to herd than analysts from less reputed brokerages.

Scope of the Study

The present has been conducted to study the herd behaviour among share investors. The study is based on a sample consists of 40 respondents who have experience of investment in shares. The study is confined only to Namrup and Duliajan town of Dibrugarh district of Assam.

Statement of the Problem

It has been found that herd behaviour in the share market has got the attention of many researchers. They have found many inefficient outcomes of herd behaviour. However the study about the factors which influences the herd behaviour is not found as many. Therefore it was decided to study the factors affecting herd behaviour among share investors and also the effect of age on herding tendency in share investment. The study would help to explain the situations and identify the elements which compel the investors to herd and thereby would help the investors to identify their limitations and weak points on which they can improve upon in future.

Objective of the Study

The objective considered in the present study is to identify the factors which influence the herd behaviour the most in respect to investment decisions regarding shares. The study also aims at finding out if there exists any effect of age factor on degree of herding in regard to investment in shares.

Methodology of the Study

Both primary and secondary are used in the present study. Secondary data includes different journals, books and web resources which are primarily used to develop the theoretical foundation to the study .Primary data are collected through a questionnaire presented to the share investors, in which they are requested to give their opinions on a five point scale from Strongly Agree to Strongly Disagree on all the items relating to the latent variable.. For developing scales (Items) pertaining to the latent variables identified a large no of literatures are reviewed (e.g. Brunnermeier, 2001; Decamps and Lovo 2006; Zhao, 2010; Cipriani & Guarino. 2010; Ghalandari and Ghahremanpour, 2013; Sindhu et al, 2014; Ionescu 2012; Lutje and Menkhoff, 2003; etc.). A list of 20 items [Exhibit-1] has been developed to measure the latent variable- Herd Behaviour. Items of the questionnaire are finalized after the pilot survey followed by expert opinions. Data arecollected from 40 share investors in which snowball sampling method is used as it has been difficult to identify the share investors directly.

EXHIBIT-1
Description of items relating to Herd Behaviour

Item No	Description of Item
01	Related use of public information regarding stocks.
02	Related to Imitation of behaviour of other participants
03	Related to going with the decision of majority investors.
04	Related to interaction with co investors
05	Related to following financial News papers for information and expert comments
06	Related to following expert comments
07	Related to feeling of loss by self but gains by friends from investment
08	Related to feeling of loss suffered by co-investors too from investment
09	Related to confidence on own analysis about stocks
10	Related to competing with co- investors.
11	Related to divergence from own analysis in case of loss.
12	Related to consultation with others in future in case of past loss.
13	Related to effect of brokers' advices
14	Related to use of own investment knowledge and experiences.
15	Related to use of own analysis in sale decisions
16	Related to sticking to own decision even if it does not match with expert advice.
17	Related to confidence in own predictions about future share price movements.
18	Related to following friends in share investment decisions
19	Related to following relatives in share investment decisions
20	Related to blindly following others due to lack of idea about share investment.

Source: Questionnaire

Analysis & Interpretation

The data collected through are analysed with the help of statistical software viz. SPSS. The results of the analysis and interpretation of data is presented in the following sections:

Reliability of Scale

The reliability of the scales used in the present study has been measured with the help of Cronbach's alpha. Cronbach's alpha. is the most commonly used test of reliability of scale specially if the questionnaire includes multiple Likert questions.[1] The Cronbach's alpha coefficient of the 20 items [See EXHIBIT-1] relating to degree of herd behaviour in respect to share investment was found to be 0.856[EXHIBIT-2] As the value of the Cronbach's alpha coefficient of the scale has been more than 0.70, the scale used in this study is considered reliable and internally consistent (DeVellis 1991; Nunnally & Bernstein, 1994; DeVon et al. 2007).

EXHIBIT-2
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.856	.860	20

Source: Compiled from survey data

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[1] Cronbach's Alpha (α) using SPSS Statistics. Retrieved from https://statistics.laerd.com/spss-tutorials/cronbachs-alpha-using-spss-statistics.php .

Analysis of Intensity of Influence of Individual Scale Items in Herd Behaviour

Mean and Standard deviation are calculated to find out the degree of influence of the individual items in herd behaviour. The descriptive statistics for individual scale items and their comparative intensity of influence in respect to investment in shares are presented in the following table in descending order.

EXHIBIT-3
Descriptive Statistics for Individual Scale Items

Item no	Scale Items	N	Mean	Std. Deviation
Item no 01	I usually consider public information (news) when trading stocks.	40	.4500	1.03651
Item no 05	I usually follow the stock market through financial news papers every week.	40	.4000	1.03280
Item no 12	When I face a loss in share market, I would like to consult others in future decisions.	40	.3250	1.18511
Item no 09	I always use my own information and analysis when trading in stocks.	40	.3250	1.18511
Item no 03	I often consider the information that majority of investors focus on when trading on the stock market.	40	.3250	1.16327
Item no 07	When I suffer a loss, but my friends has made a gain, I feel much pain	40	.3000	1.06699
Item no 06	I usually make the investment decision on the comments given by experts.	40	.3000	1.09075
Item no 04	My decision on share investment is often taken on the basis of interaction with my co-investors.	40	.2750	1.03744
Item no 08	It does not feel much painful when a loss is suffered by my co-investors too along with me.	40	.2500	1.00639
Item no 11	When I face a loss in share market, I stick to my own analysis in future too.	40	.1750	1.08338
Item no 10	I always want to be at the top among my co-investors.	40	.1750	1.12973
Item no 17	I believe my own predictions about future share prices to be better than other predictions.	40	.1750	1.15220
Item no 02	I often imitate decisions of others when making own investment decisions.	40	.1500	1.29199
Item no 14	My investment in stocks is largely based on investment knowledge, and experiences.	40	.1000	1.25678
Item no 16	I would invest in a stock even if my own valuation of the stock is different from that made by a well known expert.	40	.0250	1.12061
Item no 19	I would invest in the stock market as I relatives are investing	40	-.1000	1.27702
Item no 18	I would invest in the stock market as my friends are investing	40	-.1250	1.13652
Item no 20	I Blindly follow others in stock selection as I don't have much idea of share investment	40	-.1250	1.39940
Item no 13	I usually follow the advices given by I broker regarding selection of stocks.	40	-.1750	1.10680
Item no 15	My decision to sell greatly relies on my personal feelings	40	-.1750	1.10680

Source: Compiled from survey data

It is clear from the EXHIBIT-3 that-

The item no 01 i.e. "I usually consider public information (news) when trading stocks"[mean score of 0.4500, std. dev. of 1.03651] contributed the highest in herd behaviour manifestation, followed by item no 05 i.e. "I usually follow the stock market through financial news papers every week"[mean score of 0.4000, std. dev. of 1.03280] as second most influencing factor and item no 12 i.e. "When I face a loss in share market, I would like to consult others in future decisions"[mean score of 0.3250, std. dev. of 1.18511] has been ranked as the third most influencing factor. Similarly item no 15 & Item no 13 i.e. "My decision to sell greatly relies on my personal feelings" & "I usually follow the advices given by I broker regarding selection of stocks""[both having mean score of -0.1750, std. dev.1.10680] contributed the least in herd behaviour manifestation followed by item no 20 & item no 18 i.e. "I Blindly follow others in stock selection as I don't have much idea of share investment" & " I would invest in the stock market as my friends are investing" [both with mean score of -0.1250, std. dev. of 1.39940 &1.13652 respectively] and the item no 19, i.e. "I would invest in the stock market as I relatives are investing" [mean score of --0.1000, std. dev. of 1.27702].

Thus it has been found that following the use of information which is publicly available to all regarding investment in shares contributed to the degree of herding the highest i.e. if the interpretation of such public information are same for all then it would result into herding in the market. Similarly the sale decisions are not influenced by others, rather they are based on personal feelings and the advices given by brokers contributed the least in to the degree of herding.

Analysis of Differences in the scores relating to Herd Behaviour because of the variation in Age
EXHIBIT-4
Analysis Based on Age Variation

Age Group	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
20-30 years	4	.1750	.28431	.14216	-.2774	.6274	.00	.60
31-40 years	3	.1333	.51072	.29486	-1.1354	1.4020	-.45	.50
41-50 years	11	.1136	.28292	.08530	-.0764	.3037	-.35	.55
Above 50 years	22	.1705	.32281	.06882	.0273	.3136	-.80	.65
Total	40	.1525	.31131	.04922	.0529	.2521	-.80	.65

Source: Compiled from survey data

It has been seen from the EXHIBIT-4 that -

The degree of herd behaviour is affected by age variation as there are differences in means where (20-30) years age group is having the highest mean of 0.1750 with lower limit of mean being -0.2774 and upper limit of 0.6274 and (41-50) years age group is having the lowest mean of 0.1136 with lower limit of mean being -0.0764 and upper limit of 0.3037. It implies that degree of herd behaviour is highest in 20-30 years age group and least in 41-50 years age group.

EXHIBIT-5
Analysis of Variance (ANOVA) for Age Factor

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.027	3	.009	.086	.967
Within Groups	3.753	36	.104		
Total	3.780	39			

Source: Compiled from survey data

One Way ANOVA has been done to test whether the means are statistically different or not across different age groups. And the sig. value for "Degree of Herd Behaviour" is found to be more than 0.05, being 0.967. So we can conclude that there is no statistically significant difference in the degree of herd behaviour across different age groups and that the differences in means are likely due to sampling fluctuations.

IV. Conclusion

The study found that the intensity of influence of different factors related to herd behaviour is also not same and the herd behaviour among the investors is contributed mainly by the factor of using public information regarding share investment. Most of the investors opined that they base their decision on publicly available information and in such a case if all the investors interpret the information in the same way then result will be seen as herd behaviour. Similarly the investors make the sale decisions on the basis of their own feelings without consulting others and most of the investors do not follow broker advices. So these factors do not give rise to herd behaviour in the market in respect to share investment. Another interesting finding was that although there is seen difference in degree of herding across different age groups but those differences in the degree are not statistically significant.

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