Association of Herding Bias with Age and Experience of Investors a Study in Kanpur

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ABSTRACT

An investor would be exhibiting Herding behaviour when he or she relies more on information validated by a crowd, rather than on his own judgment, owing to popular perception that the crowd cannot be wrong. If investors are heavily influenced by other investors, analysts and other people, the ability to come up with their own analysis and judgments get hampered. The investors follow others rushing to buy (or rushing to sell) housing, property, shares or other investments. But simply going with the herd is not likely to be a well-thought through investment strategy. And the followers can end up paying the price. This paper provides a comprehensive study of herding behaviour and association of herding behaviour with age and experience of investors in stock market.

Key words: Herd Behaviour, Age, Experience, Investor

I. INTRODUCTION

When sheep or other animals are in a herd, they move together at the same time. Often one or two leaders start, then momentum builds as more and more join until a large group are all heading in the same direction. A similar idea holds true when investors follow the herd. Individuals are known to be influenced by others in their decision making. When deciding which restaurant to make reservations at or which school to attend people frequently imitate the actions of their predecessors. Restaurants with a greater number of guests or schools with more students tend to appear more appealing to the observer. This is generally referred to as herd behaviour. The same reasoning can be applicable to the financial markets. Investors frequently follow the direction of the market or the advice of financial gurus. Understanding the behaviour of investors in financial markets is essential.

Herd investing is said to have contributed to many dramatic movements in markets over hundreds of years. Among the most famous examples are the Dutch tulip bulb mania of 1630s, the Japanese asset bubble of the late 1980s, the "dot-com" boom in the late 1990s and the housing market dynamics that contributed the global financial crisis from 2007 onwards.

Herding in financial markets has been typically described as a behavioural tendency for an investor to follow the actions of others. Practitioners are interested in whether herding exists, because the reliance on collective information rather than private information may cause prices to deviate from fundamental value and present profitable trading opportunities. Herding has also attracted the attention of academic researchers, because the associated behavioural effects on stock price movements may affect their risk and return characteristics and thus have implications for asset pricing models.

II. MOTIVATION AND LITERATURE SURVEY

Investment behaviours are differing from individual to individual based on the acceptance of return and risk and psychological and behavioural and demographic factors. Motivation for this study is to find out that is there any relation between age and experience of investors and their investment decision making. In this paper i have tried to find out that how herd behaviour is associated with age and experience of investors.

The existence of investor herds is one frequently used explanation for the volatility of stock returns (Christie and Huang, 1995, p 31). Investors are considered to be part of a herd if they are conscious of and influenced by the actions of others' (Bikhchandani and Sharma, 2001, p 280).Herding in financial markets can be defined as mutual imitation leading to a convergence of action (Hirshleifer and Teoh, 2003). This is the most common mistake where investors tend to follow the investment decisions taken by the majority. That is why, in financial markets, when the best time to buy or sell is at hand, even the person who thinks he should take action experiences a strong psychological pressure refraining him to do so. The main reason for this is pressure from or influence by peers. The Reliance Power IPO, 2008 is an example of an instance where many investors subscribed without having full information on the issue. Investors apply to "herd behaviour" because they are concerned of what others think of their investment decisions (Scharfstein and Stein, 2000).

Private investors tend to be influenced by recommendations of popular analysts. Welch (2000) in his study found out analysts could be exhibiting Herding behaviour too. It was not confirmed due to lack of micro level data. Whenever and analyst revised his recommendations, it had a positive

correlation with the next two analyst's revisions. The revision was found to be heavily influenced by the prevailing market consensus, and to recent information updates (Welch, 2000).Economou, Kostakis and Philippas (2010) examined herd behaviour in extreme market conditions using daily data from the Greek, Italian, Portuguese and Spanish stock markets for the years 1998- 2008 i.e. the existence of asymmetric Herding behavior associated with market returns, trading volume, and return volatility. Along with this, they also investigated the presence of herd behaviour during the global financial crisis of 2008. The results of the study showed that Herding is found to be stronger during periods of rising markets in these stock markets. Herding is present in the Portuguese stock market during periods of down returns and there is no evidence of Herding in the Spanish stock market. Finally, it is said that there is evidence of Herding during the global financial crisis of 2008 only for the Portuguese stock market and evidence of anti-Herding for the Spanish and the Italian stock markets. Investor behaviour seems to have been rational for the Greek stock market during the global financial crisis.

III. RESEARCH METHODOLOGY

Research Design is Descriptive in this paper: The sample profile was created based on two judgment criteria: age of the respondent and years of investment experience in the stock market. After an analysis of the sample, the following groups were found to be optimal:

(a) Experienced: Investors aged above 30, with at least 7 years of investing background
(b) Young: Investors aged 30 or below, with less than 7 years of investing background

The valid number of responses collected by the questionnaire survey was 60. When the judgment criteria were applied, the sample was trimmed down to 51 primarily owing to few inexperienced respondents aged above 30. In total, there were 23 young investors and 28 experienced investors. In order to keep the sample profile even between the two groups, 5 incomplete observations, where answers to more than 6 questions were missing, were filtered and eliminated from the experienced investor sub-sample to reach the final sample profile of 46.

The study includes only primary data which was gathered using the questionnaire which was distributed offline to reach out to wider audience in Kanpur city.

IV. DATA ANALYSIS AND HYPOTHESIS TESTING RESULTS

(a) Hypothesis 1-
H0: Both investor types do not depend on similar factors while making judgments/analysis
H1: Young and experienced investors behave differently while making judgments/analysis
The data collected was tabulated for analysis and chi square tests were applied as given in Table 1 to 4

Table 1
Age Of Investors * Basis of Judgement Cross tabulation

				BASIS OF JUDGEMENT			
				SELF	Broker/Friends	Media/Expert opinions	Total
AGE OF INVESTORS	0-29	Count		6	13	4	23
		% within AGE OF INVESTORS		26.1%	56.5%	17.4%	100.0%
	30-100	Count		4	6	13	23
		% within AGE OF INVESTORS		17.4%	26.1%	56.5%	100.0%
Total		Count		10	19	17	46
		% within AGE OF INVESTORS		21.7%	41.3%	37.0%	100.0%

Table 2
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.744[a]	2	.021
Likelihood Ratio	8.060	2	.018

	Value		
Linear-by-Linear Association	4.564	1	.033
N of Valid Cases	46		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.00.

Table 3
EXP of Investors * Basis of Judgement Cross tabulation

				BASIS OF JUDGEMENT			
				SELF	Broker/Friends	Media/Expert opinions	Total
EXP OF INVESTORS	0-6	Count		6	13	4	23
		% within EXP OF INVESTORS		26.1%	56.5%	17.4%	100.0%
	7-20	Count		4	6	13	23
		% within EXP OF INVESTORS		17.4%	26.1%	56.5%	100.0%
Total		Count		10	19	17	46
		% within EXP OF INVESTORS		21.7%	41.3%	37.0%	100.0%

Table 4
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.744[a]	2	.021
Likelihood Ratio	8.060	2	.018
Linear-by-Linear Association	4.564	1	.033
N of Valid Cases	46		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.00.

(b) Test Result of Hypothesis 1

From the tables 1 to 4 we can clearly observe that majority of young investors (56.5%) trust on judgement analysis of brokers' and friends' and majority of experienced investors (56.5%) trust on judgement analysis of Media/Experts.

From above Chi Square table we can observe that we reject Null hypothesis. Hence, Alternate hypothesis holds true i.e. "Young and experienced investors behave differently while making judgments/analysis"

(c) Hypothesis 2-

H0: Trading volume of shares is not having any impact on investment decisions of both types of investors'.

H1: Trading volume of shares is having impact on investment decisions of both types of investors'.

The data collected was tabulated for analysis and chi square tests were applied as given in Table 5 to 8

Table 5
Age of Investors * Decision Based on Trading Volume Cross tabulation

				DECISION BASED ON TRADING VOLUME			
				YES	SOME TIMES	NO	Total
AGE OF INVESTORS	0-29	Count		5	14	4	23
		% within AGE OF INVESTORS		21.7%	60.9%	17.4%	100.0%

	30-100	Count	4	19	0	23
		% within AGE OF INVESTORS	17.4%	82.6%	0.0%	100.0%
Total		Count	9	33	4	46
		% within AGE OF INVESTORS	19.6%	71.7%	8.7%	100.0%

Table 6
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.869[a]	2	.088
Likelihood Ratio	6.417	2	.040
Linear-by-Linear Association	.707	1	.401
N of Valid Cases	46		

a. 4 cells (66.7%) have expected count less than 5. The minimum expected count is 2.00.

Table 7
EXP of Investors * Decision Based on Trading Volume Cross tabulation

			DECISION BASED ON TRADING VOLUME			
			YES	SOME TIMES	NO	Total
EXP OF INVESTORS	0-6	Count	5	14	4	23
		% within EXP OF INVESTORS	21.7%	60.9%	17.4%	100.0%
	7-20	Count	4	19	0	23
		% within EXP OF INVESTORS	17.4%	82.6%	0.0%	100.0%
Total		Count	9	33	4	46
		% within EXP OF INVESTORS	19.6%	71.7%	8.7%	100.0%

Table 8
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.869[a]	2	.088
Likelihood Ratio	6.417	2	.040
Linear-by-Linear Association	.707	1	.401
N of Valid Cases	46		

a. 4 cells (66.7%) have expected count less than 5. The minimum expected count is 2.00.

(d) Test Results of Hypothesis 2
From tables 5 to 8 we can clearly observe that less no. of young investors' (21.7%) decision totally based on trading volume of shares and less no of experienced investors' (17.4%) decision also based on trading volume of shares.

From above Chi Square table we can observe that we fail to reject Null hypothesis hence, we can say that

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"Trading volume of shares is not having any impact on investment decisions of both types of investors'.

(e) Hypothesis 3-

H0: Both investor types purchase behaviour regarding shares is not affected by peer group decision making.

H1: Both investor types purchase behaviour regarding shares is affected by peer group decision making

The data collected was analyses and tabulated at Table 9 to 12

Table 9
Age Of Investors * Decision Impacted By Peer's Decision Cross tabulation

			DECISION IMPACTED BY PEER'S DECISION			
			POSITIVE	NEGATIVE	NO CHANGE	Total
AGE OF INVESTORS	0-29	Count	12	5	6	23
		% within AGE OF INVESTORS	52.2%	21.7%	26.1%	100.0%
	30-100	Count	14	6	3	23
		% within AGE OF INVESTORS	60.9%	26.1%	13.0%	100.0%
Total		Count	26	11	9	46
		% within AGE OF INVESTORS	56.5%	23.9%	19.6%	100.0%

Table 10
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.245[a]	2	.537
Likelihood Ratio	1.264	2	.531
Linear-by-Linear Association	.852	1	.356
N of Valid Cases	46		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 4.50.

Table 11
EXP of Investors * Decision Impacted By Peer's Decision Cross tabulation

			DECISION IMPACTED BY PEER'S DECISION			
			POSITIVE	NEGATIVE	NO CHANGE	Total
EXP OF INVESTORS	0-6	Count	12	5	6	23
		% within EXP OF INVESTORS	52.2%	21.7%	26.1%	100.0%
	7-20	Count	14	6	3	23
		% within EXP OF INVESTORS	60.9%	26.1%	13.0%	100.0%
Total		Count	26	11	9	46
		% within EXP OF INVESTORS	56.5%	23.9%	19.6%	100.0%

Table 12
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.245[a]	2	.537
Likelihood Ratio	1.264	2	.531
Linear-by-Linear Association	.852	1	.356
N of Valid Cases	46		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 4.50.

(f) Test Result of Hypothesis 3

From tables 9 to 12 we can clearly observe that majority of young investors' (52.2%) attitude is positively affected by peer group's decision making and majority of experienced investors' (60.9%) attitude is also affected by peer group's decision making.

From above Chi Square table we can observe that we fail to reject Null hypothesis hence, we can say that "Both investor types purchase behaviour regarding shares is not affected by peer group decision making.

V. CONCLUSION

This research investigates the behavioural patterns of investors in Kanpur City and tries to understand how these patterns guide investment decision. This research offers many useful insights for students, instructors, academedicians concerned with financial markets. It facilitates financial advisors to become more effective by understanding their clients psychology. It aids them in developing behaviourally modified portfolio, which best suits their clients' predisposition.

It can be concluded from first hypothesis that majority of young investors trust on judgement analysis of brokers and friends and majority of experienced investors trust on judgement analysis of Media/Experts and "Young and experienced investors behave differently while making judgments" .It can be concluded from second hypothesis that less no. of young investors and experienced investors 'decision totally based on trading volume of stocks and "Trading volume of shares is not having any impact on investment decisions of both types of investors". It can be concluded from third hypothesis that majority of young investors and experienced investors attitude is positively affected by peer group's decision making.

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