ECONSPEAK: A Journal of Advances in Management IT & Social Sciences,

Vol. 6, Issue 5, May 2016 Impact Factor 4.282 ISSN: (2231-4571)

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DEMOGRAPHIC IMPACTS ON INVESTMENT BEHAVIOUR OF WOMEN – A CASE STUDY OF WESTERN UTTAR PRADESH

Dr G.K.Mittal

Associate Professor

HOD- Department of Accounts & law

Faculty of Commerce

Shri Varshney (PG) College , Aligarh

Abstract- This paper aims to study the impact of demographic factors of women investors such as Age, qualification, Profession & Income level on the Behavioural biases such as Overconfidence/ Under-confidence and Herding. The purpose of the investigation is to determine how demographic factors creates a difference in investor's behaviour. Present study is based on the data collected from a sample of 150 women investors of Western U.P through questionnaire. The study focuses particularly on the women investors in the area where gender biasness are frequently observed. Therefore, through the present research an attempt is made to identify the factors which can be managed to influence the decisions of the women investors. The result shows that investor's behaviour do rely upon the demographics of investors and age is found to be the most influencing factor. Profession and qualification has also a significant impact of investor's behaviour.

Keywords: Investment Behaviour, Women Investors, Behavioural Biases, Demographic, Factors, Investment Decision.

INTRODUCTION

Behavioural Finance is the key concept to understand and explain the psychological influence of investor's on their decision making process while investing. Behavioural finance studies the impact of psychology on finance. "Behavioural finance is, relatively speaking, in its infancy. It is not a separate discipline, but instead will increasingly be part of mainstream finance" (Ritter, 2013, Page 437). In Behavioural finance, Psychology is the approach to examine investor's decision making which deviates from rational model based on the assumptions that how market & investors should behave. Individuals are subject to various behavioural and psychological biases & these biases prevent them to make rational and logical decisions. Behavioural biases significantly influence both the individual investment decision as well as market outcomes. It detects the complex aspects of the human mind in the face of uncertainty while making investment choices. Mintzberg et.al (1976) proposed a three stage rational decision- making process and the stages are: problem identification, development of alternatives and selection. Kahneman and Tversky (1974) were the first who identified heuristics as mental shortcuts of human. It is observed in many studies that behavioural biases depend on the demographics of investors (Prosad et.al.2015). A number of survey indicate that men and women differ significantly (Odean, 2001). When it comes to investment and females in India, there has always been a stereotype. Consequently, In spite of extensive study of behavioural finance, research in developing countries stayed frightened in this area. Hence, the present paper aims to investigate the extent to which demographic factors affect behavioural biases of women investors in Western Uttar Pradesh. This study is a contribution to existing literature and a help in developing and expanding guideline to women investors, Policy makers and other market participant.

Review of Literature

Literature on Behavioural finance – Kahneman and Twersky (1974) who are also known as the father of behavioural finance in their study judgement under uncertainty describe three heuristics (Representativeness, Availability heuristic & Adjustment and Anchoring) which are employed in making judgement under uncertainty suggests that a

better understanding of these heuristic and biases may improve the judgement under uncertainty. Ritter (2003) has provided a concise introduction of behavioural finance that Behavioural finance drops the assumption of traditional finance. He conclude with two building blocks in the area of behavioural finance which are cognitive psychology that how people think and the limits to arbitrage describe that when markets will be inefficient. Daniel and Twersky (1979) established the milestone theory in the area of behavioural finance "Prospect theory" which deviate its view from expected utility theory. Theory states that investors sometimes act irrationally. Thaler (1999) who was the finance theorist behind the practical consequences of prospect theory for financial markets, describes the significance of behavioural aspects in finance as finance is no longer a contentious field that is used to be at once. Hemanathan (2015) also provided a brief introduction of Behavioural finance as a research of psychological accuracy on market practitioners' behaviours and subsequent market effects. Behavioural finance is the region of concern because it attempts to clarify how and why the market could be ineffective. In addition, Hirshliefer (2015) said that Behavioural Finance studies the use of psychology for financial decision process, concentrating on individual cognitive biases. Shefrin (1999) Defined behavioural finance as a quickly rapidly growing region dealing with Psychology's impact on financial practitioners' behaviour. Al-Tamimi (2005) found that Behavioural finance focuses on investors perceiving and behaving on data available to create investment choices. Furthermore, behavioural finance places emphasis on investor behaviour that leads to different market anomalies. Hammond (2015) gave a thorough literature review on past and present status of behavioural finance.

Literature on Overconfidence bias – Odean (2001) tested the model that male trade excessively and overconfidence is the reason of this behaviour. Rational investors trade only when the anticipated earnings achieve the cost of the transaction. Investors who are overconfident use their informational inputs to overestimate the consistency and expected trade earnings. On the other hand, Jayaraj (2013) Tried to define variables that affect the investment behaviour of retail investors and recognize certain variables (including overconfidence) which play a significant role while making investment decision amongst retail investors. Bashir et.al. (2013) concentrated on certain behavioural biases affect

investment choices taken by students and staff and finds that there is no important link between gender & overconfidence (Contrary to Barber & Odean's study, 2001). Mishra et.al (2015) confirmed that behavioural biases found to be greater among males than females and rises considerably with experience of investment & education. Bajtelsmit et.al (1997) in their study "Why Do Women Invest Differently than Men?" found that women invest their pensions more conservatively than men. Study talks about biological and social dimension of gender difference & discusses what leads women to act differently. Ranjbar et.al (2014) through structure equation modelling tried to assess the impact of cognitive emotions and mistakes on investors in the stock exchange and propose that overconfidence can help investors predict future trends in uncertain circumstances so that they can depend on their skills and abilities.

Literature on Herding- Caparrelli et.al (2004) stated that ultimately investors are like prehistoric men that had little understanding about their surrounding environment and guide themselves mutually. They tested herding behaviour for the Italian stock market and find that Herd behaviour exists under extreme market circumstances, both in aspects of persistent development and elevated stock levels. Oprean (2014) has presented her view about herding behaviour of investors that humans behave like animals, feeling secure in group (crowd behaviour). Prosad et.al (2015) survey evidence of their study showed that behavioural biases are dependent on investor's demographics. Herding showed by a set of investors characteristics. Mobarek et.al (2014) found a significant common herding behaviour amongst the large number of European market's participants. They reported that people tend to follow crowd when they feel risk. Ranjbar et.al (2014) revealed that herding impose a strong impact on the performance of investors in Tehran Stock Exchange as it is not a mature stock exchange and scarcity of accurate and proper information is an existing problem there. Hirshleifer and Teoh (2003) noted out that excess confidence could perform a useful part in improving stock exchange herding behaviour.

OBJECTIVES OF THE STUDY

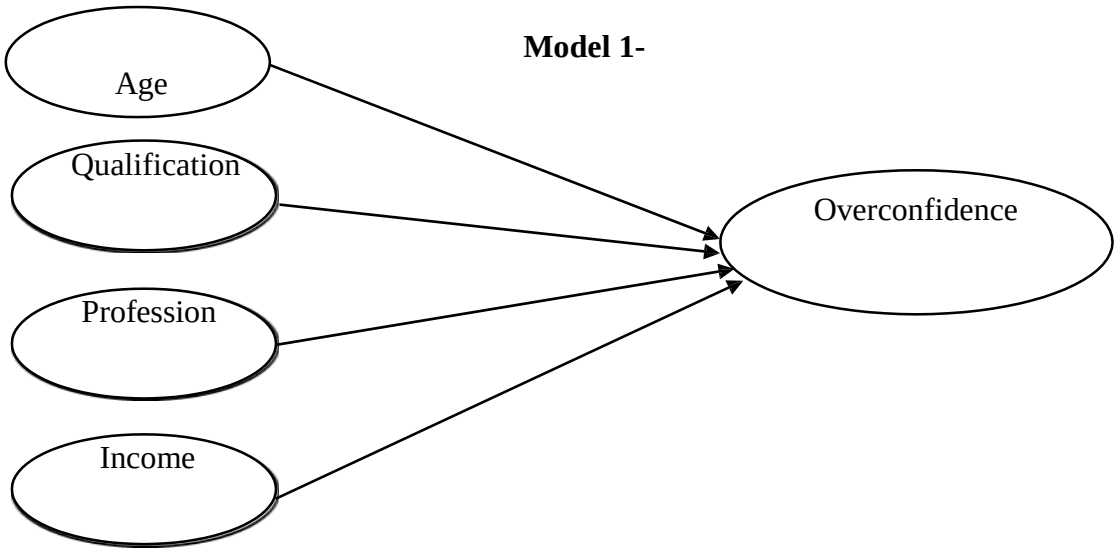
- To investigate whether behavioural biases exist among women investors.
- To investigate whether behavioural biases influence the decision making of women.
- To investigate whether demographic profile of women such as age, Academic Education, Profession, Income level affect the behavioural biases amongst women.

DATA AND METHODOLOGY

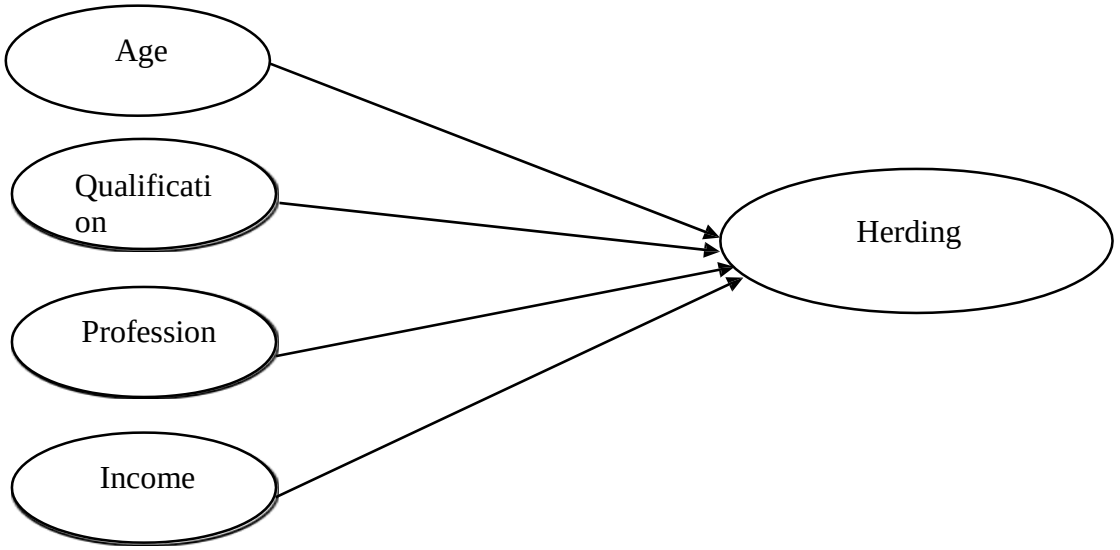
Primary data has been collected by means of a survey based technique which explore the effect of demographic factors on Behavioural biases of women investors. As per the objectives of this study, only a targeted portion of the population has been approached. Hence the data has been collected from the women of western Uttar Pradesh through a questionnaire. Only those who were interested and were interacted has been included in the sample size of 150 women. The respondent of western U.P has been selected for the reason that this region has some demographic, cultural & economic patterns which separate Western U.P. from other parts of Uttar Pradesh. Western Uttar Pradesh shares its boundaries with the states of Delhi, Madhya Pradesh, Rajasthan, Uttarakhand & Haryana. Therefore it is a mixed cultural zone for the purpose of survey. Western U.P comprises of six divisions and 30 districts. Convenient sampling has been conducted for the study. Descriptive analysis, ANOVA and Regression analysis are the statistical tools in the study & Cronbach's Alpha has been applied for the purpose of reliability test of questionnaire.

THEORETICAL MODEL OF STUDY

Model 1-



Model 2-



Operational Definitions of the Behavioural Biases

Overconfidence- Overconfidence can be defined as the tendency of people to overestimate their skill and judgement ability in regards of predicting value of security and market outcomes. Overconfident investors generally trade excessively resulting adverse effect on their return.

Herding – Herding is a habit of people to follow the crowd without checking the relevancy with their own financial goals. Human is a social animal & feel safe in crowd, this inclination of human towards society make them follow the crowd.

HYPOTHESIS

To acquire the objectives of the study, following hypotheses are framed:

H01- There is no significant impact of demographic profile on behavioural biases such as Overconfidence/ Under-confidence & Herding amongst women.

H01a- There is no significant impact of age on overconfidence.

H01b -There is no significant impact of qualification on overconfidence.
H01c -There is no significant impact of profession on overconfidence.
H01d -There is no significant impact of income level on overconfidence.
H01e-There is no significant impact of age on herding.
H01f -There is no significant impact of qualification on herding.
H01g -There is no significant impact of profession on herding.
H01h -There is no significant impact of income level on herding.

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Respondent's Profile

Age	Frequency	Percent
20-30	84	56.0
30-40	28	18.7
40-50	12	8.0
50 Above	26	17.3
Total	150	100.0

Qualification	Frequency	Percent
Undergraduate	30	20.0
Graduate	44	29.3
Post Graduate	66	44.0
Doctorate	10	6.7
Total	150	100.0

Income	Frequency	Percent
Unto 250000	96	64.0
250000-500000	34	22.7
500000-750000	10	6.7
Above 750000	10	6.7
Total	150	100.0

Profession	Frequency	Percent
Business	4	2.7
Service	74	49.3
Homemaker	50	33.3
Student	22	14.7
Total	150	100.0

Results and Discussion

Model- 1

Reliability Statistics

Cronbach's	N of Items
.744	5

* Overconfidence

To check the reliability of questions measuring overconfidence among respondents Cronbach's Alpha has been applied. It is a commonly accepted measure of construct. Cronbach's alpha of model first is 0.744 which indicated the reliability level of overconfidence tool is acceptable. Result reveals that reliability of items measuring overconfidence is greater than the benchmark 0.70 which makes it a preferable scale.

Model Summary

Model	R	R Square	Adjusted R	Std. Error of the
1	.360[a]	.130	.105	.69438

a. Predictors: (Constant), income, age, profession, qualification

Result of R square indicates that selected variables, income, age, qualification, profession together explain the overconfidence bias among the women investors to the extent of 13% which is clearly visible from the R square value of .130 and adjusted R square value 0.105 therefore, the relevance of variable included in the model for explaining the overconfidence bias is more than 10%.

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	10.402	4	2.600	5.393	.000b
	69.913	145	.482		
	80.315	149			

a. Dependent Variable: Overconfidence

b. Predictors: (Constant), income, age, profession, qualification

The selected independent variable income, age, profession, qualification significantly impact the dependent variable (overconfidence) which can be observed from the P value 0.000 that is less than the critical value of 0.05. Moreover, the significance is also visible through the F value of 5.393 at DOF of 4 which is more than the tabulated value at 95% confidence level. Therefore, we reject the first Null hypothesis which says that there is no significant impact of demographic profile on Overconfidence amongst women. This shows that there is an association between demography of respondent and overconfidence.

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.862	.315		12.272	.000
Age	-.194	.057	-.304	-3.379	.001
1	-.035	.077	-.042	-.463	.644
Qualification	-.177	.076	-.185	-2.312	.022
Profession	.125	.073	.150	1.709	.090

a. Dependent Variable: Overconfidence

The result indicates that the P value for age is 0.001 less than 0.05 so it can be said that age has a significant impact on overconfidence bias. Hence, we reject our second hypothesis which states that there is no significant impact of age on overconfidence. Beta

value for age is negative which shows that age has a negative correlation with overconfidence, means overconfidence decreases as age increases. The P value for qualification is 0.644 which is more than the significant value 0.05. So it cannot be concluded that profession has any significant impact on overconfidence bias. Hence, we accept the third null hypothesis which says that there is no significant impact of qualification on overconfidence. The P value for profession is 0.022 which is less than the significant value 0.05. So it can be said that profession has a significant impact on overconfidence bias. Hence, we reject the fourth null hypothesis which states that there is no significant impact of profession on overconfidence. The P value for income is 0.09 which could be accepted at 0.10 significance level but not fit with 0.05 significant level so we accept the fifth null hypothesis which says that income has no significant impact on overconfidence bias.

Model 2-

Reliability Statistics

Cronbach's Alpha	N of Items
.761	5

* Herding

To check the reliability of questions measuring herding among respondents Cronbach's Alpha has been applied. Cronbach's alpha of the model first is 0.761 which indicates that the reliability level of herding is acceptable. Result reveals that reliability of items pertaining herding is greater than the benchmark 0.70 which makes it a preferable scale.

Model Summary

Model	R	R Square	Adjusted R	Std. Error of the Estimate
2	.396[a]	.157	.134	.72690

a. Predictors: (Constant), income, age, profession, qualification

Result of R square indicates that selected independent variables, income, age, qualification, profession together explain the herding bias among the women investors

to the extent of 15% which is visible from the R square value of .157 and adjusted R square value .134 therefore, the relevance of variable included in the model for explaining the herding bias is more than 15%.

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
2 Regression	14.279	4	3.570	6.756	.000[b]
Residual	76.616	145	.528		
Total	90.895	149			

a. Dependent Variable: Herding
b. Predictors: (Constant), income, age, profession, qualification

The selected independent variable income, age, profession, qualification significantly impact the dependent variable (herding) which can be observed from the P value 0.000 that is less than the critical value of 0.05. Moreover, the significance is also visible through the F value of 6.75 at DOF of 4 which is more than the tabulated value at 95% confidence level. Hence, we reject the first Null hypothesis which states that there is no significant impact of demographic profile on herding amongst women. The result shows that there is an association between demography of respondent and herding.

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
2 (Constant)	3.263	.329		9.906	.000
Age	.159	.060	.235	2.653	.009
	-.180	.080	-.202	-2.239	.027
Qualification	.047	.080	.047	.592	.555
	-.112	.076	-.127	-1.471	.143

a. Dependent Variable: Herding

The result indicates that the P value for age is 0.009 less than 0.05 so it can be said that age has a significant impact on herding bias. Hence, we reject our sixth hypothesis which states that there is no significant impact of age on herding. Beta value for age is positive which shows that age has a positive correlation with herding, means tendency of herding increases as age increases. The P value for qualification is 0.027 which is less than the significant value 0.05 so the inference can be taken that profession has a significant impact on herding bias. Hence, we reject the seventh null hypothesis which says that there is no significant impact of profession on herding. The P value for profession is 0.555 which is more than the significant value 0.05. So it cannot be drawn from result that profession has any significant impact on herding. Hence, we accept the eighth null hypothesis which states that there is no significant impact of profession on herding. The P value for income is 0.143 which is more than the significant value 0.05. Hence we accept the ninth null hypothesis which says that income has no significant impact on herding bias.

CONCLUSION

The study found that while taking investment decision people are not always rational unlike the traditional finance, they are subject to various psychological biases. In this research, we evaluated 2 behavioural biases such as overconfidence and herding for a quick instance. Findings of the study shows that demographical factors influence the behavioural biases of women to a certain extent. The highest influencing factors among all is age with respect to investor's behaviour related to both overconfidence and herding. In case of herding, qualification is significant but in case of overconfidence, qualification is not significant. Whereas in case of overconfidence, profession is significant but in case of herding profession has no significant impact. In both cases overconfidence and herding income has no significant impact. This study will assist advisors & experts to predict investor's attitude according to their demographics, specifically in this era where sudden swings and up downs in market are being observed frequently. Study has certain implication for women investors too as the women of Western U.P. are observed under confident resulting they tend to follow others to minimize their risk. The research can therefore help them to fix the decision mistake and to develop better investment decisions.

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