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An Empirical Study of Overconfidence and Illusion of Control Biases, Impact on Investor's Decision Making: An Evidence from ISE

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Abstract:
According to traditional financial theory assume that investor are fully rational and make decision that reflect all available information Fama (1970) but still EMH has failed to explain market behaviour. The purpose of this study is to determine the main behavioural factors that influence the investment decision of individual investor in Islamabad Stock Exchange (ISE). Behavioural finance has emerged by combining emotion and cognitive biases and they are influence to investor and the decision making process. The researchers have found that a number of biases have impact on investment decision but in this paper we discussed the two biases overconfidence and illusion of control are the most dominant influencing on behaviour. In this research paper we used questionnaire survey to collect the date of investor. The result show that the overconfidence and illusion of control biases is significantly impact in investor decision making in ISE
Keyword*:* Behavioural Finance, Overconfidence Bias, Illusion of Control Bias, Investment Decision

Introduction:
According to standard financial theory, an investor are consider a rational person in the meaning to identify and the used relevant information and be efficient to make best decision. In rational decision making process an investor want to maximize their desires, before taking a specific decision an investor will often apply a series of analytical steps to critical review applicable fact, objective and unbiased to potential outcome.
The standard finance belief that the market is efficient means that in the market no one can outperform at any time period, because all information is available to all investors, but in actual many investors can outperform the market because of there is some grey area exit in market due to that in practical market is not efficient. According to Elton et Al. (2003), explain that in 1987 one of the major event of stock market crash to rise due to doubts in EMH.
The Idea of behaviour finance began emerging field in the 1990 and it is completely contradicted with EMH. The behavioral finance is involved on psychological effect in decision making process because it considers investor are normal person, that have specific value and to make their decisions according to their belief (human belief is control their emotions) and behaviour, and in decision making process both of these belief and behaviour are consider driving factor to make their investment decision, and these are also play an important role in investment decision. In the behavioral finance is analysed the outcome of cognitive and emotional elements on the investors decisions making and the result of this decision in the shape of market price and return. The cognitive biases and emotions consider the one of possibility to change the market price from it fundamental value. Because of the significant impact on the investor's behaviour about decision making behavioural finance is developing a key element (emotions and behaviour) of the decision making process. For this reason it is required to realize deferent element (emotions and behaviour) which motivates an investor's to take an investment decision. In this research paper we will use the two cognitive biases overconfidence and Illusion of control to check these cognitive biases on the investors decision process Overconfidence and Illusion of control play an important role in the decision process of investors. According to shefrin (2007) explain that the overconfidence is concern to how well Investors realize their own abilities and boundary of their knowledge. This overconfidence may lead to irrational decisional making by the investors and will suffer a loss (Beenish Tariq, Naeem Ullah Feb 2013). Overconfidence increased with the investor's investments experience. High market returns make investors overconfident and as a result, investors trade more frequently. The Past information lead investor to become over confidence and Result says that the overconfidence bias effect in the investors decision of Karachi Stock Exchange (Muhammad Fayyaz Sheikh and Khalid Riaz, 2012). According to the shefrin, 2007 studies defined that the Illusion of control is "the tendency of people to believe they can control and influence outcomes that in reality they have no influence over". of control prevail in Pakistan society due to that it's create the market inefficiency the main reason behind that the anomalies exist in Pakistan

economy (sidra Ajmal, Maria Mufti, Dr. Zulafqar Ali Shah). A lot of research focusing on the overconfidence of individual investors from developed markets through experimental and questionnaire studies. However, this field is less focused in the emergent markets (Kuo, Kuo & Zhang, 2007). In this paper we will use the questioners to check the effect of investor's behaviour on overconfidence and illusion of control biases. The Questionnaire method is considered the best method to check the attitude of the investors in behaviour finance (Lenney, 1977; Beyer & Bowden, 1997; Bengtsson, Persson & Willenhag, 2005)

Problem Statement:

Is the overconfidence and illusion of control impact on the investor's decision making process in ISE?

Objective of the study:

To check the impact of overconfidence and illusion of control on the investors decision making process.

Significance of Studies:

Our research will helpful for the literature. There is majority of research on the standard finance that Man are Rational but in actual People have its own behaviour (emotions and cognitive). And Behaviour Biases have a lot of impact on the investment decisions. No doubt many researchers have conducted and identify the behaviour biases in their research. In our research we have used the two major bias of behaviour (over confidence and Illusion of control) which definitely have a lot of impact on investors decision. This will be helpful for the academic researchers to identify the different biases on investor's decision in different markets.

Our research has a significance value for the practical oriented people. This will also be helpful for the investors to predict the different biases in their behaviour. It will also be helpful for the people to estimate how people normally react in the market. In fact, it may help the investors in understanding their behaviour and control their emotion and reduce their loss. It may also helpful for financial analysts and portfolio managers to give their recommendations more accurately.

Literature review:

According to conversional financial theory, an investor are consider a rational person in order to identify and the used relevant information and be efficient to make best decision. In traditional financial theory are used to understand the different issue such as, why do an investor treaded, how do they do their task and why do return change so rapidly yet across stocks for cause other than risk. Standard finance says that market is efficient but there is some grey area exit in market due to that in practical market is not efficient.

In behavioural finance consider people are normal. Behavioural finance is an emerging field that presents a collection of alternate approached to elaborate the classical finance definition of economic rationality. Behavioural finance described on the psychology, attribution and cognitive literature's to analyze why an investor decision making frequently vary from rational alternative in regular ways. In rational decision making process an investor want to maximize their desires, before taking a specific decision an investor will often apply a series of analytical steps to critical review applicable fact, objective and unbiased to potential outcome. Tverskey and kahneman suggested the prospect theory that to explain an investor decision making behaviour under ambiguous consideration. The prospect theory allowing that there are many psychological factors of investor's that cause their existent decision making process to vary from rationality, the argument of bounded rationality will continue by Sinon (1957). According to Robbins (2002) rational decision maker in general make a decision on the base of under certain logic and systematic decision process.

Behaviour finance says that Investor is a normal person and there is many biases effect on his decision making process. These biases may be on the cognate or emotion bases. In this paper we will discuss two cognitive biases, overconfidence and illusion of control and their impact on investor's decision.

Sindhu M. I. (2014) analyse the overconfidence hypothesis in the Karachi stock exchange. Assuming that past returns lead to investors to become overconfident, they tested the hypothesis that turnover was positively related to past returns. Another implication of overconfidence theory is that trading by overconfident investors contributes to the returns volatility. Accordingly, they tested the hypothesis that returns volatility is positively associated with overconfidence related turnover.

Overconfidence and Illusion of control play an important role in the decision process of investors. In overconfidence the investors overestimate their ability, they think that they have better information than they actually do "Too many people overvalue what they are not and undervalue what they are". Investors overvalue their own capabilities and make the excessive trading in stock market. According to Shefrin (2007) explain that the overconfidence is concern to how well Investors realize their own abilities and boundary of their knowledge. In Pakistan economy Investors behaviour is not different. In Pakistan investors always focus only towards the return and ignore the turnover the market. This overconfidence may lead to irrational decisional making by the investors and will suffer a loss (Beenish andNaeem Ullah Feb 2013). Tunisian investors seem to be overconfident. Furthermore, age and income are not related to self confidence in Tunis. Overconfident men tend to trade more than women (salma zaine,Ezzeddine). Barber, Gervais & Odean (2001) argued that men are more overconfident than women and that overconfidence decreases with experience and kirchler and maciejovsky in 2002 study that Overconfidence increase with their investor's investments experience. High market returns make investors overconfident and as a result, investors trade more frequently. In fact, trading activities effected by past market returns. There is significant positive relation between volume and volatility (Salma Zaiane and Ezzeddine Abaoub 2009).

In over confidence, investor trades more aggressively. The Past information lead investor to become over confidence and Result says that the over confidence bias effect in the investors decision of Karachi Stock Exchange. (Muhammad Fayyaz Sheikh and Khalid Riaz 2012). Behaviour Finance impact the more in the decision making process of small investors in LSE than the conventional financial theories (Naveed Ahmed, Zulfqar Ahmad and Sarfaraz Khalil Khan, 2011).

According to the shefrin, 2007 studies defined that the Illusion of control is "the tendency of people to believe they can control and influence outcomes that in reality they have no influence over". Illusion of control is a psychological term referring to the tendency of people to overestimate their abilities to control any event, where as market efficiency is the phenomena primarily explained by Fama (1970). Illusion of control prevail in Pakistan society due to that it's create the market inefficiency the main reason behind that the anomalies exist in Pakistan economy (sidra Ajmal,Maria Mufti, Dr.Zulafqar Ali Shah). Illusions caused by over-confidence lead investors to overestimate their predictive ability (under EMH they have none) and to attempt to 'time' the market by buying or selling shares in advance of an anticipated share movement. One side effect of this can be to cause excessive trading, leading to increased trading costs (Sudhir Singh, February 2012). According to the Jonathan J. Koehler et al, (1994) results support the idea that people do a better job reasoning about probabilistic outcomes when they are prompted to think about those outcomes in terms of relative frequencies. As noted probabilities that are presented as relative frequencies call attention to outcome variation and the underlying random component that helps produce this variation.

Hypothesis:

H0: there is a significant relationship between overconfidence and Illusion of control biases and investor's decision in ISE.

H1: there is no significant relationship between overconfidence and Illusion of control biases on the investor's decision in ISE.

Data and Methodology:

In This Research Paper, We collect the data Through the Questioners from the investors and brokers Of ISE. We have distributed the 140 questioners from which 107 questioners have received back in completed form. So our response rate is 76%. Our questioner consists of 13 questions. In which we divided it in 3 categories over confidence, Illusion of control and Investment decision (variables). Each category contains the 5, 4 and 4 questions respectively. We used the lackered scale from 1 to 5(1.Strongly disagree and 5.Strongly agree) for measurement of investors behaviour.

$$\mathbf{ID = \beta o + \beta 1\ (OC) + \beta 2\ (IoC) + \varepsilon}$$

Results and Discussions:

Reliability Statistics

Cronbach's Alpha	N of Items
.843	13

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.869[a]	.755	.750	.224	1.473

a. Predictors: (Constant), IOC, OC

b. Dependent Variable: ID

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	16.049	2	8.024	159.879	.000[a]
	Residual	5.220	104	.050		
	Total	21.269	106			

a. Predictors: (Constant), IOC, OC

We have used the regression analysis technique in this research to explore the relationship between a independent variable (Overconfidence and Illusion of control biases) and the dependent variable. In this study we used the research questionnaire. The research Questioner consists of 13 questions and our reliability is 84%

and reliability is considered more reliable when more than 70%. So Which Show that our data of questioners is more reliable. R- Squared is a statistical term explaining how good one term is at predicting another. The value of R-Square is show 0.757, which mean that 75.7% variation between over dependent variable (investment decision) and independent variable (Overconfidence and Illusion of control). The F value 159(p<.01).Which is highly significance. Which means our model is fit. And in our data the results of Durbin-Watson test is 1.47.This is more than 1 and almost near to 2.Which show that there is no auto correlation exits.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	.562	.194		2.900	.005
	OC	.421	.046	.518	9.173	.000
	IOC	.480	.056	.482	8.542	.000

a. Dependent Variable: ID

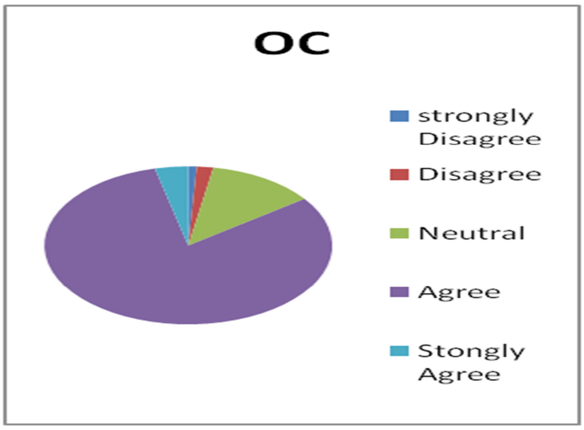
Our all variable are highly significance.

ID=.56 + 0.42(OC) + .480 (IOC)

So our coefficients show that there is a positive relationship of investor's decision with, illusion of control and over confidence. So the result shows that the biases are significantly impact on the investor decision making behaviour. On the basis of the result our null hypothecs H0 rejected and our Alternative hypothesis H1 accepted. There is a significance impact of Illusion of control and overconfidence on the investor's decision of ISE.

Exhibit 2 OC

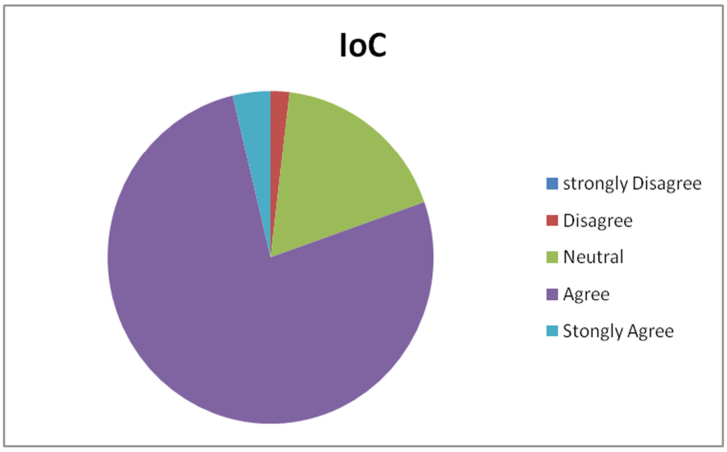
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.9	.9	.9
	Disagree	2	1.9	1.9	2.8
	Neutral	13	12.1	12.1	15.0
	Agree	87	81.3	81.3	96.3
	Strongly Agree	4	3.7	3.7	100.0
	Total	107	100.0	100.0	



On the response of our Questions on Over confidence exhibit 2 Show that 87(81.3%) respondents out of 107(100 %) respondents respond on Agree(4).and 12 % respondents respond to neutral(3).which show that majority of people in Islamabad Stock Exchange view themselves as an overconfidence. And majority of people have influence on overconfidence bias.

Exhibit 3 IOC

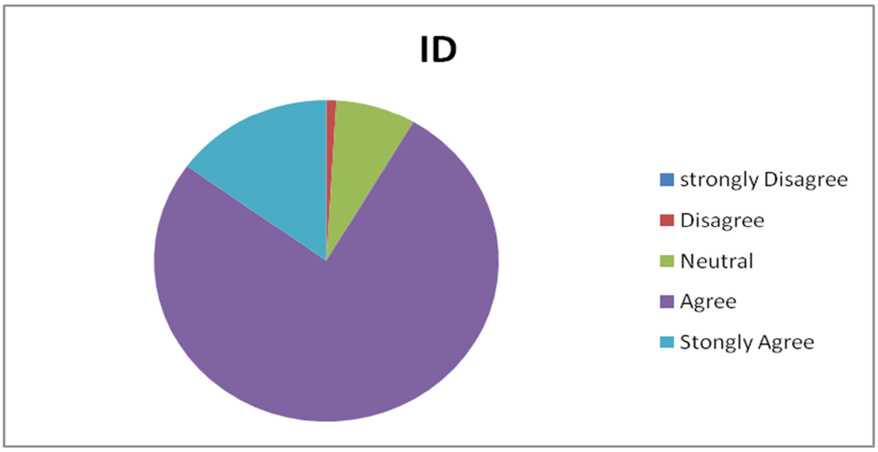
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	1.9	1.9	1.9
	Neutral	19	17.8	17.8	19.6
	Agree	82	76.6	76.6	96.3
	Strongly Agree	4	3.7	3.7	100.0
	Total	107	100.0	100.0	



On the response of the questions of Illusion of control exhibit 3 shows that 82 (76.6%) respondents response on agree (4).and 19 (17.8%) respondents response to neutral (3). So According to the result we can say that investors in Islamabad Stock exchange have Illusion of control bias and their decision have also impact due to this biased also.

Exhibit 4 ID

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	.9	.9	.9
	Neutral	8	7.5	7.5	8.4
	Agree	82	76.6	76.6	85.0
	Strongly Agree	16	15.0	15.0	100.0
	Total	107	100.0	100.0	



On the response of the questions on Investment decisions exhibit 4 show that 82(76.6%) respondents response on agree (3) and the 16 respondents response on Strongly agree (15 %).So majority of people investing decisions are impact due to the Illusion of control and overconfidence biases.

Conclusion:

The objective of this research we check the impact two biases overconfidence and illusion of control on the investor's decisions on the Islamabad stock exchange. In this study we used questionnaire and majority of respondent are Male. On the base of research we found that over confidence and illusion of control bias has found in the investor decision of ISE. And the decision of investors has impact a lot due to these two biases. People think that their knowledge, experience and wealth have a great impact on the investment decisions. Overconfidence Investors in ISE trade more rapidly due to their skill, knowledge and experience. This studies also show that Male are more overconfidence than female. Investors don't much focus on fundamental or technical analysis on their decisions.

Future research direction:

As a future research for getting more reliable result of psychological biases impact on investor decision making will be include the other behavioral biases like the loss aversion biases, and their impact on trading volume of ISE for used the some lager sample size. As a Future research, it would be interesting to check the overconfidence and illusion of control biases with trading volume of ISE. Furthermore, sample size.

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Appendix 2

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	90	84.1	84.1	84.1
	female	17	15.9	15.9	100.0
	Total	107	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 30	18	16.8	16.8	16.8
	31-40	41	38.3	38.3	55.1
	41-50	30	28.0	28.0	83.2
	Greater then 50	16	15.0	15.0	98.1
	5	2	1.9	1.9	100.0
	Total	107	100.0	100.0	

Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Matriculation	3	2.8	2.8	2.8
	Intermediate	21	19.6	19.6	22.4
	Becholar	51	47.7	47.7	70.1
	Master	29	27.1	27.1	97.2
	Other	3	2.8	2.8	100.0
	Total	107	100.0	100.0	

Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Government	8	7.5	7.5	7.5
	Private	43	40.2	40.2	47.7
	Professional	23	21.5	21.5	69.2
	Business	24	22.4	22.4	91.6
	Other	9	8.4	8.4	100.0
	Total	107	100.0	100.0	

Appendix 3

Correlations

		ID	OC	IOC
Pearson Correlation	ID	1.000	.763	.746
	OC	.763	1.000	.509
	IOC	.746	.509	1.000
Sig. (1-tailed)	ID	.	.000	.000
	OC	.000	.	.000
	IOC	.000	.000	.
N	ID	107	107	107
	OC	107	107	107
	IOC	107	107	107