BEHAVIORAL FACTORS INFLUENCING INDIVIDUAL INVESTOR'S INVESTMENT DECISION AND PERFORMANCE, EVIDENCE FROM PAKISTAN STOCK EXCHANGE.

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ABSTRACT *This paper's objective is to study the behavioral factors that influencing the decision and performance of individual investor in Pakistan stock exchange. There are many behavioral factors like over confidence, representativeness, anchoring, mental accounting, loss aversion and regret aversion can affect the individual investor's investment decision and performance. Research was conducted to identify that which behavioral factors are more influencing in Pakistan stock exchange and their effect on the investors who are investing in Pakistan stock exchange. This study discussed the two theories heuristic and prospect theory. Heurist theory involves representativeness, overconfidence, anchoring, gambler fallacy, availability bias and prospect theory involves loss aversion, regret aversion and mental accounting. This research is based on the primary data. The sample data comprising of 150 individual investors of Pakistani stock exchange. Preliminary results show the height positive relation of heuristics on the investment performance while prospect does not affect the investment performance. The findings were developed through the regression analysis with the usage of statistical SPSS. Finding shows that representativeness, over confidence; anchoring, availability bias, and gamblers fallacy have positive impact on investment performance.*

Key words: Behavioral finance, Pakistan, Pakistan Stock Exchange, Heuristic theory, Prospect theory.

INTRODUCTON

That market in which buying and selling of stocks are take place is called stock market [1]. Stock market plays a vital role in decision making of the investors and it also improves the efficiency of Cooperate governance [1]. There are many benefits of investment in stock market like "long term growth of capital, dividend income and control over the inflation". [3] The liquidity of stock market is more attractive for the investor for investment purpose [2].

Heuristics theory applies those investors who take the decisions in unusual and uncertain environment and make it easy [4] these investors ignore the probabilities and make the decision according to self-prediction [3]. In Limited time period Heuristic investor's investors approach is most useful [4].

LITERATURE REVIEW

Many researchers adopted this study to explore the facts that are involved in it affecting individual investor's decision making process. Most of the scholars researched to find the relation between these affecting factors and in turns to their performance. Stocks are closely related to the level of the investment and largely hit by the decision making of the individuals to invest in certain stocks or not. In a proper definition, it is the market for selling and buying of the stocks or shares of a firm [1]. In a economy, stocks are not only meant for the sale and purchase point of the stocks, but also provide a place where managers of finance can get the wave of knowing the understanding about the character of the stock that where they are moving in the future and will be the consequences of that move. They get the understanding that makes them an environment where they can easily make the decision for certain financial planning and stepping toward the better decisions [4]. The stock is considered to be the most perfect place for capital raise of an organization [2]. Individual investments in the stock are because of the reason that they want to enhance their capital, dividend ratio and to benefit themselves against the risk in their share invest [3]. There are some other reasons too that makes the people to prefer it over the other types of investments that is its ratio of liquidity [2]. Not only people want to enhance their investment in more capital, but another logic behind investment in stock is that they are seeing themselves as the owner of certain business and to provide the dividends to their stock holders when there is increase I the profit of the business and also to value their business people moves their directions towards the stock investments [4]. Management of a firm is investing in the stock to improve their firm control. In order to be a part of the business and to get the knowledge about the decisions make by the firm holder or the directors and CEO, investors are required to have some of the shares of that firm. In this way they can be inner side of the firm and will get informed about any meeting held on the director's level [3].

OBJECTIVES

As evident from the above narrated facts, it is evident that behavioral factors affect the individual investor's investment decision and performance. Significant objectives are stated below:

- Appling behavioral finance to examine the factors that having impact on investment decision making related to individual investor.
- How behavioral factors influencing on investment decisions and performance of individual investor.
- How can Individual investor control behaviors to attain better investment results?
- Set the base for further research on behavioral finance in Pakistan

HYPOTHESIS

Hypothesis H10: The Heuristics have impacts on the investment decision and performance of individuals at the Pakistan Stock Exchange.

H11 : The Heuristics have no or small impact on the investment decision and performance of individuals at the Pakistan Stock Exchange.

Hypothesis H20 : The Prospect have not positive impacts on the investment decision & Performance of individual investors at the Pakistan Stock Exchange.

H21 The Prospect have not positive impacts on the investment decision & Performance of individual investors at the Pakistan Stock Exchange.

Research model

As mentioned in the literature review above, it is undoubtedly that behavioral factor impact the investment decisions of investors in the financial markets, especially in the stock markets. This study explores the influence levels of the behavioral variables on the Individual investors' decisions and their investment performance at the Pakistan Stock exchange, as in the following research model and hypotheses. These hypotheses are tested by using regression analysis that presents the Correlation indexes among the behavioral factors and investment performance.

METHODOLOGY

The methodology of this research is based upon the method of researchers which is suggested by [1], it based upon the research"onion", in this type of research philosophy researcher should be answered by the basic questions related to this research and it will be summaries, follow the research approaches, research tactics, research choice, time limits and methods and ways for data collection and analysis. The chapter of methodology is emphasis on research philosophy as well as the research type, approach in which research is conducted, strategy which is applying in this research**.**

RESEARCH STRATEGY

Research strategy discussed about the direction of the study, it is based upon the existing theories, researches and existing knowledge. On that base the researchers can adopt one strategy from qualitative and quantitative. In this research, we take both quantitative and qualitative but more emphasis on the quantitative method. Quantitative method is used for testing and exploring the behavioral factors and in impact on decision making of individual investor in stock exchange which is best method. For valid result in the research sample size should be more reliable and use sample collection techniques which are identified in the research. In quantitative method we can analysis the data through different statistical methods for the usage of different statistical software. In moderate world researcher use statistical models through statistical software for analysis the collected data.

OURCE OF DATA

To check the behavior of individual investor data is collected from the primary source, which is individual investor in the Pakistan stock exchange. The sample of the data should be individual investor because research is specifically conducted to check the behavior of individual investor. Data are collected through questioner method. Different questions are asked in questioner related to the topic.

POPULATION

Population of this research is individual investor in Pakistan stock exchange. We collect the samples from this population.

SAMPLE SIZE

The sample size of the research is consisting of 150 samples of individual investors in Pakistan Stock exchange.

DATA ANALYSIS

In that section of thesis interpretation of behavior factors and investment performance are present. We classified the behavioral factor in two parts, heuristic and prospect theory. The regression analysis is run out the 150 samples which are collected through questioner. Heuristic theory contains the questions of representativeness, availability bias, overconfidence, gamblers' fallacy. Prospect theory contains the regret aversion, loss aversion and mental accounting. The results are find thought Regression , Anova table and co-efficient of variables.

HEURISTICS FACTORS

For the investment decision and performance the impact of Heuristics is determinates by presenting representativeness, overconfidence, anchoring, gamblers' fallacy and availability bias. These all factor are can be effect the investment decision of individual investor in Pakistan Stock Exchange. Regression analysis is applied to summarize the outcomes. The model summary,

ANOVA table and coefficient are in below table.

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Availability bias, Gamblers fallacy, Overconfidence, Anchoring, Representativeness	.	Enter

a. Dependent Variable: Investment performance

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.393[a]	.155	.125	.46189

a. Predictors: (Constant), Availability bias, Gamblers fallacy, Overconfidence, Anchoring, Representativeness

R^2 is known as coefficient of determination; it is the statistic that describes the total variation cause by the independent variable. If the value of R is high then relationship with dependent variable with independent variable is high. Our model is explaining 15.50% variation in case of heuristic theory. Our independent variables are in case of heuristic theory are Over confidence, Representativeness, Anchoring, Gambler's fallacy, Availability bias. These variables have satisfactory effect on investment performance.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.964	5	1.593	8.062	.000[b]
	Residual	28.056	142	.198		
	Total	36.020	147			

a. Dependent Variable: Investment performance

b. Predictors: (Constant), Availability bias, Gamblers fallacy, Anchoring, Representativeness, Overconfidence

The ANOVA table explains the significance of the research model. The P value of ANOVAs is the significance level 0.0000 in Heuristics which is below 0.05 therefore there is statistical significance at 95% confidence of interval for the dependent variable. This thing conclude that heuristic have impact on investment performance.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.929	.331		8.861	.000
	Representativeness	.129	.056	.212	2.312	.022
	Overconfidence	.101	.058	.154	1.743	.083
	Anchoring	.150	.069	.185	2.176	.031
	Gamblers fallacy	-.015	.049	-.025	-.310	.757
	Availability bias	-.066	.059	-.092	-1.109	.269

a. Dependent Variable: Investment performance

Out of five variables four variables are significant in heuristics because they affect the investment performance. These variables are representativeness, over confidence, anchoring and availability bias. Gambler fallacy is insignificance in this table. The table also shows the most influencing variable overconfidence as the magnitude among the entire variables. This will show that representativeness has higher impact on investment performance at Pakistan stock exchange because its table value is 0.022 which is less than 0.05. The variable Gamblers fallacy has the low magnetite among all the variables. Representativeness, over confidence, anchoring, , are the positively correlated with the investment performance. Gambler fallacy, availability bias are the negatively correlated with the investment performance.

PROSPECT FACTORS

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Mental Accounting, Regret Aversion, Loss Aversion	.	Enter

a. Dependent Variable: Investment performance

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.350[a]	.123	.104	.46729

a. Predictors: (Constant), Mental accounting, Regret aversion, Loss aversion

R^2 is known as coefficient of determination; it is the statistic that describes the total variation cause by the independent variable. If the value of R is high then relationship with dependent variable with independent variable is high. Our model is explaining 12.3% in prospect theory. Our independent variables are in case of prospect theory is loss aversion, regret aversion and mental accounting. These variables have not satisfactory effect on investment performance.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.397	3	1.466	6.712	.000[b]
	Residual	31.443	144	.218		
	Total	35.840	147			

a. Dependent Variable: Investment performance

b. Predictors: (Constant), Mental accounting, Regret aversion, Loss aversion

The ANOVA table explains the significance of the research model. The P value of Anova is the significance level 0.00 in Heuristics which is higher than 0.00 therefore there is not statistical significance at 95% confidence of interval for the dependent variable. This thing concludes that prospect factors significant impact on investment performance.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.696	.305		8.838	.000
	Loss aversion	.067	.051	.107	1.315	.191
	Regret aversion	.171	.058	.236	2.965	.004
	Mental accounting	.109	.053	.165	2.044	.043

a. Dependent Variable: Investment performance

In prospect, regret aversion, mental accounting and loss aversion are the significant variables. The variable Regret aversion in most influencing magnitude wise and the variable loss aversion is less influencing among all the variables magnetite wise.

Reliability test

Case Processing Summary

		N	%
Cases	Valid	148	98.7
	Excluded	2	1.3
	Total	150	100.0

a. List wise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.842	30

DISCUSSION

Representativeness has positive relation with the investment performance, if the one unit of investment performance increase then 0.212 unit of representativeness is increase. It is determinate through the beta value.

Anchoring also has the positive relation with the investment performance. If one unit of investment performance is increase then 0.185 unit of anchoring is increase.

Availability bias has the negative relation with the investment performance. If on unit of investment performance is increase then 0.92 unit of availability bias is decrease. Gamblers fallacy has the negative relation with the investment performance. If one unit of gamblers fallacy is increase then 0.25 unit of gamblers fallacy is decrease. Overconfidence also has the positive relation with the investment performance. If one unit of investment performance is increase then 0.54 units overconfidence is increase. Loss aversions have the positive relation with the investment performance. If 1 unit of investment performance is increase then .107 units of loss aversion is increase. Regret aversion have the positive relation with the investment performance. If one unit of investment performance increases then .236 unit of regret aversion increases.

Mental accounting has negative relation with the investment performance. If one unit of investment performance increases then 0.061 unit of mental accounting is increase.

CONCLUSION

This chapter concludes all the finding related to the behavioral factors having impact on individual investor investment performance. The aim of this paper is to test behavioral factor which effect the investment decision and performance of individual investor. Results are gain through the SPSS analysis. Results show that there are significant relation between behavioral factors and investment performance. Representativeness, availability bias, Regret aversion, metal accounting anchoring, availability bias, gamblers fallacy is positively correlated with investment performance. While on the other hand loss aversion, overconfidence, gambles fallacy have no significant impact on investment performance in Pakistan stock exchange according to this research. This study discussed about the approaches of behavioral finance and its draw the overall picture of behavioral factors influencing individual investment decision and performance. This study is different with other studies because it discussed not about the traditional finance but also a comparatively different area behavioral finance.

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