Juni KhyatISSN: 2278-4632(UGC Care Group I Listed Journal)Vol-13, Issue-02, No.01, February 2023A STUDY ON INVESTMENT ANALYSIS IN STOCK EXCHANGE

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ABSTRACT: The stock market occurs from the interaction of a group of buyers (investors) and sellers of shares (companies), who represent ownership of the business. This includes a security listed on a public stock exchange under government supervision. Shares or stock market can be classified according to the country where the company is domiciled. The stock market has become an attractive and profitable investment today for investors and the stock market has grown rapidly over the years and is getting more and more attention because it deals with the future of money. However, a lot of investors are still worried to invest in stock market today, even investing in stock market results a huge profit. This reason can be the volatility in stock market. Therefore, this study focused on the investors' perceptions towards stock market in different geographical areas. The data collected through online interview and distributing questionnaires to respondents in order to understand their behaviors, attitudes, desires, perspectives and level of awareness towards the stock market. The results showed that investors' perceptions on buying shares in Asia are represented by several indicators, such as neutral information, accounting information, and social relevance, in which these three indicators generate impressions of the company's activities based on profits and fundamental thinking patterns. Therefore, this will have an influence on investors in making decisions on the shares which will be chosen by them in the future.

Keywords: Behaviour, Investors, Perceptions, Stock Market

1. INTRODUCTION

In recent years, it has become increasingly apparent that psychology is becoming more and more popular and it plays an important role in the financial markets as well as the impact of rational actions on financial marketers. Behavioral finance is a well-developed field based on its own theory as well as methods and methodologies. From ethnographic research to experiments. Behavioral finance is informed by three disciplines of psychology. The first is cognitive or behavioral psychology, in which the focus is on how our minds perform the calculations necessary to maximize wealth. Much of the Nobel Prize. The work of Daniel Conman (often in collaboration with the late Amos Tversky) was formed. Second is the emotional response to business intensity, where greater focus on decision-making is more than a calculated process. The third is social psychology, which recognizes the need to find acceptance and even encouragement for our actions. Surely, being rejected by our professional peers can be painful and potentially painful. This shows the results of the market along with the impact of various factors on the attitudes of individuals and company managers involved in investment decisions.

Every individual is different from others due to various factors which include demographic factors, age, race and sex, education level, social and economic background; the same is the situation with the investors. The most condemnatory challenge faced by them is the investment decision; they act in a rational way and commonly follow their inborn tendency and while making investment emotional biases decisions. Conventional theorists assume that most of the investors are risk-averse and try to minimize the risk at the maximum return but the nature of investors depends upon the risk attitude

(UGC Care Group I Listed Journal)

of investors towards the security. Behavioral finance research has emerged tragically in recent years, proving that investors' financial decisions are also influenced by internal and external behavioral factors. (Shefrin, 2000; Warneryd, 2001). Many researchers believe that market inefficiencies can be attributed to behavioral biases, including overconfidence, representativeness bias, herding, price anchoring, and conservatism bias. Many studies have reported that overconfidence, representativeness heuristic, and herding are strongly correlated to the long term reversal effect.

2. REVIEW OF LITERATURE

In the past studies, the behaviors and attitudes among investors towards stock market were studied. The similar results demonstrated that investors usually choose short-term investments as their choice and their decisions are based on the degree of risk factors (Rajagopalan & Gurusamy, 2015; Trang & Tho, 2017; Muthumeenakshi, 2017; Manimozhy & Borah, 2018; Akhtar, Azeem, Basiouni, Teoh & Alvi, 2020; Lim & Teoh, 2021).

Furthermore, previous study had indicated that investors are well-equipped with updated investment knowledge nowadays (Manimozhy & Borah, 2018). With an increased level of knowledge about financial information and increased ability to analyze the information, investors could improve the capacity to jump into risk investment for earning high profit by managing investment efficiently.

Moreover, many studies mentioned that investment behavior influenced by nine factors, which are security, risk tolerance, lucrative, return, investment duration, periodic return, share long-term investment, futuristuc preference, returns and investment dynamics (Rajagopalan & 2015; Trang Tho, 2017: Gurusamy, & Muthumeenakshi, 2017; Manimozhy & Borah, 2018). Accordingly, it is concluded that investors compared their returns and calculated the inverse proportionality between time and return.

ISSN: 2278-4632

Vol-13, Issue-02, No.01, February 2023

On the other hand, investors' perceptions of the stock market also depend on the relationship among four demographics variables, that are age, gender, education and occupation (Rajagopalan & Gurusamy, 2015; Trang & Tho, 2017). Consequently, this indicates that demographic variables have a crucial role in the investors' approach towards the stock market.

Tiffany Hui-Kuang and Kun-Huang Huarng in [4] used neural network because of their capabilities in handling nonlinear relationship and also implement a new fuzzy time series model to improve forecasting. The fuzzy relationship is used to forecast the Taiwan stock index. In the neural network fuzzy time series model where as insample observations are used for training and outsample observations are used for forecasting. The drawback of taking all the degree of membership for training and forecasting may affect the performance of the neural network. To this take the difference between avoid observations. These reduce the range of the universe of discourse.

Akinwale adio T, Arogundade O.T and Adekoya Adebayo F in [5] examined the use of error back propagation and regression analysis to predict the untranslated and translated Nigeria Stock Market Price (NSMP). The author was used 5-j-1 network topology to adopt the five input variables. The number of hidden neurons determined the j variables during the network selection. Both the untranslated and translated statements were analyzed and compared. The Performance of translated NSMP using regression analysis or propagation was more superior error to untranslated NSMP. The result was showed on untranslated NSMP ranged for 11.3% while 2.7% for NSMP.

M. suresh Babu, N. Geethanjali and B. Sathyanarayana in [9] used the data mining techniques are able to uncover the hidden pattern, predict future trends and behaviors in financial market. Pattern matching techniques is found to be descriptive in time series analysis. In this paper, author applied ant algorithm to accommodate a flexible and dynamic pattern-

Page | 263

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matching task in time series analysis. Apart from segment size the ant to sub-time-series size affects the system performance. In this paper, the ratio was set to 1 and also the ratio reduced to obtain a better result.

Islam (2012) was more specific in defining behavioral finance by underlining the buying and selling decisions regarding stock market investors. According to Gachter et al. (2010) behavioral finance is the better understanding of the investment decisions that affects market prices which relate to human and social cognitive and emotional biases. Ritter (2003) also defined behavioral finance as behavioral factors affecting individuals' decision-making.

According to Appiah & McMahon (2002), behavioral finance is the study of how financial practitioners act and interact on financial information and the subsequent effects on markets. Pompain (2006) argued that behavioral finance tackles the behavioral factors that affect financial decisions. Alrabadi et al., 2017conducted a study that investigates the existence of behavioral biases in Amman Stock Exchange and their effect on investment performance from investor's point of view. In specific, the effects of overconfidence bias, familiarity bias, loss aversion bias. disposition bias. availability bias. representativeness bias, confirmation bias and herding bias are investigated.

Cheung, A. W. K. (2011). The paper analyzes the impacts of index inclusions and exclusions on corporate sustainable firms. The impacts are measured in terms of stock return, risk and liquidity. It is not found any strong evidence that announcement significant impact on stock return and risky. Index inclusion stocks experience a significant but temporary increase in stock return. Systematic risk shows little change after announcements. But, idiosyncratic risk is higher after announcements. Renneboog, L., Ter Horst, J., & Zhang, C. (2008). The paper provides a critical review of the literature on socially responsible investments. Particular to SRI is that both financial goals and social objectives are pursued. Over the past decade, SRI has

Vol-13, Issue-02, No.01, February 2023

experienced an explosive growth around the world reflecting the increasing awareness of investors to social, environmental, ethical and corporate governance issues.

3. METHOD OF TIME SERIES ANALYSIS

Random Walk

The stock market price changes have the same distribution and these are independent of each other. The stock prices are fluctuating and the financial status of a gambler can be modeled as random walk. Random walks can be used in many fields such as ecology, economics and psychology. The random walks explain the observed behavior of processes in these areas. This will serve as a fundamental model for the recorded of stochastic activity.

Moving Average

Moving average also called rolling average or rolling mean or running average is a type of finite impulse response filter used to analyze a set of data points by creating a series of averages of different subsets of the full data set in the stock market area. This is used to smooth out the shortterm fluctuations with the help of time series analysis data and highlight longer-term stock market trends or cycles. This will use in technical analysis of financial data such as stock price, stock returns or trading volumes.

Regression Method

This method includes many techniques for modeling and analyzing several variables, which is used to focus on the relationship between a dependent variable and one or more independent variables. Regression analysis is widely used for prediction and forecasting, it has substantial overlap with the field of machine learning. This is used to understand which among the independent variables are related to the dependent variables and explore the relationship. The regression analysis carries out the methods are linear regression, ordinary least squares regression are parametric, which is defined in terms of finite number of unknown parameters that are estimated from the data set. This model is used for

(UGC Care Group I Listed Journal)

prediction even though the moderately violated data.

ARIMA Modal

This model is fitted to the time series analysis data for predict future points in the series. These models are applied in some cases where the data show evidence of nonstationarity also where an integrated part of the model can be applied to remove the nonstationarity. ARIMA models are clearly identifiable trends such as a constant trend (i.e. zero average model), a linear trend (i.e. linear growth behavior), and a quadratic trend (i.e. quadratic growth behavior).



Fig. Methods of Prediction Techniques and Time Series Analysis.

4. RESULTS AND DISCUSSION RESEARCH FRAMEWORK

Based on a literature review of the cognitive biases, the following conceptual model has been developed. The graph below identifies the impact of psychological biases on investors' decision making.

ISSN: 2278-4632 Vol-13, Issue-02, No.01, February 2023



SOURCE OF DATA

Secondary Data; Secondary data was obtained from journals, standard finance, investor behavior in financial markets, and behavioral factors affecting investment decision making in financial markets.

Primary Data; This data was collected from investors in stock exchange by questionnaire. The questionnaire was designed and distributed to get responses from the target group of the research. Respondents were asked to furnish their opinions on the independent and dependent variables of this research, when trading in the stock market.

Population; The questionnaires will be sent to individual investors currently trading and making their own decisions at the Stock Exchange.

Sample Size; Total of 200 questionnaires was distributed to the investors currently trading in Stock Exchange.150 questionnaire was returned but only 120 questionnaires were fully completed by individual investors and used for analysis, representing a response rate of 60% percent.

Data Analysis; The data were analyzed using SPSS 26.0 on certain relevant aspects such as Reliability, Correlation, tTest and ANOVA. The Following tables indicate the analysis

Table: Impact of Anchoring Variables on theInvestment Decision Making

Factor	Variables	Mean	Std. Deviation	
	I use the stock purchase price as a	3.25	1.312	
	reference point for trade.			
	I believe that the position of the			
	year high and lowprice	2 21	1 1 9 2	
	determined the current stock price	3.31	1.162	
Anchoring Bias	movementrange.			
	I see the stock price as high if the			
	price has increased to the current	3.12	1.26	
	year high.			
	I am unlikely to buy a stock if it	2.2	1.1	
	was more expensive than last year.	0.0	1.1	
	I am likely to sell my stock after	3.51	1 111	
	the price hits recent year high.	5.51	1.111	
	I compare the current stock prices			
	with their recent year high and low	3.24	1.258	
	price to justify my stock purchase.			

Juni Khyat (UGC Care Group I Listed Journal)

In terms of anchoring, its moderate impact (mean = 3.28) suggests that there are two schools forecasting future stock prices for investment decisions. One of them depends on recent price forecasts and the other is not affected by recent prices. Price reflects the current situation in the Iranian market where many people use techniques to analyze and predict future stock price changes based on previous prices while others prefer other information instead of price, which can be information as mentioned in the past. This can be explained by the sudden and unexpected fluctuations in the stock price trend, which makes investors think of safer ways to predict stock price changes than they have experienced in the past. Hvide's (2002, p. 27) study reveals various findings that many believe today's price is determined by the previous one.

CORRELATION ANALYSIS

Table: Means, standard deviations and Pearson correlation

ISSN: 2278-4632 Vol-13, Issue-02, No.01, February 2023

Variables	Mean	SD	1	2	3	4	5	6
Herd Behavior	3.3430	0.89042	1					
Overconfidence	3.3365	0.77916	0.564**	1				
Anchoring	3.2865	0.77526	0.555**	0.624**	1			
Representativeness	3.3595	0.83784	0.594**	0.572**	0.636**	1		
Availability	3.0937	0.77127	0.536	0.612**	0.695**	0.636**	1	
Investment	3 1777	0.8511	0.014	0.24	0.013	0.035	0.008	1
Decisions	5.1777	0.0011	0.014	-0.24	-0.015	0.055	0.000	1
Note: N=121								
		\$	**p <0.01					

Current descriptive statistics and correlations among the variables. The output of the analysis demonstrates the correlation coefficient for five variables. The results show that each variable is perfectly correlated with itself because the value of the correlation coefficient is one (r = 1). Beside heuristics factor represented by overconfidence, representativeness, anchoring, and availability, herding factor also has a positive impact on investment performance. Hirshleifer and Teoh (2003, p.45) claim that overconfidence can elevate herding in security markets. The table above illustrates, herd behavior has a low but positive correlation with investment decision making (r=0.014).

Table

As shown in the Model summary in Table, R^2 value is 0.094 which means that only 9.4% of the changes in the dependent variable (IDM) are explained by the independent variables.

	Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	dfl	df2	Sig. <mark>F</mark> Change	
1	0.94ª	0.094	-0.034	0.87086	0.094	0.207	5	115	0.959	
a.	a. Predictors: (Constant), Availability_ of_information, Herd_ Behavior,									
	Overconfidence, Representativeness, Price_Anchoring									

RESEARCH FINDINGS

The study is summed up by giving all the answers for the research questions raised in the introduction part. This implies that the research objectives are done and therefore the hypotheses are tested. The following part by presenting the

(UGC Care Group I Listed Journal)

main points to answer the research hypotheses, gives the conclusions for the study by presenting the main points to answer the research hypotheses.

H₁- Overconfidence has an impact on individual investment decisions - The conclusion in regard to this hypothesis is that individual investors are moderately influenced by the overconfidence bias. Consequently, the hypothesis cannot be rejected.

H₂- Herd Behavior has an impact on individual investment decisions - The findings of the research concluded that individual investors are affected or impacted by the Herd behavior bias and that the hypothesis cannot be rejected.

H₃- Representativeness has an impact on individual investment decisions - The findings of the research concluded that individual investors are moderately influenced or impacted by the representativeness bias so, the hypothesis cannot be rejected.

H₄- Anchoring has an impact on individual investment decisions - The research found that individual investors are moderately affected by the anchoring bias; therefore the hypothesis cannot be rejected.

H₅- Availability has an impact on individual investment decisions - The findings of the research concluded that individual investors are moderately affected or impacted by the Availability bias therefore, the hypothesis cannot be rejected.

5. CONCLUSION

This research study concludes that the decisionmaking process of investors could be affected by many behavioral factors. These behavioral factors' impact on decision making is varied to different degrees. The current study also checks the relationship of investment decision making with behavioral factors (Overconfidence, Herd behavior, Availability, Representativeness bias, and Anchoring). The response from the sample presents that all behavioral factors make an

Vol-13, Issue-02, No.01, February 2023

influence on the decision-making process of investors.

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(UGC Care Group I Listed Journal)

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