EXPLORING THE DYNAMICS OF INDIVIDUAL INVESTOR'S BEHAVIOR: A CASE OF PAKISTAN STOCK EXCHANGE

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ABSTRACT

This research endeavor was targeted on individual investor's (Ind. Inv) behavior in response to considerable eight factors comprised of 34 variables including life stage profiles that is the uniqueness of the study. The study analyzed the primary data through valid tests while data have been collected with the help of 160 sample questionnaires out of 250 of the total population. The study concludes that individual investors are

highly valuing dividends, self-perception, corporate earnings, stock market performance and accumulated wealth at accumulation stage whereas financial statement, historical performance and broker opinion are moderately valued. There is least attention carried by the factors like local operation, friend's suggestion and 80 plus years of age of the individual investors.

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Key Words: Individual investor behavior, PSX, Life stage profile, investor psychology, BF

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1. INTRODUCTION

The traditional approach of finance, either the Bayese's Law or subjective expected utility (SEU), are simple as well as not up to the mark in order to easily understand the basic facts about the individual trading behavior of the shareholder. Therefore, to overcome these difficulties, another approach has been recently emerged, called behavioral finance (BF), while it makes analysis the happenings as a result of relaxing one or both of the tents that bring about individual reasonableness (Barberis & Thaler, 2005). Similarly, BF addressing question like why always a discrepancy exists between the individuals expected and actual decisions. Another activity performs by BF is not only to assists as well as to answer in-depth the queries about the reasons of market inefficiency. The behavior of market investor is taken from making decisions in light of principles of psychology about making decisions that why general public trade securities. BF focuses at answer the question that to make investment decision what is the procedure of understanding and dealing with information by the investors. Similarly, the focus of the BF is on investment that results in different market concerns.

Similarly, keeping in view the reality of the primary interest of any type of investors around the world, it is clear that investors are always opting for choices that have the potential of earnings and wealth maximization but it has also attached the possibility of risk while investors are willing to take risk (Neumann & Morgenstern, 1947). The well-known utility theory declares that individual investors pick the combination of those investments which have high potential of expected utility that is gauged expected return with lesser uncertainties or damages, and it is also the nature of the humans around the world, subject to the cultural or regional minor changes but the main objective is the same. On the contra, economic theory is not outfitting to the decisions of investors but in its place, it is surrounded around the macroeconomic models that detailed the behavior of the mega market (Nagy & Obenberger 1994). Further, the study of Hoffmann, Eije, & Jager (2006), declared that because of insufficient information and less knowhow of technical models, the investor has no choice but to be rational except their stored knowledge and past experience which is also limited. Therefore, their decision is based on these limited inputs which may or may not be suitable to get maximum returns to secure their investments. The models developed by Neumann and Morgenstern (1947) are limited in its nature therefore; BF is an in-depth study by critically examined and logically discussed behavioral aspects of investment decisions in a broader sense. Likewise, BF covers the queries such as how investors gain, process, and translate the information for making their investment decisions. It is also a means to check investor behavior that causes diverse market blurs and uncertainties. According to Al-Tamimi (2006), It is a speedily on the rise field having insisting on the behavior of psychology that is in practice by the financial field experts.

Majority of the preceding research studies have focused their eyes on the behavioral aspects of institutional investor, like the popular as well as the closer research work has been conducted, from time to time, by the (Baker & Haslem, 1974; Prowse, 1990; Nagy & Obenberger, 1994; Venter, 2006). The most important aspect of this study is the individual investor behavior regarding their investment decision and what are the influencers that lead these Individual investors to make the buy or sell decision. Furthermore, this study is focused on those factors that are not considered in previous studies on the investment behavior of the individual investors, thus, it will provide very critical review of the various behavioral aspects of the individual investors which will help out various stakeholders in their said area of interest. Similarly, another uniqueness of this study is to include another important approach of “Life stage profiles” presented by Hoboken, NJ: John Wiley & Sons Inc., (2007), which is as follows:

Stage	Ages	Investment Goals
Starting	25–40	Eliminating debt Saving for capital expenditures Investing in employee benefits
Accumulating	40–65	Managing debt Diversifying and building equity Saving for retirement and estate planning
Spending	65–80	Relying on retirement income Reducing investment risks Preserving value; preserving or reinvesting capital
Gifting	80+	Eliminating risk Distributing wealth

Figure 1: Life Stage Profiles

2. LITERATURE REVIEW

According to the study of Akhtar et al. most of the individual investor at first option, firmly wishes to have cash dividend. Likewise, findings suggest that majority of individual investor hold a commendable part of their dividend income in their pockets while the percentage of re-investors of dividend gain is very low, which are in line with the Investigation of various dividend theories. Further, investors have a secondary option of stock dividend as well, when they do not get cash dividend. So, in any condition that is, the cash or stock dividend, the investor have a firm desire to get one of them even at the cost of borrowing by the company. In the view of Baker and Haslem (1974) who declared that the major types of investors are categorized in to two types, one who likes capital gain while others wish to get dividends. Further, it is interpreted that Investors opt for dividends were old age, women and risk reluctant and do not want considerable increase in stock price. While future price appreciation is the choice of the second category who want to sacrifice current dividends for wealth maximization. In the study of Hodge, (2003) concluded the investors’ self-perception of income quality, auditor autonomy, and the competence of audited financial reports. They further pointed out lower self-thinking of income quality is connected with higher reliability on a firm’s audited financial arguments as well as necessary evaluation of those arguments when making investment decisions. Simply one can define that all the publicly available information is reflected in the stock prices thus, impossibility is there to systematically achieve abnormal returns using such information, is known as Efficient Market Hypothesis (EMH). According to the concept presented by Winsen (1976), which relates to the question that is there any connection between investor behavior and the information flow. The result is in line with the opinion that certain publicly available data items is misinterpret and/or misuse by the investors, that shows that something is wrong in their

behavior in terms of an adequate function of information flowing in the stock exchange. Furthermore, Epstein (1994) examined individual investors' demand for social information and found the good organization of annual reports to corporate investors. Additionally, the study concluded a strong demand for details about product safety and quality, and about the company's ecological activities both internal as well as external environmental activities.

According to the comparison made by Baker, Hargrove, and Haslem (1977) it is suggested a positive relationship found between threat and total reward but it is lower in intensity against the association between risk and price increase in the stocks whereas It has been condensed by the inverse relationship of risk-dividend. Likewise, under the same umbrella in the given area of interest it is clear that total return is the outcome of accumulating dividend and capital gain, thus, a direct association is found between risk & returns yet the post risk-dividend relationship that is the indication of the positive connectivity between risk and predictable return caused by the influence of capital gain in investor prospects of total income. Similarly, it can be interpreted that lesser risk takers wish to get lofty dividends whereas higher risk lovers preferred higher capital gains in expansion stocks. As per the results of Maditinos et al. (2007), most of the Greek investors lay their considerable dependency fundamental and technical analysis while lesser dependence on portfolio analysis. Astonishingly, the joint utilization fundamental and technical analyses are rationally well-liked among various categories of users. But in terms of time slots, variations exist in the pace of fundamental analysis being viewed most noteworthy model in the long-run while technical analysis suits in the short-run. Similarly, in terms of popularity, Portfolio analysis stood at first in the long-run however ranks in last position. These findings are attractive and do not deviate from theory as well as the results of the preceding investigation. Similarly, Jager, and Hoffmann, Eije, (2006) studied the investor's behavior in terms of their requirements and compliance. The findings show that instead of fulfilling the financial needs, investors also trying to meet the needs that socially fitted. Furthermore, Hoffmann, et al. (2006) also examined that individual investor prefers monetary benefits. So, the study pursued an "extended" utility approach accompanying favors behavioral finance, which describes that funds investment focus on both utilization of resources as well as expressive advantages. According to the description provided by John L. Maginn, 2007, beyond age and investment stage, there are factors which affects risk tolerance and investment approaches are affected whereas, researches have concluded that the source and volume of capital can be a factor in attitudes and it can affect the decision of the investors toward investment, and hence as per the empirical research studies in the same area of interest, one cannot ignore such variety of factors that is discussed in above paragraph that is supporting this area actually. Furthermore, the findings of Warren, Stevens, and McConkey (1990), declared that demographics is taken for market segmentation in terms of financial and economic services while on the contra side, lifestyle characteristics assist and pointed out individual investor's financial needs more specifically. Additionally, lifestyle proportion also contributing in distinction between the investment's choices of the investors like stocks and bonds.

3. RESEARCH METHODS

The study is based on primary data; thus, a questionnaire is developed in order to gather data for onward data analysis. Total 250 questionnaires were distributed among the individual investors while 160 of them responded accordingly. For the purpose of testing the reliability of the instrument adopted in the study, Cronbach Alpha is applied. Which quantify the consistency of the diverse sections and based on estimating the disparity in scores of dissimilar factors caused by the occurrence of chance or random errors (Al- Tamimi, 2006). A good and acceptable indication of construct reliability means a coefficient exceeding or exact value of 0.5. similarly, on the whole significance level of Cronbach's alpha is 0.70 exhibiting a reliable instrument while number of items is 37.

The study is based on the convenient sampling that is tailored to the ease of the access and response of the respondents. The evaluation was centered on the investment decision of the investors in equity instruments. Variables of the study were placed before the respondents to decide about the variables that whether each variable was (1) very important in terms of taking investment decision item ("Act On"), (2) secondary item ("Consider") or (3) or it is not concerned to investment decision ("No Influence").

Table 1 Variables of the Study

VARIABLES	
1) Anticipated Income	2) Anticipated Dividends
3) Diversity Need	4) Comparative Monetary requirements
5) Starting	6) Accumulating
7) Spending	8) Gifting
9) Historical stock Performance	10) Annual Reports
11) Demand for Non-Stock Investments	12) Existing Economic indices
13) Risk Mitigation	14) Valuation techniques
15) Prior Needs of Funds	16) Brokers advice
17) Tax cost	18) Institutional share
19) Stock Market Performance	20) Current Price volatility
21) Instinct about Economy	22) Relative pressure on Opinions
23) Valued Ethics in Firm	24) Exchange registration
25) Peer pressure	26) Domestic Operations
27) Global Operations	28) Ecological data
29) You/Yourself	30) Existing financial worth
31) Perception about Firm's Products and Services	32) Historical Performance of Investor's Stock Portfolio
33) Status of Financial Statements	34) Share Price affordability

Table 2 KMO and Bartlett Tests (BT)

KMO and Bartlett's Test		
KMO Measure of Sampling Adequacy (MSA).		0.692
Bartlett's Test of Sphericity	Approx. Chi-Square	1612.345
	Degree of freedom	159
	Significance	0.000

The table above shows results KMO and Bartlett's Test for this study that concludes the values of 0.692, 1612.345, 159, and 0.000 for KMO measure of sampling adequacy, approx. Chi-Square, degree of freedom, and significance level respectively.

Factors of the Study

- Social relevance and Image
- Life Stage Profiles
- Stock Performance
- Peer Pressure
- Evaluation
- Classic

- Stockbroker Influence
- Accounting Information

4. RESULTS AND DISCUSSION

This endeavor contains noteworthy variables after identifying the frequency distributions which have considerable effect on the behavior of individual investor. Therefore, the table of variables lists 34 variables in terms of the frequencies for this study which influences the behavior of the respondents and ultimately their investment behavior. Further, the life stage profiles have more considerations in eyes of the respondents and comparatively more self-dependent against the choice of their stocks while considering the guidance of their stockbrokers.

The table above categorizes variables in context of the frequency distribution of those having minimum effect on the investor's behavior. So far, factor one and its dimensions are not important to investors.

This study also focuses to identify most vital variables in the eyes of the investors from same nature of class or not. Similarly, varimax Algorithm of Orthogonal Rotation is adopted and with the help of factor analysis the underlying constructs is determined that denote a blend of investor concerns. The removal of two variables has taken place caused by their opposing representation values of MSA; extended form of KMO), had been below 0.5 (i.e., 0.39 & 0.4.00). The deletion of these variables also enhanced KMO computation MSA) is 0.700 - 0.778 and BT is not accepted that indicates that the matrix of correlation is not an identity matrix and hence the inter variables underlying structure exist.

Table 3 Rotated Component Matrix (RCM) identifying eight factors

	RCM							
	Component							
	1	2	3	4	5	6	7	8
Domestic Operations	0.726							
Global Operations	0.716							
Institutional share	0.669							
Ecological Data	0.639							
Valued Ethics in Firm	0.500							
Tax Cost	0.490			.455				
Comparative Monetary Needs								
Starting (25-40 years of age)		.794						
Accumulating (41-65 years of age)		.715						
Spending (66-80 years of age)		.632						
Gifting (80 plus of age)		.591						
Historical Performance of Investors Stock Portfolio			.780					
Historical Stock Performance			.694					
current Price volatility Of Firms Stock			.675					
Anticipated Performance of Stock Market			.635					
Instinct about Economy			.533					
existing Financial Status			.70					
Status of Financial Statements			.71					
Exchange Registration			.63					
Annual Reports			.590					
Expected Income								
Peer Pressure				.717				
Demand for Non-Stock Investments				.677				
Valuation Techniques					.692			

Existing Economic Indices					.690			
Prior Need of Funds					-.601			
Diversity Needs								
Share Price Affordability					.718			
Risk Mitigation							.558	
Expected Dividends							.476	
Broker Advice								.810
Perception about Firms Products And Services								.451

Table 2 shows eight factors or components of the study that have been extracted by the “Principal Components” taking out method along with brink of Eigen value (E.V) of 1. The first Component of the study explains 11% variation while E.V stood at 3.2, the second factor shows, 10.00%, 2.8, while component 3rd has 10.2% and 2.709, 4th factor has 7.7% variation and 2.31 E.V, 5th factor has 7.5% variance with E.V of 2.098, 6th factor stood at 6.2% along with 1.71 E.V, 7th factor stood at 5.4% variation and 1.3 E.V and lastly eight factor stood at 9.00% with 3.9 E.V. The table above also explains the RCM that point outs eight factors have more factor loadings of every variable in each component.

Table 4 Frequency Distribution of Variables that considerably effect Individual Investor Behavior

Variables	Frequency	Percentages (%)
Expected dividend	140	87.80%
You/Yourself	120	80.1%
Expected Corporate Earnings	115	75.1%
Expected Stock Market Performance	102	67.8%
Accumulating (41-65 years of age)	110	65.7%
Current Price Volatility of Firm's Stock	90	53.9%
Affordability of Share Price	88	51.8%
Current financial position	80	47.1%
Spending (65-80 years of age)	78	45.5%
Status of Financial Statements	64	41.8%
Historical Stock Performance	64	41.8%
Broker Advice	63	41.3%
present Economic Indices	62	40.5%
prior Need of funds	61	39.5%
Risk Mitigation	57	37.3%
Tax Cost	50	35%
instinct on Economy	48	34.4%
Starting (25-40 years of age)	46	26.8%
Comparative Financial Needs	40	26.1%
Institutional share	35	22.9%
Annual Reports	31	20.3%
Exchange Registration	31	20.3%
Diversity needs	34	20%
Perception about Firm's Products and Services	27	17.6%
Global Operations	25	17%
Demand for Non-Stock Investments	21	13.7%
Affordable Share Price	25	15.5%
Peer pressure	13	8.5%
Ecological Data	12	7.8%
Valued Ethics in Firms	12	7.5%
Local Operations	11	6.5%
Friend or Coworker Recommendation	10	6.2%
Use of Valuation Equations	9	5.9%
Gifting (80+ years of age)	8	5.4%

The table above shows the frequency distribution response of different individual investors with respect to items ordered from highest for expected dividend that is 140 times with a percentage of 87.7 and lowest frequency distribution of 8 and 5.4% for item of gifting age.

5. CONCLUSION

The research study concludes from its outcomes that individual investors are highly valuing dividends, self-perception, corporate earnings, stock market performance and accumulated wealth at accumulation stage whereas financial statement, historical performance and broker opinion are moderately valued. There is least attention carried by the factors like local operation, friend's suggestion and 80 plus years of age of the individual investors. It is, further, recommended to the researchers to include other unaddressed factors such as technical analysis and fundamental analysis in their future research studies. The study is limited to the time frame, variables of interest, sample size, target audience and resources constraints.

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