

## Factors Affecting Investors' Perception towards Investment in Stock Market in Bangladesh: A Study on Investor's of Khulna City

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### Abstract

**Purpose:** This study aimed to identify the investors' perceptions towards investment decision in stock market of Bangladesh and to compare the identified influential factors with respect to the demographic characteristics of the investors.

**Methodology:** Data have been collected from 160 investors of Dhaka Stock Exchange through structured closed-ended questionnaire designed with 5 point Likert scale having 25 variables. Factor analysis has been used to identify 7 core factors: internal, informational, economic, individual, strength and affordability, goodwill and external factor that are affecting investor's preferences. Independent Samples t-test, ANOVA and Welch test have been used to identify gender, age, education and income wise differences.

**Findings:** The study found that there were no significance differences in 24 out of 25 variables in terms of gender, 20 out of 25 variables in terms of age, 10 out of 25 variables in terms of education and 23 out of 25 variables in terms of occupation of the investors.

**Value:** Listed companies, authorities and concerned parties in Securities and Exchange Commission and government will be benefited from this study.

**Key words:** Age, Education, Gender, Income, Investment.

### Background

This study aims to expand knowledge about key factors that affects investment behavior and the ways these factors impact on trading decision making process among people of different age groups, educational background, occupation and income level. The capital market is mainly symbolized through the strong existence of the stock exchange that facilitates new and old issues of securities by the listed firms. The stock market is one of the most important sources for companies to raise money. It is a symbol of the nation's economy and strength. A country whose stock market is sound and going up is considered to be in great economic status. This is one of the reasons why government, industries and financial institutions always keep track of the stock market trends. Investment is typically referred by the allocation of saving funds to the opportunities with an expected return in future. Investor's have adequate knowledge to invest their funds. The primary objective of each investor is to minimize the risk and maximize the return from investment. For investors, the most important factors in their investment decision are crucial because this would shape their future financial plans. For companies, identifying the most important factors on investor's behavior would affect the required legislation's and additional procedures needed in order to convince investor's decisions. There are various factors that affects on the investors decision. Such factors are market statistics, earning per share, dividend payout ratio, price earnings ratio, net asset value, net profit after tax, bonus shares, market price movement, turnover, marketability, dividend announcement and payment, stockholders image, ownership structure, management team or boards of directors which affects investor decisions. Other factors are friends and family suggestions, environmental influence, political risk, government rules and regulations, the impact of information technology and market rumor.

### Objectives

The main objective of this study is to identify and evaluate the factors that influence investor's perception towards investment in stock market in Bangladesh. The secondary objectives are to identify the demographic profile of the

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investors and their perception regarding the identified factors, to determine mostly preferred factors and to examine whether the preference is affected by their gender, age, level of education, occupation and level of income.

### **Literature Review**

The stock market is an integral part of a country's economy. Share market considered as a place of investment by the investors of different level. At present the third world's share market is full of uncertainty and risks. It is well known and recognized fact that savings and investment is a useful factor in development and growth of economy. The economic status of our country has opened up doors through many development programs in the capital market as well as money market with the help of financial system and financial institutions or intermediaries. This financial institutions foster savings and channel them to their most efficient use. There are especially two type investors in our country: institutional investor and small investor. Institutional investors include mutual fund, merchant banks, provident fund companies, insurance companies and investment corporations. In order to study the behavior a review of literature was done to develop the concept and understand what had been done earlier. Stock market performance is not simply the result of intangible characteristics but also due to the emotions that are still baffling to the analysts. According to behavioral finance, it is assumed that investor's market behavior derives from psychological principles of decision making to explain why people buy or sell stocks. Behavioral finance is a new paradigm of finance theory, which seeks to understand and predict systematic financial market implications of psychological decision making (Barnwell & Gruder, 1988). (Shefrin, 1999) has defined behavioral finance as a rapidly growing area that deals with influence of psychology on the behavior of financial practitioners. (Barnwell & Gruder, 1988) suggests the use of psychographics as the basis of determining an individual financial services needs and takes one closer to the truth from the customer's perspective of need to build a marketing program. Empirical evidence in the behavioral finance literature show that individuals do not behave rationally. (Barberis & Thaler, 2003) provide a good summary of models that try to explain the equity premium puzzle, excess volatility, excessive trading and stock return predictability using both prospect theory of (Kahneman & Tversky, 1979) and beliefs. (Daniel, 2002) support the view that markets are not efficient and investor biases affect security prices substantially.

(Kahneman & Tversky, 1972) found that there is a lack of reconciliation between the normative and the descriptive theory of choices. Normative analysis which is used to predict and explain actual behavior is supported by three statements. Firstly, people are effective in pursuing their goals. Secondly, competition favors rational individuals and organizations. Finally, an intuitive appeal of the axioms of rational choice makes it plausible that the theory derived from these axioms support the acceptable account of choice behavior. (Rajarajan, 2000) revealed that there is an association between the lifestyle clusters investment and related characteristics. (Szyzka, 2011) in his study on efficient market hypothesis to behavioral finance analyzed how investor's psychology changes the vision of financial markets. He found that investors are not always able to correctly value the utility of decision alternatives, cannot update and estimate probability and events and do not diversify properly. Recent research shows a persistent effect of investor psychology on trading and risk taking behavior (Barber & Odean, 2001). A key finding from such studies is that individual investors have difficulty learning from their experiences, and if they learn, this is a slow process (Gervais & Odean, 2001). Other scholars revealed that many investors have lack of data analysis and interpretation skills (Shiller, 1993); (Kahneman & Tversky, 1972). In addition, risk propensity and risk perception are driven by past experience. Only a few researchers are worked with demographic factors of investors, where demographic variables are explored as insignificant (Rashid & Nishat, 2009). Moreover, individual investors often fail to update their behavior to match their experiences and are relatively unaware of their return performance (Glaser & Weber, 2007). Thus, it seems that at least during tranquil times, investor's experiences have little or no impact on their perceptions and behaviors.

In the securities market, whether the primary or the secondary market, the price of equity is significantly influenced by a number of factors which include book value of the firm, dividend per share, earnings per share, price earnings ratio and dividend cover (Gompers, Ishii & Metrick, 2001). The most basic factors that influence price of equity share are demand and supply factors. If most people start buying then prices move up and if people start selling prices go down. Government policies, firms and industry's performance and potentials have effects on demand

behavior of investor's, both in the primary and secondary markets. The factors affecting the price of an equity share can be viewed from the macro and micro economic perspectives. Macro economic factors include politics, general conditions such how the economy is performing, government regulations etc. Then there may be other factors like demand and supply conditions which can be influenced by the performance of the company. In Bangladesh, responses of investors to capital market are overwhelming. Each investor can follow different pattern in order to invest in securities. Theoretical research show that stock market development might boost economic growth and empirical evidence tends to provide some support to this ascertain. (Levine & Zervos, 1998), for instance find that stock market development plays an important role in predicting future economic growth. A number of theories have been developed to explain how and why people make decisions when they spend, invest, save and borrow money (Belsky & Gilovich, 1999), and the factors that influence shares investment decision making. Individual investor's behavior is influenced by issues like availability of information. Investors are more likely to base their investment choices on information received from objective or scientific sources (Shiller, 2000).

Investing in the stock market involves certain consideration to the risk normally associated with making investment in securities. There can be no assurances that the fund will achieve its investment objectives. The review from the theory of planned behavior (Ajzen, 1985, 1991) investor is basically either risk takers or averters. In this case they buy those stocks that grab their attention (Berbar, 2006), tend to sell winner and buy losers. High risk tolerant investors will constitute a portfolio of relatively high risk and low risk tolerant investors will constitute low risk securities portfolio (Corter & Chen, 2006). Risk propensity and risk perception of the investor are influenced by their past experience. (Kathleen, 2005), indicates that investors risk tolerance increases if they have successful past experience and decrease in case of having unsuccessful experience of past (Skitin & Pablo, 1992). Extreme events such as the 2008-2009 financial crises, however, may have a strong impact on individual investors because of their salience (Kahneman & Tversky, 1972). (Malmendier & Nagel, 2011), for example suggest that dramatic experiences, such as the great depression of the 1930s, can have a permanent impact on investor's perceptions and risk taking behavior. (Thaler & Johnson, 1990) as well as (Barberis, 2013) find that experiencing a number of consecutive losses reduces investors subsequent willingness to take risks. As the financial crisis, combines an unexpected and negative shock to investor's wealth as well as their returns with an uncertain and volatile market environment.

There are number of studies have been carried out to determine the pattern of institutional investor but studies dealing with investment perception of certain investor are relatively low. The theory of planned behavior is a theory about the link between attitudes and behavior. It was proposed by (Ajzen, 1985, 1991) as an extension of reasoned action. Investments based on perfect predictions, completely flexible prices and complete knowledge of investment decision of other players in the market, are increasingly unrealistic in today's global financial market. (Swarup, 2003) studied on the decisions taken by the investors while investing in the primary markets. In her study she indicated that investors give importance to their own analysis as compared to their broker's advice. (Wael, 2004) examined the market behavior around the times of annual earnings announcements made in the Paris Bourse to study both the informational role of accounting numbers and the intraday speed of adjustment of stock prices to new information. In their paper in investment decision making revealed that the class of investors with growing age develops maturity and experience for making decisions about the usage of their surplus and available funds in the light of overall economic needs of a family. (Waren et. al., 1990) and (Rajarajan, 2000) determine on individual investment selections (e.g. stocks, bonds, real estate) stranded on lifestyle and demographic attributes. (Sultana, 2010) concludes that the individual investor still prefers to invest in financial products which give risk free returns. This confirms that investors even if they are of high income, well educated, salaried, independent are conservative investors prefer to play safe. Market price movement always mention as a key consideration before any decision to invest within financial markets.

Traditional financial theories (Sharpe, 1964); (Ingersoll, 1987) & (Fama, 1970) typically consider that the theoretical price can be derived from fundamental value. On the contrary, Shiller (2000) points out that "in real markets, new theories are created to justify the current stock prices". The recent history of stock prices movement has large impact

on the future investment situation. (Mohanta & Debashish, 2011) studied that investors invest in different investment avenues for fulfilling financial, social and psychological need. While selecting any financial avenue they also expect other type of benefits like safety and security, getting periodic return or dividends, high capital gain, secured future, liquidity, easy purchase, tax benefit and meeting future contingency. Other factors that are considered by individual investors during investment include: firm's size, age, reputation and status, ownership structure, earnings per share, bonus, firm's financial statements, dividend per share, expected dividend, past performance of the firm, reliability, broker's recommendation, family and friend's opinion, market rumor, affordability of share price, net asset value per share, market price movement, reputation of company's board of directors, intention for diversification and to get rich quick (Hossain & Nasrin, 2012); (Obamuyi, 2013); (Akhter & Ahmed, 2013); (Bashir et. al., 2013).

### **An Overview of Bangladesh Stock Market**

East Pakistan Stock Exchange Association Ltd. Was formed on 28<sup>th</sup> April 1954 as public company. It was renamed as East Pakistan Stock Exchange Ltd. in 1962 and as Dhaka Stock Exchange Ltd. on 14 May 1964. The paid up capital of the exchange now stood at Tk. 4, 60,000 divided into 230 shares of Tk. 2,000 each. Although incorporated in 1954, formal trading was started in 1956 at Narayanganj after obtaining the certificates of commencement of business and in 1958 it was shifted to Dhaka. The Dhaka Stock Exchange (DSE) is registered as a Public Limited Company and its activities are regulated by its Articles of Association rules and regulations and bye-laws along with the Securities and Exchange Ordinance, 1969, Companies Act 1994 & Securities & Exchange Commission Act, 1993. The automated trading was initiated in 10 August 1998 and started on 1 January 2001. A central securities depository System was initiated in 24 January 2004.

Main functions of the Dhaka Stock Exchange are listing of companies, settlement of trading, providing of a screen based automated trading of listed securities, market administration, surveillance, control, production of a monthly review publication, granting of approval to transactions, monitoring of activities of listed companies to ensure that they stay in line with listing regulations, investigation of grievances, announcement of information about listed companies and maintenance and use of the investors' protection fund. There are 531 listed companies trading in DSE. Those are: bank (30), cement (7), ceramics (5), corporate bond (3), debenture (8), engineering (25), financial institution (23), food & allied (18), fuel and power (15), insurance (46), IT (6), jute (3), miscellaneous (9), mutual fund (41), paper & printing (1), pharmaceutical & chemicals (25), services & real state (3), tannery (5), telecommunication (2), textile (32), travel & leisure (3) and treasury bond (221).

Like other capital markets, DSE can also be categorized into two parts: primary and secondary market. Besides, there are four types of markets in the system, namely: public, spot, block and odd lot market. DSE also has a market information system that is responsible for collecting real-time market information, collecting company information and generating market statistics. DSE Automated Trading System (HP Non-Stop S7804) is running on fault tolerant, high available, scalable and maintainable Mainframe Server. The entire Member Server Applications (MSA) is connected with Non-Stop HP S-Series Server through either DSE LAN (local area network) *or* WAN (wide area network) connectivity. The application, which runs in DSE for trading, is called TESA (The Electronic Securities Architecture) having two parts: MSA (Member's Server Application) & TWS (Trader workstation).

Most of the countries' stock markets have confronted the taste of collapse at least once. There were two major collapses in the stock market of Bangladesh: during 1996 and 2010. In 1996 more than 500 crore was transferred outside the country. Paper based share certificate, lack of knowledge of the retail investors, manipulation, inside trading and greed are some of the main reasons of the collapse. The main catalysts for that collapse were the shrewd manipulators from both home and abroad (Mohiuddin, 2010). During 2010 collapse, institutional investors played a major role. Investing more than ascribed amount as per rules, lack of surveillances, speculation and manipulation through omnibus accounts, speculative raise of price by gamblers, lack of sufficient knowledge of the small investors and free entrance of the black money caused collapse.

In their study (Rahman & Hossain, 2006) suggested that DSE is not efficient in weak-form. They also explained that the absorption of good and bad news or any other price forming information may take late effect of share price. However, though DSE deviated from weak form efficient market hypothesis, but it cannot be defined inefficient, because market efficiency changes over time and capital market is subject to be tested continuously. Furthermore, (Uddin & Khoda, 2009) provided evidence that the Dhaka Stock exchange is not efficient even in weak form because of its poor institutional infrastructure, weak regulatory framework, lack of supervision, and a lack of accountability, poor corporate governance, slow development of the market infrastructure, and low level of capacity of major market players and lack of transparency of market transactions.

### **Methodology**

For this study, primary data have been collected through personal interviews of 160 respondents with a structured closed-ended questionnaire who have been selected using convenience sampling method. All the respondents have investment in Dhaka stock exchange but live in Khulna. They have been selected from the brokerage houses operating in Khulna city including Investment Corporation of Bangladesh, Associate Capital Limited, The Royal Capitals, The Island Securities, and Mercantile Brokerage House. Secondary data from previous study, annual report and other feasible documents related with investor perception have also been analyzed. The questionnaire has been designed with 5 point likert scale (1= strongly disagree to 5= strongly agree) having two parts: demographic quaries and investment dimensions regarding 25 variables- each indicating investor's perception towards investment in stock market. Demographic profile of the investors has been provided in table 1.

**Table 1: Respondent's Profile**

<b>Demographic Group</b>	<b>Classes</b>	<b>Frequency</b>	<b>Percentage</b>
Gender	Male	126	78.8
	Female	34	21.2
Age	Below 25 years	20	12.5
	25 to 40 years	42	26.25
	41 to 55 years	58	36.25
	Above 55 years	40	25.0
Educational Level	S.S.C	2	1.2
	H.S.C	11	6.9
	Graduation	101	63.1
	Post Graduation	46	28.8
Occupation	Student	17	10.6
	Service	68	42.5
	Business	37	23.1
	Others	38	23.8
Monthly Income	Below 10000 tk	22	13.75
	10000 to 25000 tk	32	20.0
	25000 to 50000 tk	62	38.75
	Above 50000 tk	44	27.5

Factor analysis has been applied to identify underlying latent factors while ANOVA and Independent Sample t-test have been employed to analyze differences in preferences in terms of demographic factors of investors. SPSS 16.0 has been used for these analyses.

### Hypothesis Testing

According to the demographic variables, the hypotheses have been developed and tested in this study. In case of “Gender” there are only two groups where an Independent Sample T-test is justified. In case of “Age Group”, “Occupation Group”, “Education Group” & “Income Group” there are four groups in each and an ANOVA test is justified there. The null hypotheses are,

**H<sub>1</sub>:** There is no significant association between the gender of the investor & their investment perception.

**H<sub>2</sub>:** There is no significant association between the age of the investor & their investment perception.

**H<sub>3</sub>:** There is no significant association between the educational level of the investor & their investment perception.

**H<sub>4</sub>:** There is no significant difference between the occupation of the investor & their investment perception.

### Analysis & Interpretation

In this study, to reduce primarily identified 25 variables into lower number of manageable variables (principle factors), factors analysis technique has been used.

**Results of Factor Analysis:** The results of analysis are provided in **table 2**. Here, the approximate chi-square statistic is 1409.282 with 300 degree of freedom at the 0.000 level of significance. The value of the KMO statistic (0.721) is also large, ( $p>0.5$ ). **Table 2** shows the appropriateness of factor analysis and also suggests further investigation using principle components analysis method.

**Table 2: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.721
Bartlett's Test of Sphericity	Approx. Chi-Square	1409.282
	Df	300
	Sig.	.000

From the result of factor analysis, only factors with eigenvalues greater than 1.0 are retained and the other factors are excluded. An eigenvalue represents the amount of variance associated with the factors. It is recommended that the factors extracted should account for at least 60% of the variance.

**Table 3: Factor Analysis**

	Factor Loading	Eigenvalue	% of variance	Cumulative %
Factor 1 (Fundamental)		5.076	20.306	20.306
Earnings per share	.743			
Price earnings ratio	.747			
Market price movement	.765			
Factor 2 (Internal & Regulatory)		2.882	11.527	31.832
Net assets value	.746			
Net profit after tax	.680			
Dividend pays out ratio	.741			
Security exchange commission regulations	.410			
Factor3 (Economical & Informational)		2.234	8.938	40.770
Friends, family & peers	.577			
Brokers recommendation	.399			
Market statistics	.447			
Inflation	.484			
Decline in bank & government interest rate	.739			

Information technology	.452			
Factor 4 (Strength & Affordability)		1.775	7.101	47.871
Marketability	.453			
Liquidity position	.849			
Debt asset ratio	.746			
Company turnover	.640			
Factor 5 (Individual Benefit)		1.594	6.375	54.247
Dividend	.763			
Dividend payment pattern	.491			
Bonus shares	.811			
Factor 6 (Goodwill)		1.306	5.226	59.473
Image or reputation of company	.682			
Current ownership	.617			
Board of directors	.755			
Factor 7 (External)		1.098	4.391	63.863
Political instability	.798			
Market rumor	.652			

As represented in **table 3**, Factor 1 has been labeled as Fundamental factor with variables V4 (Earnings per share), V6 (Price earnings ratio) and V8 (Market price movement). This factor accounts for 20.306% of the total variance. Factor 2 has been labeled as Internal and Regulatory factor with V5 (Net assets value), V7 (Net profit after tax), V9 (Dividend pays out ratio) and V17 (Security exchange commission regulations) which accounts for 11.527% of the total variance. Factor 3 accounts for 8.938% of the total variance with V1 (Friends, family & peers), V2 (Brokers recommendation), V3 (Market statistics), V18 (Inflation), V19 (Decline in bank & government interest rate) and V23 (Information technology) and has been labeled as Economical & Informational factor. Factor 4 has been referred as Strength and Affordability factor with V10 (Marketability), V11 (Liquidity position), V12 (Debt asset ratio) and V13 (Company turnover) and accounts for 7.101% of the total variance. Factor 5 being related with V14 (Dividend), V15 (Dividend payment pattern) and V16 (Bonus shares) accounts for 6.375% of the total variance and has been labeled as Individual Benefit factor. Factor 6 is connected with V20 (Image or reputation of company), V21 (Current ownership) and V22 (Board of directors) and labeled as Goodwill factor. This factor accounts for 5.226% of the total variance. Finally, Factor 7 has been labeled as External factor with V24 (Political instability) and V25 (Market rumor) that accounts for 4.391% of the total variance. All together these seven factors accounted for 63.863% of the variance.

**The Independent Samples T-Test for Gender:** The Independent Samples t-test has been used to see whether there is any significant association between the gender of the investor & their investment perception.

**Table 4: Interdependent Sample t-test**

	Mean Value		Levene's Test for Equality of Variances		t-test for Equality of Means		
	Male	Female	F	Sig.	t	df	Sig. (2-tailed)
v1: Friends, family & peers	4.44	4.71	6.600	.011	-2.112	158	.038
v2: Brokers recommendation	4.22	4.21	.891	.347	.092	158	.927
v3: Market statistics	4.10	4.12	.783	.378	-.093	158	.926

v4: Earnings per share	3.99	4.06	2.038	.155	-.416	158	.678
v5: Net assets value	3.49	3.44	.005	.941	.270	158	.787
v6: Price earnings ratio	3.93	3.62	.618	.433	1.719	158	.088
v7: Net profit after tax	3.78	3.71	.003	.954	.386	158	.700
v8: Market price movement	4.09	4.21	2.449	.120	-.717	158	.474
v9: Dividend payout ratio	3.27	3.35	.009	.925	-.396	158	.693
v10: Marketability	4.28	4.21	.035	.852	.397	158	.692
v11: Liquidity position	3.80	3.62	.269	.605	.970	158	.333
v12: Debt asset ratio	3.59	3.29	.201	.655	1.580	158	.116
v13: Company turnover	3.73	3.82	.727	.395	-.500	158	.618
v14: Dividend	4.07	4.09	1.658	.200	-.095	158	.924
v15: Dividend payment pattern	4.20	4.12	.281	.597	.543	158	.588
v16: Bonus shares	4.18	4.00	.783	.378	1.063	158	.292
v17: SEC regulations	4.16	4.06	.563	.454	.513	158	.609
v18: Inflation	3.25	3.62	.796	.374	-1.399	158	.164
v19: Decline in bank interest rate	4.31	4.26	.603	.438	.252	158	.801
v20: Image or reputation	4.02	3.79	1.754	.187	1.212	158	.227
v21: Current ownership	3.17	3.12	.384	.537	.215	158	.830
v22: Board of directors	3.34	3.18	.569	.452	.745	158	.458
v23; Information technology	4.16	4.12	.371	.543	.232	158	.817
v24: Political instability	3.93	3.91	.037	.847	.094	158	.925
v25: Market rumor	3.78	3.85	.372	.543	-.309	158	.758

The table 4 provides the descriptive statistics for each of the two groups (as defined by the grouping variable) and the of output inferential statistics. In this test it is assumed that there is no difference in terms of gender concerning investor's preferences of variables during investment decision. A statistically insignificant ( $p$  value  $> .05$ ) result indicates that this assumption is true. A statistically significant ( $p$  value  $< .05$ ) result indicates that the assumption is not true, which indicates that there is difference in terms of gender. From table 4 it can be observed that, in the case of twenty four out of twenty five variables (except friends, family & peers) the F value for Levene's test has  $p > .05$  (equal variance assumption is met). It indicates that there is no significant difference in investor's preferences and their gender. t-Test for equity of means also has  $p > .05$ , causing  $H_1$  to be accepted and concluding that except friends, family & peers the preferences of all other variables during investment decision making doesn't differ significantly between male and female investors.

**ANOVA Analysis:** The one-way analysis of variance (ANOVA) has been used to determine whether there are any significant differences among various age, educational, occupational and income groups concerning their preferences of variables during investment decision.



## Differences among Age Groups

**Table 5: Test of Homogeneity of Variances for Age**

	Levene Statistic	df1	df2	Sig.
v1: Friends, family & peers	7.282	3	156	.000
v2: Brokers recommendation	.144	3	156	.933
v3: Market statistics	4.561	3	156	.004
v4: Earnings per share	3.422	3	156	.019
v5: Net assets value	.792	3	156	.500
v6: Price earnings ratio	1.499	3	156	.217
v7: Net profit after tax	1.144	3	156	.333
v8: Market price movement	.255	3	156	.858
v9: Dividend pays out ratio	2.802	3	156	.042
v10: Marketability	.954	3	156	.416
v11: Liquidity position	.566	3	156	.638
v12: Debt asset ratio	3.614	3	156	.015
v13: Company turnover	1.439	3	156	.233
v14: Dividend	.455	3	156	.714
v15: Dividend payment pattern	1.796	3	156	.150
v16: Bonus shares	.235	3	156	.872
v17: Security exchange commission regulations	.495	3	156	.686
v18: Inflation	1.138	3	156	.335
v19: Decline in bank & government interest rate	1.619	3	156	.187
v20: Image or reputation of company	2.416	3	156	.069
v21: Current ownership	.222	3	156	.881
v22: Board of directors	.477	3	156	.699
v23: Information technology	1.969	3	156	.121
v24: Political instability	1.614	3	156	.188
v25: Market rumor	.615	3	156	.606

Levene's table 5, shows that the p value is greater than 0.05 implying equal variances assumed accepting the null hypothesis for the variables V2, V5, V6, V7, V8, V10, V11, V13, V14, V15, V16, V17, V18, V19, V20, V21, V22, V23, V24 and V25. It indicates that in case of these factors, investor's preferences don't differ significantly. So here ANOVA was justified. On the other hand, ANOVA was inappropriate for the variables V1, V3, V4, V9 and V12, because p value is smaller than 0.05 implying equal variances were not assumed between the age of the investor & their investment perception. So, a robust test of equality of means- Welch Test is needed.

**Table 6: ANOVA of Age**

Between Groups	Sum of Squares	df	Mean Square	F	Sig.
v2: Brokers recommendation	3.622	3	1.207	1.452	.230
v5: Net assets value	5.578	3	1.859	2.009	.115

v6: Price earnings ratio	.832	3	.277	.309	.819
v7: Net profit after tax	1.381	3	.460	.493	.687
v8: Market price movement	2.766	3	.922	1.270	.287
v10: Marketability	.915	3	.305	.345	.793
v11: Liquidity position	1.611	3	.537	.554	.646
v13: Company turnover	.953	3	.318	.337	.799
v14: Dividend	.539	3	.180	.215	.886
v15: Dividend payment pattern	1.795	3	.598	1.015	.388
v16: Bonus shares	5.297	3	1.766	2.288	.081
v17: Security exchange commission regulations	3.851	3	1.284	1.274	.285
v18: Inflation	12.271	3	4.090	2.302	.079
v19: Decline in bank & government interest rate	3.896	3	1.299	1.562	.201
v20: Image or reputation of company	3.069	3	1.023	1.142	.334
v21: Current ownership	3.517	3	1.172	.848	.469
v22: Board of directors	1.568	3	.523	.395	.757
v23; Information technology	.161	3	.054	.063	.979
v24: Political instability	1.126	3	.375	.437	.727
v25: Market rumor	3.821	3	1.274	.806	.492

The ANOVA Table 6 shows that for all the variables,  $p > 0.05$ . Thus  $H_2$  is accepted, implying that there are no significant differences in the age groups towards investment.

**Table 7: Robust Tests of Equality of Means for Age**

		Statistic <sup>a</sup>	df1	df2	Sig.
v1: Friends, family & peers	Welch	3.734	3	58.085	.016
v3: Market statistics	Welch	.185	3	60.717	.906
v4: Earnings per share	Welch	.195	3	69.924	.899
v9: Dividend pays out ratio	Welch	.233	3	63.819	.873
v12: Debt asset ratio	Welch	.352	3	62.129	.788
a. Asymptotically F distributed.					

The output of the Welch table 7 represents that for variable V1  $p < 0.05$ , which means there is a significance difference among the investor at their age level for friends, family & peers. For variables V3, V4, V9 & V12,  $p > 0.05$  indicating no difference in terms of age.

#### Differences among Educational Groups

**Table 8: Test of Homogeneity of Variances for Education**

	Levene Statistic	df1	df2	Sig.
v1: Friends, family & peers	7.223	3	156	.000
v2: Brokers recommendation	2.167	3	156	.094

v3: Market statistics	3.720	3	156	.013
v4: Earnings per share	1.494	3	156	.218
v5: Net assets value	7.770	3	156	.000
v6: Price earnings ratio	.564	3	156	.640
v7: Net profit after tax	1.693	3	156	.171
v8: Market price movement	.854	3	156	.467
v9: Dividend pays out ratio	2.943	3	156	.035
v10: Marketability	8.823	3	156	.000
v11: Liquidity position	.256	3	156	.857
v12: Debt asset ratio	.449	3	156	.719
v13: Company turnover	1.272	3	156	.286
v14: Dividend	2.059	3	156	.108
v15: Dividend payment pattern	2.070	3	156	.106
v16: Bonus shares	4.681	3	156	.004
v17: Security exchange commission regulations	.606	3	156	.612
v18: Inflation	.446	3	156	.721
v19: Decline in bank & government interest rate	4.711	3	156	.004
v20: Image or reputation of company	6.498	3	156	.000
v21: Current ownership	3.758	3	156	.012
v22: Board of directors	1.424	3	156	.238
v23: Information technology	3.587	3	156	.015
v24: Political instability	1.894	3	156	.133
v25: Market rumor	4.098	3	156	.008

Levene's table 8 represents that  $p > 0.05$ . It implies equal variances assumed and null hypothesis is accepted for the variables V2, V4, V6, V7, V8, V11, V12, V13, V14, V15, V17, V18, V22 and V24. While for the variables V1, V3, V5, V9, V10, V16, V19, V20, V21, V23 and V25  $p < 0.05$ , implying null hypothesis is rejected and equal variances were not assumed between the education of the investor & their investment perception.

**Table 9: ANOVA of Education**

Between Groups	Sum of Squares	df	Mean Square	F	Sig.
v2: Brokers recommendation	6.738	3	2.246	2.768	.044
v4: Earnings per share	6.530	3	2.177	3.314	.022
v6: Price earnings ratio	4.878	3	1.626	1.864	.138
v7: Net profit after tax	5.043	3	1.681	1.848	.141
v8: Market price movement	3.706	3	1.235	1.716	.166
v11: Liquidity position	4.220	3	1.407	1.475	.223
v12: Debt asset ratio	8.308	3	2.769	3.095	.029
v13: Company turnover	3.781	3	1.260	1.363	.256

v14: Dividend	3.017	3	1.006	1.225	.303
v15: Dividend payment pattern	4.808	3	1.603	2.812	.041
v17: Security exchange commission regulations	5.799	3	1.933	1.943	.125
v18: Inflation	6.062	3	2.021	1.112	.346
v22: Board of directors	4.937	3	1.646	1.264	.289
v24: Political instability	3.013	3	1.004	1.186	.317

The ANOVA Table 9 shows that, for the variables like V6, V7, V8, V11, V13, V14, V17, V18, V22 and V24,  $p > 0.05$ . So  $H_3$  is accepted, implying that there are no significant differences in the education among the groups towards investment. While for V2, V4, V12 & V15,  $H_3$  is rejected because  $p < 0.05$ , implying that there are significant differences in the education among the groups towards investment.

**Table 10: Robust Tests of Equality of Means for Education**

		Statistic <sup>a</sup>	df1	df2	Sig.
v1: Friends, family & peers	Welch	.	.	.	.
v3: Market statistics	Welch	1.483	3	4.625	.333
v5: Net assets value	Welch	1.540	3	4.560	.322
v9: Dividend pays out ratio	Welch	.	.	.	.
v10: Marketability	Welch	.	.	.	.
v16: Bonus shares	Welch	.	.	.	.
v19: Decline in bank & government interest rate	Welch	.700	3	4.654	.594
v20: Image or reputation of company	Welch	.	.	.	.
v21: Current ownership	Welch	.329	3	4.801	.805
v23: Information technology	Welch	.	.	.	.
v25: Market rumor	Welch	.	.	.	.

The output from the Welch table 10,  $p > .05$  for variables V3, V5, V19 and V21. However the output from the table cannot be performed Welch test for variable V1, V9, V10, V16, V20, V23 and V25 because here at least one group has zero variance.

#### **Differences among Educational Groups**

**Table 11: Test of Homogeneity of Variances for Occupation**

	Levene Statistic	df1	df2	Sig.
v1: Friends, family & peers	1.748	3	156	.159
v2: Brokers recommendation	.365	3	156	.778
v3: Market statistics	2.241	3	156	.086
v4: Earnings per share	.362	3	156	.781
v5: Net assets value	1.259	3	156	.291
v6: Price earnings ratio	.049	3	156	.985
v7: Net profit after tax	2.974	3	156	.033
v8: Market price movement	3.545	3	156	.016

v9: Dividend pays out ratio	2.553	3	156	.058
v10: Marketability	1.019	3	156	.386
v11: Liquidity position	1.127	3	156	.340
v12: Debt asset ratio	2.459	3	156	.065
v13: Company turnover	2.517	3	156	.060
v14: Dividend	.879	3	156	.454
v15: Dividend payment pattern	.483	3	156	.694
v16: Bonus shares	.039	3	156	.990
v17: Security exchange commission regulations	1.619	3	156	.187
v18: Inflation	.584	3	156	.627
v19: Decline in bank & government interest rate	.123	3	156	.947
v20: Image or reputation of company	1.262	3	156	.290
v21: Current ownership	.245	3	156	.865
v22: Board of directors	.688	3	156	.561
v23: Information technology	1.270	3	156	.287
v24: Political instability	1.220	3	156	.304
v25: Market rumor	3.823	3	156	.011

Levene's table 11, shows that  $p > 0.05$  implying equal variances assumed for the variables V1, V2, V3, V4, V5, V6, V9, V10, V11, V12, V13, V14, V15, V16, V17, V18, V19, V20, V21, V22, V23 and V24. So, null hypothesis is accepted and ANOVA is justified for these variables. On the other hand, for the variables V7, V8 and V25,  $p < 0.05$  implying equal variances were not assumed between the occupation of the investor & their investment perception.

**Table 12: ANOVA of Occupation**

Between Groups	Sum of Squares	df	Mean Square	F	Sig.
v1: Friends, family & peers	2.274	3	.758	1.059	.369
v2: Brokers recommendation	1.947	3	.649	.771	.512
v3: Market statistics	5.287	3	1.762	2.808	.041
v4: Earnings per share	1.282	3	.427	.619	.604
v5: Net assets value	4.600	3	1.533	1.646	.181
v6: Price earnings ratio	.727	3	.242	.270	.847
v9: Dividend pays out ratio	4.989	3	1.663	1.427	.237
v10: Marketability	2.748	3	.916	1.049	.373
v11: Liquidity position	3.034	3	1.011	1.052	.371
v12: Debt asset ratio	3.931	3	1.310	1.420	.239
v13: Company turnover	1.024	3	.341	.362	.780
v14: Dividend	4.751	3	1.584	1.955	.123
v15: Dividend payment pattern	3.567	3	1.189	2.057	.108
v16: Bonus shares	2.652	3	.884	1.121	.343
v17: Security exchange commission regulations	8.092	3	2.697	2.752	.045

v18: Inflation	11.351	3	3.784	2.123	.100
v19: Decline in bank & government interest rate	1.564	3	.521	.616	.606
v20: Image or reputation of company	6.093	3	2.031	2.317	.078
v21: Current ownership	2.377	3	.792	.570	.635
v22: Board of directors	7.053	3	2.351	1.825	.145
v23; Information technology	5.590	3	1.863	2.292	.080
v24: Political instability	1.622	3	.541	.632	.595

Again, the ANOVA Table 12 shows, for the variables like V1, V2, V4, V5, V6, V9, V10, V11, V12, V13, V14, V15, V16, V18, V19, V20, V21, V22, V23 and V24  $p > 0.05$  implying that there are no significant differences in the occupation among the groups towards investment. Thus,  $H_4$  is accepted for these twenty-three variables. But for V3 & V17,  $p < 0.05$  implying there are significant differences in the education among the groups towards investment. Therefore, Welch test has been conducted.

**Table 13: Robust Tests of Equality of Means for Occupation**

		Statistic <sup>a</sup>	df1	df2	Sig.
v7: Net profit after tax	Welch	.420	3	54.088	.740
v8: Market price movement	Welch	2.108	3	58.069	.109
v25: Market rumor	Welch	1.962	3	61.545	.129
a. Asymptotically F distributed.					

The output from the Welch table 13 represents that for variables V7, V8 and V25  $p > 0.05$ .

## Findings

Majority of the respondents were male which shows there is a male gender dominating in this industry. 78.80 % are males and 21.20 % are females according to this sample. Age wise majority are between the ages of 41 to 55, the next being 25 to 40 years and then above 55 years of age. People who are retired or who expect the source of income from other than business or service may be above 55 years of age. People into services and business are involved with investing into stock markets comparatively with the people in other categories and majorly have better years of experience than others. Including all twenty-five variables seven core factors has been extracted. Investor's ultimate goal is profit maximization. In order to do so they always keep sharp eyes on factors such as Market price movement, Net assets value, Decline in bank & government interest rate, Liquidity position, Bonus shares, Board of directors & Political instability. The demographic variables like age, educational qualification and monthly income in the equity market showed its independency during investment. According to this study, the experience in the equity market, Gender bias was not evident with the sample as the percentage of females is lesser. But in one particular factor that is friends, family & peers suggestions there was significance difference between the gender of the investor & their investment perception. There was significance difference between the age level of the investor & their investment perception in one particular variable that is friends, family & peers suggestions. There was no significance difference found between the educational level of the investor & their investment perception. There was no significance difference found between the occupation of the investor & their investment perception.

## Conclusion

Capital market is essentially driven by the expectations of the investors. These expectations may be both rational and irrational. Being human, investors are often guided by their behavioral sentiments as well as certain key rational attributes in terms of risk-tolerance. However, when the test of investor's decision is conducted within the frame of key assumptions like homogeneous expectation, information efficiency etc. It is often observed that the ultimate meaning of their expectation does not always hold true. Marketers & the people associated with stock market very

often take into account the suggestions from friends, family & peers. Friends, family & peers suggestion is usually declared as advice given to their closest people to buy, sell or hold security and also regarding the merits of a particular stock. In this study, friends, family & peers suggestion differ in terms of gender & age group. So, marketer & associated people involved with equity market consider this factor as a useful one. They should take proper actions and should be more concern about this factor. This study brings out the significance of investing in equity market through the factors that influence the decision making of an active participant in this sector. It has attempted to help the policy makers and the concerned authority by providing an overview of the decision-making status of the individual investors with respect to their demographic differences.

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