

Behavioral Financing: Demographic Factors and Services of Brokerage Houses in Bangladesh

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This paper investigated two vital areas of behavioral finance; investors' awareness about capital market and the services rendered by the brokerage houses by employing a structured questionnaire based on a survey between periods of August 2010-September 2010 on 76 individual investors. The results reveal that investors are conscious nowadays and have positive attitude towards capital market. The investors are investing after carefully investigating all market related issues. Another aspect of this study reveals that there is a significant gap between expected and actual service of brokerage houses. Reasons like high commission rate, non-cooperative attitude of brokers, high account maintenance fee etc created such differences. After analyzing survey results, education and occupation of the investors are found to be significant factors for investment, preference and consideration of buying shares whereas no effect of age and gender are found. According to findings of the study, investors are suggested to be responsible toward both capital market situation and be conscious of brokerage house services. There are lacks of studies concerning individual investors' behavior in Bangladesh, this paper will help fill this loophole and expect to enhance knowledge in this field.

Keywords: Behavioral Finance, Demographic factors, Services, Investment factors.

Field of Study: Behavioral Finance

1. Introduction

In Bangladesh, responses of investors to capital market are overwhelming. The Bangladeshi economy 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 which foster savings and channel them to their most efficient use. For example, after initiating some policies such as trading system automation known as central depository system, reducing bank interest rate and involving merchant banks' in capital market as well as new issues being floated by the private and public sectors, many investors were able to make significant profits between 2007 and the middle of 2009 from the capital market [Source: DSE website]. As a result, investors in Bangladesh invest their money with high expected return from the securities. At the same time investors are very price sensitive. This "expected" return is directly related with the "perception" of price and actual "performance" of a particular security. This expectation-perception-performance relationship eventually reflects in investors' satisfaction and dissatisfaction. Also, they are influenced by issues like availability of information.

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Most of the previous authors focus on psychological aspect of behavior in individual investors. For instance, they buy those stocks that grab their attentions (Berbar et al. 2006), tend to sell winner and buy losers (Grinblatt and Keluharju; 2000), gain higher return when their sentiment is low, but when sentiment is high these patterns attenuate (Baker and Wurgler; 2003), irrationality is another feature that traced when they are making investment decision (Hilfisher, 2001; Ritter, 2003). Furthermore, cognitive errors like self deception, disposition effects are found in their behavior (Hilfisher, 2001). Trading too much, reluctance to realize loses are some other qualities of individual investors (Odean, 2001; Shu et all, 2005). Other scholars revealed that many investors have lack of data analysis and interpretation skills (Shiller, 1993; Khaneman, 1973). In addition, risk propensity and risk perception are driven by past experience (Byrne, 2005). Only a few researchers are worked with demographic factors of investors, where demographic variables are explored as insignificant (Rashid and Nishat, 2009). Hence, this study attempts to minimize the above literature gap by evaluating the demographic factors of investors in Bangladesh on how individual investors respond to capital market

According to Security and Exchange Commission of Bangladesh (SEC), approximately a total of 4.2 million retail investors are present in both Dhaka and Chittagong Stock Exchange, but no records are found on their demographic factors (age, gender, occupation etc.) and to which extent they are aware of the capital market condition related to price fluctuation and other issues, though developed countries like the USA maintains customer satisfaction index called ACSI (American Customer Satisfaction Index) related to stock market price fluctuation or related matters. Thus, many unscrupulous users disseminate rumors through social networking sites or cell phone and they misguide investors. Furthermore, according to SEC, factors that affect security prices are Stock splits, dividend announcements, initial public offerings, reactions to macro and micro economic news, demand/supply of securities in the market, marketability of securities, dividend payments, many others. Investors become so conscious now a days that they consider different factors before taking any investment decision like analyzing securities, consider relative valuation techniques like calculating measures such as P/E^* , P/B^* , P/S^* [Appendix] ratio and industry or other stocks history over time.

The prerequisite for entering into capital market, an investor has to open both brokerage account and Beneficiary Opening (BO) Account with a brokerage house or through margin account with merchant banks. Dhaka Stock Exchange (DSE) has 214 brokerage houses and 31 merchant banks. The roles of these intermediaries are to smooth the progress of stock trading such as accepting a customer to open a customer account for trading; executing the customer's order for buy or sell as per their written or telephonic order; providing trade confirmation report on the executed order with details within 24 hours of trading; making payment against sell of security, or delivery of security bought, to the customer on end of $T+3^*$ (For A,B,G and N categories scripts) or on end of $T+7^*$ (for Z categories script). In case of default, interest @ 1.5 per month on the value of transaction is also payable to the customer. But brokers are sometimes accused of misleading investors and persuade them to buy or sell any particular share. Many of the stocks are overpriced and this is a serious risk factor for the inexperienced investors. The excessive profiteering tendency of both of the brokerage houses and merchant banks has fuelled the loss of the retail investors. Instead of giving them proper advice to change their portfolio management strategy during downward market trends, these institutes rather

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pursued the retail investors to continue abnormal trading just to earn huge commissions and huge interest (16 percent) on the margin loan as well. When the market behaved upwards during 2007-2008, it was easy and safe to make quick profits. But, now that is not possible. Also, improvement of IT and telecommunication sectors in the country have made the situation even more complicated. Unscrupulous persons are using several social networks in the Internet and cell phone to create rumors in the market. Because of the misuse of cell phone, investors, especially gamblers sometimes instantly get the internal information regarding any sensitive decisions of any meeting and even high court proceedings on a case related to the capital market. This paper attempts to identify why investors are choosing or leaving a particular broker and the differences between expected and actual services of a brokerage house/ merchant bank.

The findings of the survey show that though individual investors take investment in security market as alternative source of income along with their fixed income, they tend to take risk by investing large amount of capital. The reasons behind this decision are steady return on capital, knowledge of capital market situation through training program arranged by SEC etc. They take investment decision after considering factors like fundamental base, P/E or P/B ratio and find secondary market to be more attractive than IPO or mutual fund. Among all other sectors, financial institutions (i.e. bank, leasing) realized to be sturdy than any other sectors. But their demographic factors do not have any impact on their behavior. The results of the survey indicates that brokerage houses differ in charging commission at the same time there is no uniformity of charging account maintenance fee from clients. Moreover, investors maintain their own portfolio, while it is the responsibility of the brokerage house. Even, most of the investor accuse that their brokers do not provide them with contact note after trading. On the basis of survey results, investors are suggested to be responsive to both security market condition as well as services of brokerage houses.

The reminder of the paper is designed in seven sections. Section 2 demonstrates the statement of the problem. Section 3 precisely describes objective of the study followed by literature review in section 4 and methodology in section 5. Results are shown in section 6. Authors put policy implications in section 7 and limitations of the study in section 8.

1.1 Key Features of SEC (Securities and Exchange Commission)

SEC was established on 8 June, 1993 under the Securities and Exchange Commission Act, 1993. The Chairman and Members of the Commission are appointed by the government and have overall responsibility to administer securities legislation. The mission of SEC is to protect the interest of investors through maintaining fair, transparent securities markets and ensure proper issuance of securities. Mirroring their mission, following functions are exercised by SEC:

- Regulating the business of the Stock Exchanges or any other securities market.
- Registering and regulating the business of stock-brokers, sub-brokers, share transfer agents, merchant bankers and managers of issues, trustee of trust deeds, registrar of an issue, underwriters, portfolio managers, investment advisers and other intermediaries in the securities market.

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- Registering, monitoring and regulating collective investment scheme including all forms of mutual funds.
- Monitoring and regulating all authorized self regulatory organizations in the securities market.
- Prohibiting fraudulent and unfair trade practices relating to securities trading in any securities market.
- Promoting investors' education and providing training for intermediaries of the securities market.
- Prohibiting insider trading in securities.
- Regulating the substantial acquisition of shares and take-over of companies.
- Undertaking investigation and inspection, inquiries and audit of any issuer or dealer of securities, the Stock Exchanges and intermediaries and any self regulatory organization in the securities market.
- Conducting research and publishing information.

2. Statement of the Problem

Investors in Bangladesh invest their money with high expected return from the securities. At the same time investors are very price sensitive. This “expected” return is directly related with the “perception” of price and actual “performance” of a particular security. This expectation-perception-performance relationship eventually reflects in investors' satisfaction and dissatisfaction. Individual investors' 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). Every trader or investor should know what is happening within the company and the industry to confirm why the stock or option is behaving as it is or if there are any possible events which could affect the stock or option price. Visiting the company website and contacting the Investor Relations department is a good idea before entering into a trade. Its a little time consuming but this step may save you from any surprises and help to confirm your analysis.

Also, investors buying and selling behavior are affected by cognitive errors such as self-deception. It occurs because people tend to think that they are better than they really are; heuristic simplification, which occurs because individuals have limited attention, memory and processing capabilities; disposition effect, individuals are prone to sell their winners too quickly and hold on to their losers too long (Hirshleifer 2001). Ippolito (1992) reported that fund selection by investors is based on past performance of the funds and money flows into winning funds more rapidly than they flow out of losing funds.

Investors have several investment options in security market. One is through primary market in the form of Initial Public Offering (IPO)*, another is in secondary market. In addition, they can invest in Mutual Fund* too. Every asset class has different characteristics. Stocks have the potential to provide high total returns with proportionate level of risk, while bonds may provide lower risks along with regular income. The attitude of every individual investor may be influenced by their investment goals, risk tolerance, time horizon, personal circumstances or performance aspect of the asset class. Generally, they should follow the rules for investment, the analysis of investment and discussion of financial behavior tend to assume behavior, which is logical and internally consistent in many ways. Investor behavior does not; however, always appear to conform to such expectation norms.

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Much of marketing theory is based on the notion that individuals act rationally and consider all available information in the decision making process. The more the risk is involved in an investment, the more the return is required to motivate the investors. It plays a central role in asset pricing, because it is the risk that investors undertake with expectation of getting rewarded.

As investors are the customers of brokerage houses, they expect their brokerage house to provide them with the best services such as, advice on investment, reasonable commission rate, managing portfolio etc. In general, customers tend to purchase particular products and services or patronize specific firms on an ongoing basis. The survey of existing literature on Bangladesh reveals that there is a lack of study that emphasizes on areas of behavioral finance; investors' awareness of capital market and the expected and actual services rendered by the brokerage houses.

3. Objective of the Study

The overall objective of this study is to have insight into the dynamics in capital market as well as brokerage house that maneuver decisions of individual investors. The specific objectives are:

- a) To examine the relationship between demographic factors and aspects closely related with capital market. Another area that influences investor's behavior is the service level of brokerage houses.
- b) To analyze differences between expected and actual services of brokerage houses.

The results of this study will help to draw a clear picture of investor's behavior pattern in capital market which can be replicated to capital market similar to Bangladesh.

4. Literature Review

From December, 2010, malfunctioning of stock exchange in Bangladesh affects mostly individual investors. In this scenario, to know the decision making criteria of investors become imperative. Early researches' relating to individual investors focuses on their behavioral pattern. In this regard, Barber and Odean (2004) found that individual investors display attention-based buying behavior. They are net buyers on high volume days, net buyers following both extremely negative and extremely positive one-day returns, and net buyers when stocks are in the news. Seasholes and Wu's (2004) interpretation of this behavior is consistent with Barber and Odean's theory that the attention of individual investors is attracted by the event of hitting a price limit and, individuals become net buyers of stocks that catch their attention. Barber et al. (2006) studied the individual investor trading results from Taiwan. Using orders underlying trade, they document that virtually all of individual trading losses can be traced to their aggressive orders; passive orders placed by individuals are profitable at short horizons and suffer modest losses at longer horizons. Baker and Wurgler (2003) studied the investors sentiment and the cross section of stock returns. They found when sentiment is low, subsequent returns are relatively high on smaller stocks, high volatility stocks, unprofitable stocks, non-dividend-paying stocks, extreme-growth stocks, and distressed stocks, consistent with an initial underpricing of these stocks. When sentiment is high, on the

other hand, these patterns attenuate or fully reverse. The study of Hirshleifer (2001) categorized different types of cognitive errors that investors make i.e. self-deception, occur because people tend to think that they are better than they really are; heuristic simplification, which occurs because individuals have limited attention, memory and processing capabilities; disposition effect, individuals are prone to sell their winners too quickly and hold on to their losers too long. Among the studies, individual investor behavior is documented in the study of Odean (1998, 1999), Barber and Odean (2000), and Barber and Odean (2004). All these studies show that individual investors are characterized by: 1) trading too much, which leads to a reduction in the realized profits, and 2) reluctance to realize losses. **Grinblatt and Keloharju (2001)** find that traders are reluctant to realize losses, and often trade for non-rational reasons, exhibited by reference price effects. There is even evidence that investor moods, as influenced by cloud cover or number of hours of daylight, affect financial markets (Hirshleifer and Shumway, 2003) and (**Kamstra, Kramer, and Levi, 2003**). Another study by **Shiller (2000)** reported that many investors do not have data analysis and interpretation skills. This is because, data from the market supports the merits of index investing, passive investors are more likely to base their investment choices on information received from objective or scientific sources. People are limited in their capacity for processing information, since they possess a limited working memory and limited computational capabilities and are limited in their attention capacity and hence ability to perform multiple tasks simultaneously”, (Kahneman and Tversky 1973). Kahneman and Tversky (2000) edit the book, “Choices, Values, and Frames”, that talked about the phenomena of decision under uncertainty. They pointed out that investors behave like risk averse in winning situation and the same investors become risk seeker in case of losing situation and commit mistake in their financial decisions. High risk tolerant investors will constitute a portfolio of relatively high risk and low risk tolerant investors will constitute low risk securities portfolio (Cortor and 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 and Pablo, 1992). Fund selection by investors is based on past performance of the funds and money flows into winning funds more rapidly than they flow out of losing funds (Ippolito, 1992). Investors demographics found to be insignificant in accordance with their trading experience. (Rashid and Nishat, 2009). Also, Kiran and Rao. (2005) identify investor group segments using the demographic characteristics of investors as risk averse and risk takers.

Another aspect of this paper is to find out differences between actual and potential services of brokerage houses. Previous researchers found that every broker has its own set of individual skills for dealing in the stock market and they give advice according to their own wisdom or experience. There is strong evidence that stock prices are significantly influenced by analysts' recommendation changes, not only at the immediate time of the announcement but also in subsequent months. (Womack, 1996) There are number of registered members are available in the market, but usually it is not feasible to hire too many brokers to maintain diverse portfolio in different sectors. Thereby the selection of the right stock broker is an important consideration for efficient trading in the stock market. A broker recommendation is usually declared as advice given to the clients to buy, sell or hold security. The recommendations given by the stock brokers' depends upon a number of factors ranging from domestic market conditions to global market conditions as well as

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ranging from sentiments of the retail investors to that of foreign institutional investors. However the study has shown that there are 3 key factors namely conditions prevailing all over whether in company, country or outside the country; brokers' outreach, analysts and research ability; and availability of information with the brokers are of utmost importance and plays major role while stock brokers makes recommendations to his/her client. [Bawa, 2010]. Another thing is on-line brokerage firms that were using the Internet to enhance their customer-service capabilities and provide assistance and information to customers around the clock apparently had an advantage over other firms. In traditional markets, many brokerage transactions can only be completed during normal business hours. In contrast, brokerage firms operating in electronic markets are open 24 hours a day and only require a small number of workers to provide customer service throughout the entire United States (and perhaps even globally). (Oetzel, 2004). Moreover, pre-existing relationships with the new brokerage house make it more likely that investors will follow their broker. Moreover, new brokerage houses that are less active in a particular stock are more likely to attract the investors from the old houses (Booth et al. 2003).

Hence, this study attempts to minimize the above literature gap by evaluating the demographic factors of investors in Bangladesh on how individual investors respond to capital market and differences between expected and actual service of the brokerage house.

5. Methodology

As the study is exploratory in nature, the researchers used both primary and secondary data to conduct the study. Both primary and relevant secondary data were collected and used in context of Bangladesh. Both primary and Secondary data were used in moderate scale and were collected from different articles, journals etc. as mentioned in the reference section.

5.1 Sample

Following a structured questionnaire, 76 educated (Bachelor/ Masters) investors who visit brokerage houses regularly in Dhaka City were surveyed. Initially data was collected from 100 respondents following convenience sampling. Among them, only 76 respondents screened to be useable. Well educated respondents (bachelor or above) were chosen because the questionnaire presumed awareness of some basic terminologies of capital market. Educated respondents were chosen intentionally to reduce sampling bias. The selected respondents were presumed to be better responsive, well-informed, and representative following the purpose of the study.

5.2 Survey Instrument

For collecting primary data from the brokerage houses, this study developed a structured questionnaire with 23 statements, some of which are based on demographic variables. Besides the demographic factors, there were some other questions regarding investment amount, preference for investment, consideration before buying shares etc.

5.3 Statistical Methods for Calculations

The purpose of the survey is to understand the nature and response of individual investors, particularly their demographic factors, conceptual knowledge of capital market, and how they evaluate market intermediaries' services. These aspects are further surveyed, scrutinized and analyzed employing some statistical techniques through both qualitative and quantitative methods. Simple descriptive statistics like frequency distribution, mean and standard deviation are used to quantify the opinions of the respondents. Statistical chi-square test following cross-tabulations and descriptive statistics are used to test the hypotheses furnished in the objective part. Moreover, relational studies of correlation research are deployed to evaluate the relationship between demographic factors (occupation, age etc) and capital market issues (i.e. preferred areas for investment).

6. Results from Data Analysis

6.1 Descriptive Analysis

It is evident from the results of the survey that individual investors (55.26) consider capital market investment as alternative source of earning along with their usual job. Secondary share market is preferred for high profit margin (52.63% individual prefer) rather than IPO or mutual fund as source of investment. In addition, they deem financial institutions as less adverse sector of investment (92%) (See Annex-1). Like other service oriented organizations, investors prefer a particular Brokerage House for various reasons. 57.89% investors prefer because their friends are clients of that house, whereas, 57.89% say they choose it for convenient communication (Annex-1).

It is observed from the descriptive analysis that mostly educated people are active in the capital market. A large number of investors are in service whereas very few females are engaged in the market. It is also observed that maximum investors have investment above TK1, 00000 whereas there are existences of wider standard deviation. It means that some investors have extremely high investment while some have low (mean 2.57 S.d=1.016). This is an unwholesome indication of entering black money into the capital market. (See table-7 Appendix- 2)

6.2 Correlation of the Variables under the Study

To estimate the correlation between independent variables (education, occupation) and dependent variables (preference for investment, consideration before buying and preferred sector for investment) Karl-Pearson's correlation technique has been deployed. In addition to this, relational estimation has also been performed.

The value of correlation coefficient was found to be $r=.146$, which implies that there is a weak positive relationship between education and preference for investment. Though most of the graduates (59%) prefer to invest in secondary market (52.3%) because they assume secondary share are profitable, IPO is scored 87.5% by 17.9% of graduates. But respondents with masters' degree prefer both IPO and Secondary market (72.2%) as preferred areas for investment. The analysis shows that higher educated investors are more knowledgeable than the lower educated [Table-1].

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Table 1: Education of the respondents versus preference for investment

			Preference for investment				Total
			IPO	Secondary Share	Ipo+secondary Share	All	
Education of the respondents	Graduate	Count	7	23	5	4	39
		% within education of the respondents	17.9%	59.0%	12.8%	10.3%	100.0%
		% within preference for investment	87.5%	52.3%	27.8%	100.0%	52.7%
	Masters	count	1	21	13	0	35
		% within education of the respondents	2.9%	60.0%	37.1%	.0%	100.0%
		% within preference for investment	12.5%	47.7%	72.2%	.0%	47.3%
Total	count	8	44	18	4	74	
	% within education of the respondents	10.8%	59.5%	24.3%	5.4%	100.0%	
	% within preference for investment	100.0%	100.0%	100.0%	100.0%	100.0%	

Symmetric measures: Pearson's R= .146 Approx. Sig. .215

The value of correlation coefficient $r=.326$, which implies that there is a moderate positive relationship between occupation and preference for investment. Percentage within preference for investment in both IPO and secondary share is exactly the same (50%) for both occupational group (service, business). But investors, whose occupation is service, prefer IPO (100%) [Table-2].

Table 2: Occupation of the respondents versus preference for investment

			Preference for investment				Total
			IPO	Secondary Share	Ipo+secondary Share	All	
Occupation of the respondents	Service	Count	7	25	8	0	40
		% within occupation of the respondents	17.5%	62.5%	20.0%	.0%	100.0%
		% within preference for investment	100.0%	62.5%	50.0%	.0%	60.6%
	Business	count	0	15	8	3	26
		% within occupation of the respondents	.0%	57.7%	30.8%	11.5%	100.0%
		% within preference for investment	.0%	37.5%	50.0%	100.0%	39.4%
	Total	count	7	40	16	3	66
		% within occupation of the respondents	10.6%	60.6%	24.2%	4.5%	100.0%
		% within preference for investment	100.0%	100.0%	100.0%	100.0%	100.0%

Symmetric measures: Pearson's R= .326 Approx. Sig. .008

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The value of correlation coefficient $r=.167$, which implies that there is a weak positive relationship between education and factors needed to consider before buying. Most of the investors (43.9%) with graduate level education are influenced by ERP/PE ratio (55.6%) before buying share, whereas most of the (57.1%) masters level investors consider fundamental base (64.5%) before buying. But both groups emphasize also on stock price before taking any decision [Table-3].

Table 3: Occupation of the respondents versus consider before buying company's share

			Consider before buying company's share				Total
			Company Reputation	Stock Price	Fundamental Base	ERP/PE	
Occupation of the respondents	Service	Count	8	4	15	9	36
		% within occupation of the respondents	22.2%	11.1%	41.7%	25.0%	100.0%
		% within consider before buying company's share	100.0%	100.0%	57.7%	37.5%	58.1%
	Business	count	0	0	11	15	26
		% within occupation of the respondents	.0%	.0%	42.3%	57.7%	100.0%
		% within consider before buying company's share	.0%	.0%	42.3%	62.5%	41.9%
Total		count	8	4	26	24	62
		% within occupation of the respondents	12.9%	6.5%	41.9%	38.7%	100.0%
		% within consider before buying company's share	100.0%	100.0%	100.0%	100.0%	100.0%

Symmetric measures: Pearson's R= .444 Approx. Sig. .000

The value of correlation coefficient $r=.444$, which implies that there is a moderate positive relationship between occupation and factors consider before buying. Investors in both occupations consider fundamental base and ERP/PE ratio more than company reputation and stock price [Table-4].

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Table 4: Education of the respondents versus consider before buying

			Consider before buying company's share				Total
			Company Reputation	Stock Price	Fundamental Base	ERP/PE	
Education of the respondents	Graduate	Count	8	1	11	15	35
		% within education of the respondents	22.9%	2.9%	31.4%	42.9%	100.0%
		% within consider before buying company's share	100.0%	25.0%	35.5%	55.6%	50.0%
	Masters	count	0	3	20	12	35
		% within education of the respondents	.0%	8.6%	57.1%	34.3%	100.0%
		% within consider before buying company's share	.0%	75.0%	64.5%	44.4%	50.0%
Total		count	8	4	31	27	70
		% within education of the respondents	11.4%	5.7%	44.3%	38.6%	100.0%
		% within consider before buying company's share	100.0%	100.0%	100.0%	100.0%	100.0%

Symmetric measures: Pearson's R= .167 Approx. Sig. .168

The value of correlation coefficient $r = -0.190$, which implies that there is a weak negative relationship between occupation and preferred sector [Table-5].

Table 5: Education of the respondents*sectors preferred for investment

			Which sector you find more profitable?			Total
			Financial Institution	MNCs	others(Textile/FMCG/Pwr Sector/Phar)	
education of the respondents	Graduate	Count	29	3	7	39
		% within education of the respondents	74.4%	7.7%	17.9%	100.0%
		% within which sector you find more profitable?	47.5%	100.0%	70.0%	52.7%
	Masters	Count	32	0	3	35
		% within education of the respondents	91.4%	.0%	8.6%	100.0%
		% within which sector you find more profitable?	52.5%	.0%	30.0%	47.3%
Total		Count	61	3	10	74
		% within education of the respondents	82.4%	4.1%	13.5%	100.0%
		% within which sector you find more profitable?	100.0%	100.0%	100.0%	100.0%

Symmetric measures: Pearson's R= -.190 Approx. Sig. .105

The value of correlation coefficient $r = -0.145$, which implies that there is a weak negative relationship between occupation and preferred sector. Most of the service

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holders (77%) and business persons (88.5%) are rating financial institutions more profitable and risk free sector than Multinational Companies [Table-6].

Table-6: Occupation of the respondents versus consider before buying company's share

			Which sector you find more profitable?			Total
			Financial Institution	MNCs	others(Textile /FMCG/Power Sector/Pharm)	
Occupation of the respondents	service	Count	31	2	7	40
		% within Occupation of the respondents	77.5%	5.0%	17.5%	100.0%
		% within which sector you find more profitable?	57.4%	66.7%	77.8%	60.6%
	business	Count	23	1	2	26
		% within Occupation of the respondents	88.5%	3.8%	7.7%	100.0%
		% within which sector you find more profitable?	42.6%	33.3%	22.2%	39.4%
Total	Count	54	3	9	66	
	% within Occupation of the respondents	81.8%	4.5%	13.6%	100.0%	
	% within which sector you find more profitable?	100.0%	100.0%	100.0%	100.0%	

Symmetric measures Pearson's R= -.145 Approx. Sig .245

To identify which variables have significant association with demographic factors, the *Chi-square* test of the factors was performed. Variables Investment amount, Preference for Investment and Consideration before buying shares were considered under study. To test the statistical association between the considered variables, null and alternative hypotheses were designed as the following format:

H_0 : There is no significant association between the variables.

H_a : There is significant association between the variables.

Table 7: Hypothesis testing an association between demographic variables versus Investment amount, Preference for Investment, Consideration before buying shares.

Hy p. No	Description of the variables to be associated	Value of chi-square	Degree of freedom	Cramer's V	P-value
1.	Education of the respondents Vs Investment amount	18.296	3	.660	.000
2.	Education of the respondents Vs Preference for Investment	11.965	3	.402	.008
3.	Education of the respondents Vs Consideration before buying a share	10.932	2	.498	.004
4.	Occupation of the respondents Vs Investment amount	12.023	3	.368	.001
5.	Occupation of the respondents Vs Preference for Investment	9.979	3	.389	.019
6.	Occupation of the respondents Vs Consideration before buying a share	7.704	2	.444	.021
7.	Age of the respondents Vs Investment amount	17.828	6	.461	.007
8.	Age of the respondents Vs Preference for Investment	15.473	9	.264	.079
9.	Age of the respondents Vs Consideration before buying a share	5.095	6	.241	.532
10.	Gender of the respondents Vs Investment amount	.366	3	.093	.947
11.	Gender of the respondents Vs Preference for Investment	2.216	3	.173	.529
12.	Gender of the respondents Vs Consideration before buying a share	.715	2	.128	.699

On the basis of the *Chi-square* values in table 7, we reject hypothesis-1 of no association, that is, there is some significant association between education level of the respondents and investment amount. It means that the investment amount of educated and non-educated investors in Bangladesh capital market is different. There exists moderate positive relation between the variables (Cramer's V= 0.660) with P-value .000. Therefore, it is obvious that the association is significant.

A very expected finding was found in case of the association between the Preference for Investment and Consideration before buying shares. The alternative hypothesis cannot be accepted and following all the results of the statistical tools (Cramer's V, Chi-square), we can infer that there is a significant association between education of the investors and two other variables. Therefore, it could be concluded that education is obviously a significant factor of the investor related to the capital market. (See table-6 Column-5-6). Similar types of findings are observed regarding the Occupation of the investors (hypothesis 4-6). From the table above, we can easily conclude that Occupation is a strong significant factor in the capital market, especially in case of Investment amount, Preference for investment, Consideration before buying shares (See table-6 Column-5-6). A moderate strength of relationship is also proven by the value of Cramer's V (.368, .389, .444 respectively).

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Age of the respondent is found to be a significant factor regarding the investment amount of the investor whereas it is insignificant in case of the Preference for Investment and Consideration before buying shares. (See table-6 Column 4-5). The results also show that the gender of the respondents is not a significant factor since the hypothesis of association is accepted for all three (hyp 10-12) considered variables.

7. Policy Implication

The findings of the survey show that though individual investors take investment in security market as alternative source of income along with their fixed income, they tend to take risk by investing large amount of capital. The reasons behind this decision are steady return on capital, knowledge of capital market situation through training program arranged by SEC etc. They take investment decision after considering factors like fundamental base, P/E or P/B ratio and find secondary market to be more attractive than IPO or mutual fund. Among all other sectors, financial institutions (i.e. bank, leasing) realized to be sturdy than any other sectors. But their demographic factors do not have any impact on their behavior. The results of the survey indicates that brokerage houses differ in charging commission at the same time there is no uniformity of charging account maintenance fee from clients. Moreover, investors maintain their own portfolio, while it is the responsibility of the brokerage house. Even, most of the investor accuse that their brokers do not provide them with contact note after trading. On the basis of survey results, investors are suggested to be responsive to both security market condition as well as services of brokerage houses.

In Bangladesh, most of the individual investors (55.26%) are salaried employees and tend to take capital market investment as secondary source of income. Moreover, they do not hesitate to take risk of investing large amount (TK 3, 00,000- TK 5, 00,000) of capital as they can earn 20%-30% profit per annum. The ratio between male and female investors is tremendous (9:1) which exhibit lack of knowledge of women in capital market as well as conservatism of Bangladesh (Annex-1). This also supported by the findings that the gender of the investors does have a significant effect on investment and preference. Demographic factors like education and occupation of the investors are found to be significant for investment, preference and consideration of buying shares.

SEC arranges training program time to time for investors. As a result, they are less likely to depend on market rumor, rather investor's judge fundamental bases or ERP/PE ratios before investing in a company. The awareness level is gradually increasing in a way that investors discontinue trading shares when price fluctuates enormously. Investors found IPO to be advantageous than secondary market but they invest in existing market share. Though mutual fund is a secured source of investment, but investors do not have much knowledge of this source.

For trading in stock market, an investor ought to open either cash or margin account with a market intermediary (broker house of merchant bank). Brokerage houses are suppose to provide their clients (investors) with various services such as account opening, charging reasonable commission, trading share as per instructions etc. But the survey shows that brokerage houses or merchant banks are not following instruction of SEC properly, they vary in charging commission, yearly account

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maintenance fee etc. therefore, dissatisfied investors sometimes inclined to choose another broker house suggested by their friends. Inconvenient communication is another reason for leaving a broker house. Even though, brokers are responsible to issue contact note after each trading as well as maintain portfolio, most of them do not maintain such services.

To maintain a long term relationship with the capital market and earning steady profit, individual investors should be aware of responsibilities like they should be honest and not be involved with issuer companies to create artificial price through syndication and manipulation, not to influence issuer companies to inflate financial report and declaring artificial dividend, not to influence/ misguide others investors for trading, not to open more than one account in different brokers and merchant banks for ill motives, not to involve for spreading rumor or phony information in the market.

Investors have lots of obligation towards their brokers to ensure accuracy of brokerage house performance. Such as; a client should know the client code number for trading, terms and condition attached in the form for margin facilities. In addition, They should set rate of commission for trading by negotiation, take acknowledgement receipt (contact paper) for share deposit with the signature of the authorized person of stock-broker, take money receipt for fund deposit with the signature of the authorized stock-broker.

8. Limitations of the Study

In this study, the sample size is limited to 76 individuals only. A large sample size can draw the actual picture of capital market. Besides, institutional and foreign investors were ignored due to time limitation. Moreover, respondents were selected from brokerage houses of DSE only. One of the important limitations of this study is that the data were collected from August, 2010- September, 2010. This study has not been conducted over an extended period of time having both ups and downs of stock market conditions which has a significant influence on investor' s buying pattern and preferences.

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Appendix 1: Survey result

a) Demographic Factors:	
Factors	Description
Current Occupation:	Most of the individual investors are involved with other occupation along with investment in stock market. They consider return from investment as second source of income. 55.26% are service holder, 39.47% are self employed. In addition, retired people occupy 5.26% of total sample.
Gender:	Numbers of male investors (89.47%) are more than the women investors (10.53%).
Age:	Age of investors ranging from 25 to 56. Among them 57.89% are 30-39 years old, 21.05% are 20-29 years old, 15.79% indicates people of 40-49 years old, and rest of the 5.26% shows investors ageing 50 or above.

b) Response to capital market:	
Invested amount:	32.89% investors invest BDT 3,00,000-BDT 5,00,000, whereas 23.68% invest BDT 1,00,000- BDT 2,00,000. 22.37% investors have below BDT 1,00,000 in capital market and only 21.05% are ready to take the risk of more than BDT 5,00,000.
Type of account:	Most of the investors have cash account (47.37%), and 26.32% have margin account and 23.68% have both account. [Figure: 2]
Loan amount:	Investors who have margin account borrow 100% of their invested amount (60%). 26.67% borrow 90% on capital invested, 6.67% borrow 70% and 80% respectively.
Preference for investment:	Secondary share seems to be lucrative for most of the individual investors as this category occupies 57.89%. After that the preference come for both IPO (Initial Public Offering) and Secondary Share 13.16%, 10.53% like to invest in IPO as well as in all categories. But surprisingly no one has a preference for mutual fund.
Merits of IPO, Secondary Share, Mutual fund:	IPO's significant advantages are low risk (31.58% response), high profit (28.95% response), and low price fluctuation (2.63% response). But 36.84% do not give their opinion. Secondary share market is preferred for high profit margin (52.63% individual prefer), but 47.36% investors did not mention anything about its merits. Again, surprisingly 86.84% respondents show their ignorance toward mutual fund. Only 13% investors say that they choose mutual fund for low risk (7.895 prefer) and 5.26% for low price fluctuation.
Demerits of IPO, Secondary Share, and Mutual fund:	71.05% say that IPO has no disadvantages. But rest of 7.89% say that investment in IPO keep money idle for so long, 10.53% think that it is time consuming, 5.26% perceive that the result is unforeseen. In addition, 2.63% think that there is less scope to make profit as well as sometimes companies delay to refund money. Secondary share seems to be risky to 42.11% respondents and chance of price fluctuation due to fake news in the market to 15.79% respondents. But rests of 42% do not find any demerits. In addition, mutual fund is not preferred to 5.26% for low profit and to 13.16% for price fluctuation.
When share price fluctuates:	57.89% investors sometimes stop buying/selling, 21.05% respondents always stop buying/selling, 13.16% stop buying but continue selling, and 21.05% stop selling but continue buying.

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Profit earned per annum:	26.32% earn 5%-10%, 28.95% make 10%-20% profit, 31.58% gets 20%-30% profit and only 2.63% gain more than 30% per year.
Sectors preferred to invest	92% investors think that financial sectors i.e. bank, leasing etc are secured source of investment. 13.16% like to invest in textile, power sector, FMCGs (Fast Moving Consumer Goods, pharmaceuticals).
Factors considered before buying	42.11% consider fundamental base, 35.53% buy on the basis of ERP, P/E, company reputation is deemed to be important to 10.53% investors and stock price is important factors to 5.26%. . [Figure: 3]

c) Brokerage house services and expectation (BH):	
Loyalty with BH:	48.68% individual is with the same BH for 1-2 years, 43.42% being loyal to their BH for 2-4 years. Only 2.63% stay for more than 4 years.
A/C opening amount:	Account opening amount differs from one BH to another. 26.32% investors say their BH charge BDT500-700, 23.68% indicate TK 20,000. 18.42% point to TK 800-TK. 1000 and Tk 1800-TK 2200. The BH who are providing margin account open account with the amount of TK 1,00,000- TK. 2,50,000 say 23.68%.
A/C maintenance Fee:	Account maintenance fee differs also from TK. 200 to TK 1000. 52.63% investors pay Tk450-TK 500, 28.95% pay TK 200-350 per year, only 5.26% point to TK 700-TK 1000 as a/c maintenance charge.
Commission Charged:	Commission charged varies from 0.40% to 0.60%.
Reasons for choosing a brokerage house:	Like other service oriented organizations, investors prefer a particular Brokerage House for various reasons. Such as, 57.89% choose because his/her friend in a client of that house. Again, 57.89% say they choose it for convenient communication. Transparency is another reason that attracts 28.95% investors. Cooperation of broker in buying or selling of shares is also another factor for choosing (5.26% say) a particular house.
Miscellaneous Services from Brokerage House:	Contact note should be provided by the brokerage house to its client after every trading. But most of the individuals (65.79%) do not get it. 78.95% Investors manage their own portfolio and only 7.89% investors portfolios are managed by the Brokerage House.
Previous experience with other Brokerage House:	Only 28.95 % admit that they were with other houses before. The vital reason for leaving the house is poor service (63.64%). Except that high commission (27.27% response), poor communication (27.27% response) and corruption (9.09% say).
Expectations	39.47% want quick service/ frequent communication from their brokerage house, 28.95% expect less commission/ yearly maintenance fee to be charged by the brokers, another 26.32% want more margin loan facilities, 18.42% emphasis on environmental factors, where 2.63% want 24 hours online/ call center services.

Appendix 2

In settlement of trade, except Z category securities, the buying and selling brokers deposit cheque and securities respectively to the clearing house on 2nd day of the trade (T+1) and the clearing house deliver securities and give cheque to the buying and selling broker respectively on 4th day of the trade (T+3). For settlement of the trades of the securities under Z category the aforesaid periods are T+3 and T+7 respectively. P/E ratio simply means the multiples of earnings at which the stock is selling. For example, if a stock's most recent 12 months earning is Tk 5 and its is selling now at Tk 150, then it is said that the stock is selling for a multiple of 30.

* Price to Book Value(P/B): This is the ratio of stock price to per share stockholders' equity.

* Price to Sales Ratio(P/S): A company's stock price divided by its sales per share.

* Secondary Market: A market in which existing securities are traded; as opposed to a primary market where securities are sold for the first time.

* Initial Public Offering (IPO): Means first offering of security by an issuer to the general public.

* Margin Account: A margin account is an account offered by brokerages that allows investors to borrow money to buy securities. An investor might put down 50% of the value of a purchase and borrow the rest from the broker. The broker charges the investor interest for the right to borrow money and uses the securities as collateral.

* Mutual Fund: An investment vehicle that is made up of a pool of funds collected from many investors for the purpose of investing in securities such as stocks, bonds, money market instruments and similar assets. Mutual funds are operated by money managers, who invest the fund's capital and attempt to produce capital gains and income for the fund's investors. A mutual fund's portfolio is structured and maintained to match the investment objectives stated in its prospectus.

Descriptive Statistics of the response values of the variables under study:

Description of the variables	N	Mean	Std. Deviation
Education of the respondents	74	1.47	.503
Occupation of the respondents	66	1.39	.492
Age of the respondents	74	1.68	.908
Gender of the respondents	74	1.05	.228
Investment of the respondents	42	2.57	1.016
Type of A/C	74	1.76	.824
Borrowed on margin a/c	30	1.60	.894
Preference for investment	74	2.54	1.137
Consideration before buying company's share	46	2.57	.779
Which sector you find more profitable?	76	1.32	.697