

# Performance Analysis of Small Investors in the Capital Market of Bangladesh

## (A Case Study of Chittagong Stock Exchange [CSE])

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### Abstract

The main study of this research is to find out the performance of Small Investors in the capital market and also highlight the activity of Chittagong Stock Exchange (CSE). The theoretical background of the study includes brief introduction of Bangladesh stock market with its structure and different regulatory and intermediary organizations. This paper assesses the Intensifying of Stock Market in Bangladesh based on Chittagong Stock Exchange (CSE). Information collected from primary and secondary data along with identifying the major dominant factors and some problems or lacks of stock market which is greatly obstacle to intensifying the stock market in Bangladesh. We have collected information from 150 respondents, which are considered as our sample and each respondent are sampling unit. The questionnaire was designed in such a way that maximum information may be obtained within short time. we used the technique of purposive sampling. The data was collected by interviewed method. The main sources of secondary data are the portfolio published by CSE and official website and magazines published by CSE. The information was arranged and analyzed in different tables. After processing data we perform statistical test such as chi square test and also run logistic regression model for the data. The study warrants the continuity of research for a conclusive analysis and synthesis concerning the level of efficiency of the less developed market.

**Keywords:** Stock market, Small investors, performance analysis, Chittagong Stock Exchange (CSE).

### 1. Introduction

Stock market is an essential part of capital Market. The economy if a country largely depends on a strong capital market. Contribution of any stock exchange generally leads to economic growth by increasing the funds to finance industry and other enterprise.

Stock exchange is an independent company formed by shareholders member .It can take various decisions. Independently. The objective of Stock exchange is to provide a market place along with facilities for bringing together the buyer and seller of securities, promote just and equitable principal of trade, protect the interest of the investors..Two stock markets in Bangladesh, one in Dhaka entitled Dhaka Stock Exchange (DSE) and other in Chittagong namely Chittagong Stock Exchange (CSE) are in operation in Bangladesh. The Securities and Exchange Commission (SEC) was established under the SEC acts, 1993 as a central regulatory agency overseeing the activities of the entire capital market including issue of capital, monitoring the issue of stocks and operation of the stock market including regulating of the portfolio market. Generally speaking the stock market is rarely taken by surprise. The market index generally reflects the current status of the economy as a whole. Hence the stock market by and large considered to be a barometer of prevailing economic conditions. The fluctuation in market prices indicates the intense investment activity in the stock market, with each operator trying to outperform the rest.

The stock market, with all its price fluctuation and uncertainties, is the heart of a Free enterprise system, continuously balancing risks and rewards. By far the most active secondary market, and the most important one is the stock market. Most of the large investment banking houses operates brokerage departments. Investing in stock market is always interesting, challenging and rewarding. Investing because the stock market is dynamic, there is never a dull moment. Challenging because it is uncertain, the only certainty is its uncertainty. Rewarding, because it is risky. Risky and rewards go together. The primary motive of buying a share is to sell it subsequently at a higher price .In many cases, dividends are also expected. Thus dividends and price changes constitute the return from investing in shares. Bangladesh is on the verge of a significant breakthrough in terms of both of international investor confidence and significant inflow of new investment funds. In this context stock market development can help to reach her goal. Economic development is greatly dependent on the volume of a country's investment. Stock market is one of the strongest mechanisms to convert the saving id a country into investment. Index is often told to be the barometer of the economy. It is true if there is no major manipulation in the market. The emerging economy heralds the rise of emerging industries. They in turn, lead to the growth of capital market system. Thus in Bangladesh stock market is a major part in the economy.

In Bangladesh stock market facing some evolutionary problem. These are as follows:- a) Although there are almost 4 000 large industry currently opening in Bangladesh, less than 200 of them become enlisted with stock market. b) The mobile companies of Bangladesh ( Aktel, Citycell, Banglalink, Teletalk and Warid) are not listed companies. These companies are operating throughout the country and every year making a huge amount of profit. Foreign Investors are also not becoming members of the share market. As consequences, general investors cannot get the opportunity to invest in these profitable Organizations. c) The Large Government Organizations also are not enlisted with Share Market. If Multinational Firm could increase the interest of individual investors in investors in investment and a part of the profit of these firms would reach to these investors. d) Small investors have a little conception in share categories. Thus many of them deceived when they buy share. e) Few often SEC takes strict and appropriate measure to maintain the discipline in secondary market, but most of the time they cannot maintain this behavior. f) Knowledge of general investors' concerning the structure of secondary market and share business is limited. Existence of asymmetric information is large and for this reason secondary market is not expanding appropriately. g) In secondary market, investment gas been increased and index also has been rising from last few years. But comparing with other stock exchange in the world this is very negligible.

## 2. Objectives of the study

The principal objective of the study is to evaluate the performance of CSE. To accomplish this objective, following specific objectives have been covered:-

1. To highlight the activity of CSE.
2. To determine the factors which create capital market unstable by small investor of CSE
3. To study the association between last year achieved profit and other background of characteristics.
4. To study the factor of influence the share business.
5. To identify the problems facing in the CSE in performing different functions to respondents.
6. To suggest the policy means of improving the performance of CSE.

## 3. Research Methodology

The study is both theoretical and empirical. Both primary and secondary data have been used in the study. The word population is the aggregate or the whole set of individual whose characteristics are of interest to us. In conducting any survey it is essential at first to define the population clearly. In many survey customer of CSE who have engaged the share business in area of Chittagong consider as population. In the survey, I have collected information from 150 respondents, which are considered as our sample and each respondent are sampling unit. The questionnaire was designed in such a way that maximum information may be obtained within short time. Thinking the real problems and resources of the CSE. Most of the ambiguous matters were avoided. In this study, we used the technique of purposive sampling. The data was collected by interviewed method. The questionnaire was distributed among them randomly selected respondents. They were given short time to fill in the questionnaire after a short description of the purpose of the study. So it may be reasonable expected that the non sampling error due to interviewer are minimum.

The main sources of secondary data are the portfolio published by CSE and official website and magazines published by CSE. The information was arranged and analyzed in different tables. After processing data we perform statistical test such as chi square test and also run logistic regression model for the data. We use SPSS 16.0 Version for compute all tables, cross tables of my research work.

## 4. Historical Background of the CSE:

The Chittagong Stock Exchange (CSE) is a nonprofit making organization. It was incorporated on 1st April 1995 as a limited company by guarantee. After six month, on 10th October 1995 floor trading was started with open cry- out auction system. In the backdrop of a strong need to institute a dynamic automated and transparent stock exchange in the country, seventy reputed business personalities under the leadership of Mr. Amir Khosru Mahmud Chowdhury MP, the founder president established this bourse in the commercial capital Chittagong. Only 30 securities were listed on the first day trade when market capitalization stood at US\$ 0.2 Billion. Now CSE is a completely automated exchange with screen based trading facility on countrywide communication network.

The Chittagong stock exchange will create an effective, efficient and transparent market of international standard to save and invest in Bangladesh in order to facilitate the entrepreneurs to raise capital and accelerate industrial growth for overall benefit of the economy.

### Mission of the CSE:

The Chittagong Stock Exchange will create a successful well-organized and transparent market of international standard to save and invest in Bangladesh in order to facilitate the competent entrepreneurs to raise capital and speed up industrial growth for overall benefit to the economy.

### Objectives of the CSE:

The prime objectives of the CSE are to create a nation-wide stock market also beyond the national boundary, which will simultaneously act as a platform for industrial entrepreneurs and general investors. Explicitly the objectives of CSE are following:

- To develop a strong platform for the entrepreneurs for raising capital.
- To provide an investment opportunities for small and large scale investors.
- To develop a transparent market ensuring investors interest.
- To provide a fully automated trading, Clearing and settlement system to ensure quick, easy, accurate and easily accessible to all transactions.
- To attract non-resident Bangladeshis to invest in Bangladesh Stock Market.

### Management:

The Chittagong Stock Exchange has a policy making body of 18 members, of whom 6 are nominated and 12 are elected. This Board comprised of one president, three vice presidents and 14 Directors. There is an independent secretarial headed by a Chief Executive Officer (CEO).

### CSE at a glance:

Type of Organization	: Public Limited Company by Guarantee
Date of Establishment	: 8 <sup>th</sup> June 1993
Registered add	: 1080 Shekh Mojib Road Agrabad, Ctg. BD
Authorized Capital	: Tk. 150 Mil \$ 2.78 Mil
Paid-up Capital	: Tk. 21.3 Mil \$ 0.72 Mil
No. of Members	: 185 all members are corporate bodies
No. of Listed Companies	: 216(Total 231 securities)
No. of Listed Mutual Funds	: 14
No. of Listed Debentures	: 1
CSE All Share Index	: 1357.21
CSE-30 Index	: 352.15
Market Capital	: Tk. 56.36 Bil \$ 1.037 Bil
Trading Days	: Saturday to Thursday
Settlement System	: Daily Netting- for A group scrips +3(Pay-in) & T+5(Pay-out) Trade for Trade – for B group scrips Direct Settlement between Member to Member for Z group scrips.
Cost of Trade	: Commission –0.25% of the Transacted from both buyers & sellers.

### Trading Hours:

Pre-Opening Session	: 10:00 am-10:20 a.m.
Opening Session	: 10:20 am-10:30 a.m.
Trading Session	: 10:30 am-14:00 p.m.
Closing Session	: 14:00 pm-14:10 p.m.
Close Price Trade	: 14:10 pm-14:30 p.m.
Post Closing	: 14:30 pm-15:15 p.m.

### Procedure of Groupings:

It was a proposal of CSE to Group to securities to ensure the quality of trading through market adjustment. and as per this proposals to uphold the interest of investors implements the system SEC facilitated this grouping system concentrating two Exchange via-a-vis Dhaka Stock Exchange & Chittagong Stock Exchange. This grouping system also ensures timely reflection of market information about the listed companies, which helps to identify the strengths and weaknesses based on their performance.

Categories of Grouping:

- A – Category Companies;
- B – Category Companies;
- Z – Category Companies;
- G – Category Companies;

Details of grouping are given below:

#### A – Category Companies:

Companies, which are regular in holding the current annual general meetings and have declared at the rate of ten percent or more the last English Calendar year:

Settlement Cycle in Order:

Group-A

Trading day	T + 0
Settlement day/Pay in	T + 1
Pay out	T + 3

**B – Category Companies:**

Companies, which are regular in holding the current annual general meetings and have failed to declare dividend at least at the rate of ten percent or more the last English Calendar year:

Settlement Cycle in Order:

Group-B

Trading day	T + 0
Settlement day/Pay in	T + 1
Pay our	T + 3

**G – Category Companies:**

G categories are those groups that are generally known as Green field companies. First three years they are not going into commercial operation, only one company has in this group, in Lafarge Surma Cement.

Settlement Cycle in Order:

Group-G

Trading day	T + 0
Settlement day/Pay in	T + 1
Pay our	T + 3

**Z – Category Companies:**

Companies, which failed to hold the current annual general meeting or have failed to declare pay dividend or which are not in operation for more that six months or whose accumulated loss after adjustment of revenue reserve, if any is negative and exceeded its paid up capital. Provided that the chief executive officer of the exchange may bring any other company under this category, if deemed necessary, with the prior written consent from the commission.

Settlement Cycle in Order:

Group-Z

Trading day	T + 0
Settlement day/Pay in	T + 1
Pay our	T + 3

**On the vases of the aforesaid information we can say that:**

Group ‘A’ companies maintain AGM regularly, declare higher dividend and earnings per share and also maintain higher share price and percentage change monthly. So the investors are interested to invest in this Group and earn higher profit. Group ‘B’ companies maintain AGM irregularly, declare higher dividend and earnings per share that Group ‘A’ and also offer lower share price and percentage change monthly. So the investors are not interested to invest in this group as not as Group ‘A’. That is why group ‘B’ is less preferable. Group ‘G’ companies are those which are going to commence their commercial operation within three years. At present their share price and monthly percentage change is higher than others due the investors’ expectation of higher interest in future. Group ‘Z’ companies; maintain AGM irregularly than others, their dividend and earnings per share varies time to time. Their share price and monthly percentage change also vary. In spite of this, the investors are investing in this group for cheaper share price and facility of daily trading.

**Rational of investing in different categories of securities:**

- Investment depends on company’s present condition
- Investment depends on the positions of the company which is comparatively good i.e., A & B.
- If bank interest rate is less than the rate of dividend declaration then investors invest their capital in the capital market in various scrip’s.
- AGM is one of the vital most important criteria for invest the capital in various groups.
- Dividend is one of the vital criteria for investment in different scrip’s by investors

**Investor’s preference of categories along with seasons:**

Most of them like group ‘A’ because

- They give highest dividend i.e., 10% or more;
- They maintain AGM regularly;
- Long-term investment is possible here
- Their overall performance is very is well all the time;

**Some of them like group ‘B’ because**

- They give dividend of less than 10%, Which is lower than group ‘A’,
- Held company AGM,

- Investment id possible here,
- Company performance is not so had.
- Some of them like group ‘G’ because
- Expectation of higher of profit in future;
- Some of them like group ‘Z’ because
- Lower price of share,
- All types of investor (old or new) can trade easily;
- Regular trade.

**Importance of Grouping:**

Grouping is important on the viewpoint of the investors-

- To make people concern in case of purchase share certificates,
- To asses strong and weak companies for the help of investors,
- To reduce the risk of the investors,
- To encourage weak companies for developing their position,
- To know the managerial effect and overall performance,
- To identify share position,
- To understand the companies performance.

**Limitation of Grouping:**

The old investors face the main problem of grouping system. The old investors purchase their share certificates prior to introducing grouping system. But after the implementation of this system in 2001, some of the companies fall down to lower group such as ‘Z’ which was completely disheartening for the investors holding those securities. At the same time, new investors lose their interest to purchase share certificates from ‘Z’ group. As a result the scrip’s ‘Z’ group loses their trading value, which was a big blow for the old investors. The criterion on grouping system is yet to be a matured one. The strength of any company doesn’t depend on AGM or declaration of dividend only. There are a lot of companies, which failed to declare dividend or Arrange Annual General Meeting (AGM) is spite of having sound financial condition.

**Recommendations:**

There are some benefits and problems in grouping system of SEC which is proposed by CSE. Some investors express their opinion in favor or grouping system. On the other hand some of the investors thinks that introduction of grouping system is completely unnecessary. As a whole it can be said that grouping system of SEC failing to satisfy the needs of various kind of investors. SEC classified the criteria based on arranging AGM and declaration of dividend. There are some prospective companies which are not holding AGM and declaring dividend regularly. But these companies are very strong in sense of their financial strength.

A few more words about grouping:

Some of the investors are thinking, why SEC is doing such grouping, and how they are benefited from it. Some other investors considering that grouping system is not very much helpful to them as they can’t base on it. They like to base higher profit is their first preference.

So, in fine, it can be said that grouping is necessary to assess the company position and to decide the company to invest. So it can play significant role for the investors to invest their capital in different scripts and thus to develop the capital market as a whole.

**5. Results and Discussion**

This chapter consists of some background characteristic of the respondents. Here age, monthly expenditure, educational qualification, use bank, professional training, interest of investment, source of investment money, present amount of money to invested, companies share in your hand, share categories, use of media, achieve profit, problem face in capital market, fill any training program, to influence sell/buy share securities, study AGM report, and number of similar other scheme of the respondents have been considered as the respondents characteristics. Tables and discussion are as follows-

**Table 5.1: Percentage distributions of respondent last year achieve profit according to the level of monthly expenditure:**

Monthly expenditure	Frequency	Percentage
below tk5000	18	12.0
below tk.10000	31	20.6
below tk.20000	35	23.4
tk.20000+	66	44.0
Total	150	100.0

**Comment:** From the above table it is observed that last year achieved profit is increased gradually with the level of monthly expenditure of the respondent.. That is when monthly expenditure of respondent is increased creating

capital market unstable for small investor in the area under the study.

**Table 5.2: Percentage distributions of respondent last year achieve profit according to the level of education qualification:**

Educational qualification	Frequency	Percentage
Graduation & Above	86	57.3
S.S.C to H.S.C	35	23.3
Primary & Secondary	29	19.4
Total	150	100.0

**Comment:** From the above table it is observed that last year achieved profit of graduation and above, of respondent is more than S.S.C to H.S.C and Primary & Secondary . The graduated and above respondent are more conscious about achieve profit and their future. As a result, it may create capital market unstable by the respondents who are graduate and above.

**Table 5.3: Percentage distributions of respondent last year achieve profit according to the level of job description:**

Job description	Frequency	Percentage
business	58	38.7
govt.	6	4.0
private	38	25.3
unemployed	7	4.7
student	37	24.7
others	4	2.6
Total	150	100.0

**Comment:** From the above table it is observed that last year achieved profit is more of the respondents who are business man than that of those are student, private job holder and other. The business man may want to extend their business, which may create capital market unstable by small investor in the area under the study.

**Table 5.4: Percentage distributions of respondent last year achieve profit according to the level of professional training:**

Professional training	Frequency	Percent
yes	64	42.7
no	86	57.3
Total	150	100.0

**Comment:** From the above table it is observed that there are 42.7% trained and 57.3% non trained respondent. That is why it may create capital market unstable by small investor in the area under the study.

**Table 5.5: Percentage distributions of respondent last year achieve profit according to the level of primary interest of investment:**

primary interest of investment	Frequency	Percent
yes	92	61.3
no	58	38.7
Total	150	100.0

**Comment:** From the above table it is observed that the respondent 61.3% are primary share holder. So that most of the respondents are primary share holder that is why may create capital market unstable by small investor in the area under the study

**Table 5.6: Percentage distribution of respondent last year achieved profit according to the level of secondary interest of investment:**

secondary interest of investment	Frequency	Percent
yes	125	86.7
no	25	12.7
Total	150	100.0

**Comment:** From the above table it is observed that the respondent (86.7%) is secondary share holder. So that most of the respondents are secondary share holder that is why may create capital market unstable by small investor in the area under the study

**Table 5.7: Percentage distribution of respondent last year achieved profit according to the level of source of investment money:**

Source of investment money	Frequency	Percent
saving	42	28.0
loan	24	16.0
other	84	56.0
Total	150	100.0

**Comment:** From the above table it is observed that last year achieved profit is the most of the respondents whose source of invested money from other and saving are obtaining more profit than that of those have source of invested money from loan. They want to extend their business, which may create capital market unstable by small investor in the area under the study.

**Table 5.8: Percentage distribution of respondent last year achieved profit according to the level of present amount of invested money:**

present amount of money invested	Frequency	Percent
below tk.40000	28	18.7
below tk.100000	35	23.3
below tk.500000	31	20.7
below tk.1000000	56	37.3
Total	150	100.0

**Comment:** From the above table it is observed that last year achieved profit of the respondents who have invested larger amount of present money are gaining more profit than that of those respondents who have invested less amount of present money. The respondents who have large amount of present invested money want to extend their business that result may create capital market unstable.

**Table 5.9: Percentage distribution of respondent last year achieved profit according to the level of problem face in the capital market to investment:**

problem face in capital market to investment	Frequency	Percent
Securities	28	24
CDBL charge	32	20
Loan manage problem	90	56
Total	150	100.0

**Comment:** From the above table it is observed that 24%, 20% & 56% face securities, CDBL charge & loan manage problem respectively. That is reason; this may create capital market unstable by small investor in the area under the study.

**Table 5.10: Percentage distribution of respondent last year achieved profit according to the level of chooses to buy shares securities in the capital market to investment:**

Chooses to buy shares securities	Frequency	Percent
falling condition	42	28.0
rising condition	62	41.3
stable condition	46	30.7
Total	150	100.0

**Comment:** From the above table it is observed that, most of the respondent chooses to buy Shares securities rising condition. That is reason; this may create capital market unstable by investor in the area under the study.

**Table 5.11: Percentage distribution of respondent last year achieved profit according to the level of chooses to sell shares securities in the capital market to investment:**

Chooses to sell shares securities	Frequency	Percent
falling condition	54	36.0
rising condition	75	50.0
stable condition	21	14.0
Total	150	100.0

**Comment:** From the above table it is observed that, most of the respondent chooses to sell Shares securities rising condition. That is reason; this may create capital market unstable by investor in the area under the study.

**Table 5.12: Percentage distribution of respondent last year achieved profit according to the level of influence to buy shares securities in the capital market to investment:**

Things to influence to buy shares	Frequency	Percent
only information basis	12.0	8.0
present market condition	110	73.3
analysis the AGM report	28	18.7
Total	150	100.0

**Comment:** From the above table it is observed that, most of the respondent consider buying share present market condition but does not consider analysis the AGM report. That is reason; this may create capital market unstable by investor in the area under the study.

**Table 5.13: Percentage distribution of respondent last year achieved profit according to the level of respondent age in the capital market to investment:**

Age of respondent	Frequency	Percent
20 to 30	68	45.3
31 to 40	38	25.3
41 to 50	32	21.3
51+	12	8.1
Total	150	100.0

**Comment:** From the above table it is observed that, the respondent whose age 20 to 40 are more eagerness than age 41 to 50+ to deal in share business. That is reason; this may create capital market unstable by investor in the area under the study.

**Table 5.14: Percentage distribution of respondent last year-achieved profit according to the level of respondent belongs to number companies share securities in the capital market to investment**

No. of companies share	Frequency	Percent
below 10	92	61.3
above 10	58	38.7
Total	150	100.0

**Comment:** From the above table we see that, most respondent belongs to the below 10 companies shares securities. That is reason; this may create capital market unstable by investor in the area under the study

**Table 5.15: Percentage distribution of respondent last year achieved profit according to the level of respondent are filling training program about capital market.**

Fill training program	Frequency	Percent
Yes	94	62.7
No	56	37.3
Total	150	100.0

**Comment:** From the above table we see that, 62.7% respondent are filling training & 37.3% respondent are not filling training program about capital market.

## 6. Chi square test

A chi-square test is a statistical test commonly used for testing independence and goodness of fit. Testing independence determines whether two or more observations across two populations are dependent on each other. In both cases the equation to calculate the chi-square statistic is as follows:

$$X^2 = \sum_{i=1}^n \frac{(O_i - E_i)^2}{E_i}$$

Where,  $O_i$  = the observed frequency and  $E_i$  = the expected frequency and  $n$  = the number of cells.

The effect of Yates' correction is to prevent overestimation of statistical significance when at least one cell of the table has an expected count smaller than 5. The Yates' correction statistic is as follows:

$$X_{Yates}^2 = \sum_{i=1}^N \frac{(|O_i - E_i| - 0.5)^2}{E_i}$$

**Table 6.1: Association between last year achieved profit and invested present amount of money of the respondents:**

Hypotheses consider:

$H_0$ : There is no relation between last year achieved profit and invested present amount of money of the respondent.

$H_1$ : There is significance relation between last year achieved profit and invested present amount of money of the respondent.



last year achieved profit * Present amount of money invested		Present amount of money invested				Total		
		Below tk.40000	Below tk.100000	Below tk.500000	Below tk.1000000			
last year achieved profit	below tk.10000	Count	12	2	3	4	20	
		% within last year achieved profit	60%	10%	10%	20%	100.0%	
	below tk.30000	Count	10	23	4	1	38	
		% within last year achieved profit	26.3%	60.5%	10.5%	2.7%	100.0%	
	below tk.50000	Count	2	11	13	6	32	
		% within last year achieved profit	6.3%	34.4%	40.6%	18.7%	100.0%	
	below tk.100000	Count	1	1	11	47	60	
		% within last year achieved profit	1.6%	1.6%	18.3%	78.3%	100.0%	
	Total		Count	25	37	30	58	150
			% within last year achieve profit	16.7%	24.7%	20.0%	38.6%	100.0%

**Chi-Square Test:**

Test	Value	df	Sig. (2-sided)
Pearson Chi-Square	146.567	9	.000

**Comment:** Since P-value is 0.000 with 9 df, So we may reject the Ho. That means there is significance relation between last year achieved profit and invested present amount of money of the respondent.

**Table 6.2: Association between last year achieved profit and belongs to the number of companies' share of the respondents:**

last year achieved profit * number of companies share		number of companies' share		Total		
			below 20	above 20		
last year achieved profit	below tk.10000	Count	17	3	20	
		% within last year achieved profit	85%	15%	100.0%	
	below tk.30000	Count	31	7	38	
		% within last year achieved profit	81.7%	17.1%	100.0%	
	below tk.50000	Count	28	4	32	
		% within last year achieved profit	87.5%	12.5%	100.0%	
	below tk.100000	Count	19	41	60	
		% within last year achieved profit	31.7%	68.3%	100.0%	
	Total		Count	95	55	150
			% within last year achieved profit	63.3%	36.7%	100.0%

Hypotheses consider:

H<sub>0</sub>: There is no relation between last year achieved profit and belongs to the number of companies' share of the respondent.

H<sub>1</sub>: There is significance relation between last year achieved profit and belongs to the number of companies' share of the respondent

**Chi-Square Test:**

Test	Value	df	Sig. (2-sided)
Pearson Chi-Square	34.166	3	.000

**Comment:** Since P-value less than 0.05 (level of significance) with 3 df, So we may reject the null hypothesis. Then we conclude that there is significance relation between last year achieved profit and belongs to the number of companies' share of the respondent.

**Table 6.3: Association between last year achieved profit and primary interest of investment of the respondent**

Hypotheses consider:

H<sub>0</sub>: There is no relation between last year achieved profit and primary interest of investment of the respondent.

H<sub>1</sub>: There is significance relation between last year achieved profit and primary interest of investment of the respondent.

last year achieved profit * primary interest of investment		primary interest of investment			Total
			yes	no	
last year achieved profit	below tk.10000	Count	12	8	20
		% within last year achieved profit	60%	40%	100.0%
	below tk.30000	Count	15	23	38
		% within last year achieved profit	39.5%	60.5%	100.0%
	below tk.50000	Count	13	19	32
		% within last year achieved profit	40.6%	59.4%	100.0%
	below tk.100000	Count	45	15	60
		% within last year achieved profit	75%	15%	100.0%
Total		Count	85	65	150
		% within last year achieve profit	56.7%	43.3%	100.0%

**Chi-Square Test:**

Test	Value	df	Sig. (2-sided)
Pearson Chi-Square	12.101	3	.007

**Comment:** Here we observe that, our test is significant with 3 df. So we can say that there is significance relation between last year achieved profit and primary interest of investment of the respondent.

**Table 6.4: Association between last year achieved profit and secondary interest of investment of the respondent**

last year achieved profit * secondary interest of investment		secondary interest of investment			Total
			yes	no	
last year achieved profit	below tk.10000	Count	12	8	20
		% within last year achieved profit	60%	40%	100.0%
	below tk.30000	Count	32	6	38
		% within last year achieved profit	84.2%	15.8%	100.0%
	below tk.50000	Count	28	4	32
		% within last year achieved profit	87.5%	12.5%	100.0%
	below tk.100000	Count	53	7	60
		% within last year achieved profit	88.3%	11.7%	100.0%
Total		Count	125	25	150
		% within last year achieved profit	83.3%	16.7%	100.0%

Hypotheses consider:

Ho: There is no relation between last year achieved profit and secondary interest of investment of the respondent.

H<sub>1</sub>: There is significance relation between last year achieved profit and secondary interest of investment of the respondent.

**Chi-Square Test:**

Test	Value	df	Sig. (2-sided)
Pearson Chi-Square	8.998	3	.029

**Comment:** Here we may reject the Ho because P-value less than 0.05 with 3 df. That means, there is significance relation between last year achieved profit and secondary interest of investment of the respondent.

**Table 6.5: Association between last year achieved profit and educational qualification interest of investment of the respondent**

Last year achieved profit * Educational qualification		Educational qualification			Total	
last year achieved profit	below tk.10000		graduation & above	S.S.C to H.S.C	Primary & Secondary	
		Count	12	5	3	20
	% within last year achieved profit	60%	25%	15%	100.0%	
	below tk.30000	Count	29	3	6	38
		% within last year achieved profit	76.3%	7.9%	15.8%	100.0%
	below tk.50000	Count	22	6	4	32
		% within last year achieved profit	68.7%	18.7%	12.6%	100.0%
	below tk.100000	Count	21	13	26	60
		% within last year achieved profit	35.7%	21.7%	43.3%	100.0%
	Total		Count	84	27	39
		% within last year achieved profit	56%	18%	26%	100.0%

Hypotheses consider:

Ho: There is no relation between last year achieved profit and educational qualification interest of investment of the respondent.

H<sub>1</sub>: There is significance relation between last year achieved profit and educational qualification interest of investment of the respondent.

**Chi-Square Test**

Test	Value	df	Sig. (2-sided)
Pearson Chi-Square	26.447	6	.000

**Comment:** This result is highly significant because of P-value 0.000 with 6 df. So we find a significance relation between last year achieved profit and educational qualification of investment of the respondent.

**Table 6.7: Association between last year achieved profit and problem face in capital market to investment of the respondent.**

Last year achieved profit * problem face in capital market to investment		problem face in capital market to investment			Total	
last year achieved profit	below tk.10000		securities	CDBL change	loan manage problem	
		Count	6	2	12	20
	% within last year achieved profit	30%	10%	60%	100.0%	
	below tk.30000	Count	4	3	31	38
		% within last year achieved profit	10.5%	7.8%	81.7%	100.0%
	below tk.50000	Count	8	4	20	32
		% within last year achieved profit	25%	12.5%	62.5%	100.0%
	below tk.100000	Count	18	20	22	60
		% within last year achieved profit	30%	33.3%	36.7%	100.0%
	Total		Count	36	29	85
		% within last year achieved profit	24.0%	19.3%	56.7%	100.0%

Hypotheses consider:

Ho: There is no relation between last year achieved profit and problem face in capital market to investment of the respondent.

H<sub>1</sub>: There is significance relation between last year achieved profit and problem face in capital market to investment of the respondent.

**Chi-Square Test**

Test	Value	df	Sig. (2-sided)
Pearson Chi-Square	25.913	6	.000

**Comment:** Since P-value less than 0.05 with 6 df. So we may reject the Ho. That means, there is significance relation between last year achieved profit and problem face in capital market to investment of the respondent.

**7. Logistic regression analysis**

This section consist multivariate analysis suggests that most influential factor which affecting respondents for being higher tendency towards creating the capital market unstable. To determine the most important factors of the respondents for being higher tendency towards creating the capital market unstable, we fitted logistic

regression. For a single variable, the logistic regression model is of the form

$$\text{Prob (event)} = \frac{1}{1 + e^{-(\beta_0 + \beta_1 x)}}$$

Where  $\beta_0$  and  $\beta_1$  are the regression co-efficient estimated from the data, x is the independent variable and e the base of natural logarithm.

For more than one independent variable, the model assumes the form

$$\text{Prob (event)} = \frac{1}{1 + e^{-z}}$$

$$\text{Where } z = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_p X_p$$

The model is to be written in terms of the log odds of event occurring. This is called logit;

$$\ln \left( \frac{\text{prob(event)}}{\text{prob(noevent)}} \right) = \beta_0 + \beta_1 X_1 + \dots + \beta_p X_p$$

Here we consider, last year achieved profit as 1 and last year achieved no profit as 0.

**Table 7.1: Logistic regression coefficient and odd ratio of the selected factors.**

Background variables	B	Standard Error	Exp(B)
<b>Job description</b>			
Student			1.00
Govt.	1.785	0.335	.726
Private	1.545	0.361	.656
Unemployed	2.405	1.469	.547
Business	-.262	.740	.842
Others	1.423	1.642	.210
<b>Source of investment money</b>			
Saving			1.00
Loan	1.054	1.203	2.805
Other	1.734	.802	3.074
<b>present amount of money invested</b>			
Below tk.40000			1.00
Below tk.100000	-1.897	2.820	.152
Below tk.500000	.663	1.220	1.615
Below tk.1000000	1.514	1.997	3.927
<b>Chooses to buy shares securities</b>			
Falling condition			1.00
Rising condition	3.213	1.300	2.843
Stable condition	.313	.699	1.467
<b>Educational qualification</b>			
Primary & Secondary			1.00
Graduation & Above	2.917	.6163	3.567
S.S.C to H.S.C	2.083	.877	2.456
<b>problem face in capital market to investment</b>			
Securities			1.00
CDBL charge	-.561	.628	.571
Loan manage problem	-.191	.661	.772
<b>Things to influence to buy shares</b>			
Only information basis			1.00
Present market condition	.090	.645	1.390
Analysis the AGM report	.063	.611	1.118
<b>Age of respondent</b>			
20 to 30			1.00
31 to 40	-.978	.639	.826
41 to 50	-1.180	.588	.545
51+	-3.727	.815	.321
<b>No. of companies share</b>			
Above 10			1.00
Below 10	2.229	.463	.609

From Logistic regression table it is observed that the respondents who are businessman, their last year achieved profit are .842 times more likely than the respondents who are students. Similarly, government, private, unemployed and others last year achieved profit are .726, .656, .547 & .210 times more likely than the respondents who are students respectively. Also it is observed that those source of invested money from others their last year achieved profit are more than 3.074 times likely than that of respondent whose respondent source of invested money from saving and so on. We found that those present amount of invested money below tk 10,00000, their last year achieved profit are more than 3.927 times likely than that of respondent whose respondent present amount of invested money tk 40000 and so on. From table we see that those Chooses to buy shares securities rising condition, their last year achieved profit are more than 2.843 times likely than that of respondent whose respondent Chooses to buy shares securities falling condition and so on. It is observed that the respondents who are graduate & above, their last year achieved profit are 3.567 times more likely than the respondents who are primary & secondary educated and so on. The respondents who are problem face in capital market to investment by loan manage problem, their last year achieved profit are .772 times more likely than the respondents who are problem face in capital market to investment by securities and so on. It is found that those Chooses things to influence to buy shares present market condition, their last year achieved profit are more than 1.390 times likely than that of respondent whose respondent Chooses things to influence to buy shares only information basis and so on. From table we also see that the respondents whose age 31 to 40, their last year achieved profit are .826 times more likely than the respondents whose age 20 to 30. Similarly, the respondents whose age 41 to 50 & 51+ their last year achieved profit are .545 & .321 times more likely than the respondents whose age 20 to 30. Finally we observed that the respondents whose companies shares below 10, their last year achieved profit are .609 times more likely than the respondents whose companies shares above 10.

## 8. Recommendation

All Investor should to be more careful and consider couple of think when he/she invest money in market. It is important for the investors, government and the regulators to understand their respective faults and work on it. Rather than putting the blame on each other. For this reason a few recommendations have been provided in the paper. Which are:

1. Never sell your valuable property only to invest in share market
2. If you are not well educated about our share market than only invest in primary share of reputed companies and don't take risk anyway.
3. Try to attend in seminars which are conducted by stock exchanges to teach investors about the current condition and investment policy of share market.
4. Discuss with educated and experienced people to learn about share market and Read newspapers, books, etc to learn yourself about share market
5. Invest in Secondary market very meticulously when you have confident that you know well about the secondary market.
6. Never and Never invest only hear the fake information about the condition of various companies. Many evil people make rumor to plunder the hard earned money of small investors. And Always keep it mind that invest in share market is like invest in other risky business. Nobody can earn money here only by luck
7. Regulators should adopt new technologies like surveillance software to monitor trading activities. SEC should appoint more qualified officials for market research and in other necessary areas. SEC officials should perform their job honestly according to law. They should not work for market manipulators and their decision should serve interest of general investor and other stakeholders of the market.
8. Last but not least, serious act with prudence to strengthen our share market and beware of manipulators. And the government of Bangladesh may be under pressure to intervene in order to protect the hard earned money of the small investors from being lost due to this unusual crash of the stock market. So, this is the right time to work together (Government as well as other financial institutes) to decide what actions to take to save the market from further falls.

## 9. Conclusion

Bangladesh emerged as an independent sovereign country in the year 1971. But till now, the industrial development of our country is still poor and for rapid industrialization, formation of capital is the most important element. But it is not easy to procure through capital market with proper support of stock market. Since the introduction of CSE it contributed to the development of capital market in Bangladesh. It can be said with certainty that the achievements and success gained by CSE can be attributed for its and timely decision. CSE is now working to launch derivatives products in the market. With this view and to create awareness among the brokers, investors and other market players, CSE conducted a series of seminar and workshops. I hope that, by introducing more products and services in the stock market CSE will able to improve its performance much better & compete with other famous stock exchanges in the sub-continent and at the same time it will help to

accelerate economic development of our beloved country.

The whole study consisting of articles, newspapers, investigation report and result of self-administered questionnaire shows that majority of general investors in Bangladesh stock market don't have enough knowledge about the stock market. So, they fail to make good investment decision. That's why they buy shares depending on rumor and artificial financial report of companies. It was found that some illiterate investors even don't know about the company and its business operation when they buy share of the company. Even some investors keep friends, relatives as the operator of their BO ac- counts.

Capital market of Bangladesh is one of the most important sectors of country's economy. The growth of the market indicates growth of economy. The capital market of Bangladesh has a huge number of investors. A lot of them are educated and from middle class family. These investors invest their little savings in the market. To secure their investment and growth of the country government can take necessary initiatives. It was found in the investigation report that manipulators who were behind this debacle were also liable for stock market crash of Bangladesh

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### **Acronyms**

BO = Beneficiary Owners  
DSE = Dhaka stock exchange  
CSE = Chittagong stock exchange  
SEC = Security and exchange commission  
BB = Bangladesh Bank  
AGM = Annual general meeting  
DVP = delivery versus payment  
CEO = Chief Executive Officer  
IPO = Initial public offerings  
CSCX = CSE selective categories index  
NAV = Net asset value  
CPD = Centre for Policy Dialogue  
SLR = Statutory Liquidity Ratio  
MC = Market Capitalization  
EPS = Earnings per share  
FDI = Foreign direct investment