

**Stock market crash of Bangladesh in 2010-11: Reasons & roles
of regulators**

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| DEGREE THESIS | |
| Arcada | |
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| Degree Programme: | International Business |
| | |
| Identification number: | 11497 |
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| Title: | Stock market crash of Bangladesh in 2010-11: Reasons & roles of regulators |
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| <p>Abstract:</p> <p>The aim of the thesis is to determine reasons of the stock market crash in Bangladesh in 2010-11 and roles of the regulators and government since the crash took place.</p> <p>The theoretical background of the study includes brief introduction of Bangladesh stock market with its structure and different regulatory and intermediary organizations. It also describes one international stock market crash and stock market crash of Bangladesh in 1996. For the theoretical part investigation report of Khondkar Ibrahim Khaled is used as the main secondary resource. The report helps to get background of the crash with reasons and role of different regulatory and intermediary organizations.</p> <p>Self-administered questionnaire is used to obtain primary data for the study. The author sent 25 questionnaires to employees of broker houses and general investors but 18 replied. The result of the Self-administered questionnaire helped author to find some other reason behind the stock market crash in addition with reasons provided in the investigation report. Moreover, the result shows developments of market by the regulators and government since the crash.</p> <p>Finally, the author makes recommendation to the regulators, government and investor.</p> | |
| Keywords: | stock market, Bangladesh stock market crash, regulators, DSE, CSE, SEC |
| Number of pages: | 62 |
| Language: | English |
| Date of acceptance: | |

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ABBREVIATIONS

BO = Beneficiary Owners

DSE = Dhaka stock exchange

CSE = Chittagong stock exchange

SEC = Security and exchange commission

CDBL= Central depository Bangladesh limited

BB = Bangladesh Bank

AGM = Annual general meeting

DVP = delivery versus payment

CEO = Chief Executive Officer

IPO = Initial public offerings

DGEN = DSE general index

CASPI = CSE all share price index

CSCX = CSE selective categories index

ICB = Investment Corporation of Bangladesh

NAV = Net asset value

CPD = Centre for Policy Dialogue

SLR = Statutory Liquidity Ratio

CRR = Cash Reserve Ratio

MC = Market Capitalization

EPS = Earnings per share

FDI = Foreign direct investment

ACKNOWLEDGEMENT

I would like to express my gratitude to my supervisor Mr. Andreas Stenius for his continuous effort and guidance throughout last couple of months in my thesis work.

I am grateful to the employees of broker houses who helped me in collecting data and other necessary information for the thesis. I would also like to thank my friends and relatives for their supports.

Finally, my special gratitude to my parents and family members for their encouragements supports and loves during last years in my studies.

Helsinki, 30.05.2012

1. INTRODUCTION

| Country | Ytd % Chg | Country | Ytd % Chg | Country | Ytd % Chg |
|-------------------|--------------|---------------|-----------|----------------|-----------|
| Sri Lanka | 96.01 | Austria | 19.20 | Saudi Arabia | 8.15 |
| Bangladesh | 82.79 | Tunisia | 19.13 | Oman | 6.06 |
| Estonia | 72.62 | Nigeria | 18.93 | Netherlands | 5.74 |
| Ukraine | 70.20 | Finland | 18.68 | Croatia | 5.33 |
| Peru | 64.99 | Venezuela | 18.63 | Hong Kong | 5.32 |
| Lithuania | 56.49 | Mauritius | 18.46 | Belgium | 2.67 |
| Argentina | 51.83 | Norway | 18.00 | New Zealand | 2.44 |
| Indonesia | 46.13 | India | 17.43 | Jamaica | 2.28 |
| Latvia | 41.08 | Ecuador | 16.94 | Brazil | 1.04 |
| Tailand | 40.60 | South Africa | 16.09 | Hungary | 0.47 |
| Philippines | 37.62 | Germany | 16.06 | Kuwait | -0.71 |
| Chile | 37.59 | Egypt | 15.71 | Abu Dhabi(UAE) | -0.87 |
| Kenya | 36.48 | Israel | 14.93 | Switzerland | -1.68 |
| Denmark | 35.91 | Poland | 14.88 | Bahrain | -1.78 |
| Colombia | 33.57 | Iceland | 14.65 | Vietnam | -2.04 |
| Ghana | 32.25 | Canada | 14.45 | Serbia | -2.22 |
| Pakistan | 28.08 | United States | 12.78 | Australia | -2.57 |
| Turkey | 24.95 | Luxembourg | 12.44 | Japan | -3.01 |
| Qatar | 24.75 | Namibia | 12.35 | Ireland | -3.02 |
| Russia | 22.70 | Romania | 12.32 | France | -3.34 |

Figure 1 – 2010 country Stock market performance.

(Source: www.bespokeinvest.com)

1.1 Background

Stock market is one of the most important financial institutions of any economy as well as Bangladesh. It opens door for companies to raise huge amount of capital from a lot of individual investors inside & outside of a country. Hafer and Hein (2007) pointed that growth of new businesses or our economy would not be possible without availability of stocks and development of financial markets.

Here investors participate voluntary to buy ownership of a company in the public market. It is said that stock market is an intermediary institution to adjust a gap between surplus units and deficit units of an economy. In these days for millions of middle class educated people in Bangladesh investing in stocks is more popular than investing in any other investment sectors. For an investor, stocks are more liquid than any other investment sources as it gives ability to sell and buy ownership anytime without any hassle.

Since 2007 share prices of Bangladesh stock market have been increasing steadily over the past four years and it outperformed almost all the world's markets. For instance, it performed as 2nd best (see figure 1) in the world after Srilanka in 2010 gaining nearly 83%. The financial year 2008-09 is known for the global financial and economic crisis. Many developed and developing countries fall into recession. However, it could not affect Bangladesh economy greatly. So, the stock market of the country did not see any significant changes or fall. As CPD (2011) reported, financial year 2008-09 was a volatile year but during this year Bangladesh economy benefited from low prices of importable and was able to avoid negative pressure on its export of goods and services.

The consecutive outstanding performance of Bangladesh stock market in recent years before the crash lured millions of investors to the stock market to invest their little savings. Before the stock market crash the market had become a route of easy money for too many new individual investors. That is why millions of fresh investors invest their small saving in the market during this period. For these fresh investors investing in this market provided a way to avoid working a job. Even some BO account holders worked as intermediaries of friends, relatives to invest their money in the stock market.

Finally, the stock market crashed and taught these investors that investing money in the stock market involves risk too. But the lesson that investors are taught wreaked havoc on the lives of millions of innocent investors. The crash wiped out billions of taka from the market where fresh, illiterate investors were the main victim. It has been more than a year since the crash occurred. But the market is still struggling to regain its loss. Stock market crash of 2010-11 has become a national, political and social issue of the country.

Hossain (2011), the chairman of SEC suggested that “all market participants... and regulatory organizations have to work together more professionally in order to achieve the ultimate goal of the Capital Market”. Investors of this market have to enrich their knowledge and need to be aware about the market, he also added.

1.2 Motivation behind choosing the topic

The author is very keen to keep records of Bangladesh stock market especially Dhaka Stock Exchange because of his personal interest. The author personally experienced the dramatic rise of the market for last couple of years before the crash. Moreover, a lot of investors who lost their savings are author`s friends, relatives and family members too. Another important motive behind choosing the topic is to be familiar with the common reasons of a crash in this market. So that author can be aware of those like other investors before investing in this market. The author wants to enrich his knowledge by studying different books, reports, researches and articles on the topic.

1.3 Thesis aim

The topic is very important to the stakeholders of Bangladesh stock market and emerging stock market as well. However, very little research has been done to provide

knowledge about the crash. So, the study tries to examine the reasons that led to the “Bull Run” for dramatic increase of different instruments in Bangladesh stock market and the fundamental factors of the collapse. It also analyzes the role of DSE, CSE, and SEC as market regulators during the bubble formation and burst. Besides, the study tries to provide knowledge for the stakeholders related to this stock market. So that investors and other stakeholders in Bangladesh stock market and emerging stock markets can be aware of similar kind of collapse.

1.4 Research question

The key questions that would be answered by the study are following:

- What were the main reasons for the stock market crash in Bangladesh in 2010-11?
- What has the government & market regulators done to improve the market condition and prevent this kind of collapse in future?

1.5 Research method and data

A qualitative research approach has been chosen for the study. Data will be gathered from two different sources for this research which are primary and secondary sources.

For the primary data, self-administered questionnaire will be sent to 15 employees of three different brokerage houses and 10 general investors. The questionnaire consists of 3 closed and 7 open questions.

Secondary research will be done by using theories written by scholars, economists and writers. Text books, investigation report, previous researches related to the topic, Journals, newspaper, indices data and electronic sources will be used as the secondary sources.

1.6 Limitations

The author could not approach all stakeholders related to the stock market of Bangladesh to conduct self-administered questionnaire. So, getting different views of different stakeholders was not possible. That's why there might be conflict of interest among the stakeholders.

The study only discusses the role of SEC, DSE, CSE and government. It ignores the role of Bangladesh Bank as the central bank of the country and its monetary policy which affected the market heavily in different time periods.

2. STOCK MARKET AND CRASH

2.1 What is a stock market?

Fellowes (2008, p.29) described that stock market has same features like a normal market with buyers, sellers and agreed price. He also added that there will be a middleman who guides investor to deal offers of buying and selling shares in the stock market.

We usually find stock exchange, regulatory organizations, investors, listed companies with securities, broker houses, merchant banks, and other intermediary organizations in a stock market with co-operation of central bank and government of the country.

2.2 What is a stock market crash?

Amadeo (n.d.) defined stock market crash as more than 10% loss within few days in a stock market. But stock market crash has differentiated from stock market correction where the loss is 10% or less.

“Stock market crash is a sharp and unexpected decline of stock market prices for a very short period of time, usually accompanied with the decline of many other assets’ prices” mentioned by stockmarketcrashes.net. It causes significant capital losses of investors and speculators. The market participants become panicked which leads to more losses.

3. BANGLADESH STOCK MARKET

This part of the study explains history of the Bangladesh stock market with role and functions of Dhaka and Chittagong stock exchanges. It also explains about the capital market structure of the country, Security & exchange commission as the market regulator and CDBL as an important organization of the market.

3.1 History of Bangladesh stock market

The journey of Bangladesh stock market started on April 28, 1954 as East Pakistan Stock Exchange Association Ltd. At that time Bangladesh used to be ruled by Pakistan and the name of the country was East Pakistan.

But trading on this market started in 1956 with a total paid up capital of Taka 4 billion and 196 securities were listed on this market. The exchange was renamed on June 23, 1962 as Dhaka Stock Exchange (DSE) Limited. Trading on Dhaka Stock Exchange was suspended from 1971 to 1976 because of liberation war and its post-independence weak economy. Then the trading was resumed in 1976 with 9 listed securities having a total paid up capital of Taka 137.52 million. (Hassan, Islam & Basher, 2000)

By 1987, the number of listed companies in DSE increased up to 92. But high development of the market is noticeable in the 1990s comparing with any other time since its establishment. (Economy watch, 2010)

3.2 Dhaka Stock Exchange (DSE)

Dhaka Stock Exchange is the first & biggest stock exchange of the country. The operation of Dhaka Stock Exchange started on May 14, 1964 after renaming East Pakistan Stock Exchange Limited.

Dhaka Stock Exchange (DSE) is registered as a Public Limited Company and its activities are regulated by its Articles of Association rules & regulations and bye-laws along with the Securities and Exchange Ordinance - 1969, Companies Act - 1994 & Securities & Exchange Commission Act - 1993.

In the beginning DSE was a physical stock exchange and used to trade in the open outcry system. After that to secure smooth, timeliness & effective operation on the market, DSE uses automated trading system. The system was installed on 10th August, 1998 and was upgraded time to time. The latest upgrading was done on 21st December, 2008.

There are 238 members and total 507 listed securities in Dhaka Stock Exchange. The working days of DSE is 5 days in a week without Saturday, Sunday public holidays & other government holidays. The trading time is from 11:00 am to 15:00 pm (local time). Investment options for an investor in this market are ordinary share, Debenture, Bond & Mutual funds.

As mentioned by Fellowes (2008), “Every stock market has its indices to show movements in the market as a whole”. In the beginning DSE had only one index. However, now there are three different indices which are DSI (All share), DGEN (A, B, G & N) and DSE 20.

(Source: www.dsebd.org)

Functions of DSE

The major functions are:

- Listing of Companies (As per Listing Regulations).
- Providing the screen based automated trading of listed Securities.
- Settlement of trading (As per Settlement of Transaction Regulations).
- Gifting of share / granting approval to the transaction/transfer of share outside the trading system of the exchange (As per Listing Regulations 42).
- Market Administration & Control.
- Market Surveillance.
- Publication of Monthly Review.
- Monitoring the activities of listed companies (As per Listing Regulations).
- Investors grievance Cell (Disposal of complaint by laws 1997).
- Investors Protection Fund (As per investor protection fund Regulations 1999).
- Announcement of Price sensitive or other information about listed companies through online.

(Source: www.dsebd.org)

3.3 Chittagong Stock Exchange (CSE)

Chittagong Stock Exchange is the 2nd stock exchange of Bangladesh. It is said that CSE is the pioneer of the modern capital market of the country as it introduces modern technology & sophisticated logistic support. It was incorporated as a self regulated non-profit organization on 1st April, 1995 and formally opened on November 4, 1995. It started its trading through cry-out system. Then Chittagong Stock Exchange started first automated trading bourse of the country. CSE started its automated trading on 2nd June, 1998 and internet trading service on 30th May, 2004.

The trading time of CSE is between 11:00 am to 15:00 pm. The working days & holidays of CSE are same as like as DSE. CSE consists of 25 members of whom 12 are elected through election of CSE members, 12 members are elected from different major economic & social arena of Bangladesh and CEO is nominated and appointed by its own board but the approval of SEC mandatory.

Now CSE has 147 members and 238 of listed securities. There are four different markets in CSE too which are public, Spot, Block & Odd Lot market. Trading is done through all these four markets. A, B, N, G and Z these are the 5 categories of company listed in CSE and it is mentionable that in G category there is not any company.

Chittagong Stock Exchange has its own indices to calculate movements of its total market value. CSE maintained only one index that was All Share Price Index until 10th October, 1995. Now CSE has 3 indices in the stock exchange. Indices are All Share Price Index (CASPI), CSE Selective Index (CSE30) and CSE Selective Categories' Index (CSCX).

(Source: www.cse.com.bd)

3.4 Structure of Bangladesh Stock Market

3.4.1 Primary Market: Initial Public Offerings (IPOs), new share issuance of a company comes through primary market. Companies can issue new securities after getting permission from the market regulators.

3.4.2 Secondary Market: Secondary market deals with existing securities or previously issued securities. Securities can be sold or bought from this market. In a stock exchange most of the trading figures comes from the secondary market. This market is also divided according to its different trading characteristics.

- I. **Public Market:** Instruments are traded on this market in normal volume which is called lot share.
- II. **Spot Market:** Trading is done in normal volume under corporate actions and must be settled in 24 hours.
- III. **Block Market:** In this market bulk volume of instruments are traded through pick & fill basis.
- IV. **Odd lot Market:** Odd lot refers to a quantity of shares that is less than market lot. Odd lots of all instruments are traded through pick & fills in this market. Basically odd lots generated from bonus and rights issues.

(Ullah, 2011)

3.5 Settlement

- I. **Trade in Public, Block & Odd-lot Market:** Trade in Public, Block & Odd-lot market has two different settlement periods for A, B, G, N & Z categories shares and Settlement is executed through stock exchange clearing house. Here the set-

tlement period is same for A, B, G & N. However, for Z category share settlement period is different.

a. **A, B, G & N Category**: Settlement is done through DSE or CSE clearing house on T+1 (pay in day) and T+3 (pay out day).

b. **Z Category**: Settled on the basis of T+1 (pay in day) and T+9 (pay out day).

II. **Trade in Spot Market (A, B, G, N & Z category)**: Settlement period is same for all category shares traded in this market through clearing house that is T+0 (pay in day), T+1 (pay out day).

III. **Settlement of foreign traders**: Foreign buyers and sellers settle their transaction between themselves involving custodian bank. It is processed within T+5 (pay in day) and T+6 (Pay out day).

(Source: www.dsebd.org)

3.6 Security & Exchange Commissions (SEC)

The aims of forming Security Exchange Commission are to protect investor's interest, improvement of securities markets, appropriate issuance of securities and proper guiding of securities laws. The most important organizations and intermediaries under supervision of SEC are DSE, CSE, CDBL, stock brokers, merchant banks and asset management companies. Khaled (2011)

The Government of Bangladesh founded Security and Exchange Commission (SEC) on 8th June, 1993 under the Securities and Exchange Commission Act, 1993. The commission is consists of a chairman and four members. The Chairman & members of security exchange commission are appointed by the government of Bangladesh. SEC is directly connected with the ministry of Finance and has rights to supervise all of securities laws

& regulations. According to Securities and Exchange Ordinance, 1969 SEC has been empowered to control even self regulatory institutions for instance Stock Exchanges.

The main functions of SEC are following:

- Registering and regulating the business operation of DSE, CSE, stock brokers, merchant banks, underwriters, share transfer agents, portfolio managers and other intermediaries.
- Developing investor`s education, providing training for intermediaries, executing market research and publishing those.
- Controlling every authorized self regulatory organizations too
- Inspecting and controlling fraudulent and unfair trading in security markets
- Auditing and investigating of any intermediaries or stock exchanges
- Collective investment scheme registering & controlling

(Source: www.secbd.org)

3.7 Central Depository Bangladesh Limited (CDBL)

The establishment of CDBL added value to the stock market of Bangladesh and attracted more investors especially foreigners. Before the establishment of CDBL process of transferring and delivering ownership was too lengthy and risky. After implementing automated trading system in DSE & CSE and introducing central depository system, the stock market of Bangladesh became more effective and credible to the investors. (Bepari & Mollik, n.d.)

CDBL was incorporated as a public limited company on 20th August, 2000. The owners of CDBL are DSE, CSE, banks, Investment Corporation of Bangladesh and some other financial institution. The participants of CDBL are called Depository Participant (DP). CDBL charges fees from its participants for different services provided by CDBL.

The functions of CDBL are given below:

- Operate and maintain the Central Depository System (CDS) of Electronic Book
- Recording and maintaining securities accounts and registering transfer of securities
- Changing the ownership without any physical movement or endorsement of certificates
- Supervision of Depository participant activities
- Providing different investor services including providing a platform for the secondary market trading of Treasury Bills and Government Bonds issued by the Bangladesh Bank.

(Source: www.cdobl.com)

4. STOCK MARKET CRASHES

The objective of this section is to provide knowledge to the readers about typical stock market crashes and its causes of 'Bull Run'. In addition factors for crashes and role of different market participants including regulators before, during and after the crashes. Two different crashes will be introduced from international perspective (American) which is stock market crash of 1987 and Bangladesh stock market crash of 1996.

4.1 Stock Market Crash of 1987

In the last century the most significant stock market crashes of the U.S. were crash of 1929 and 1987. This part of the study will briefly explain about the stock market crash of 1987.

4.1.1 Background of the crash

The crash of 1987 is known as “Black Monday” which wiped out over 500 billion of dollars of investors. During the first 6 months of 1987 the value of the U.S. dollar declined comparing to other currencies of the world. As a result, products & services of the U.S. became less expensive to other countries. So, the figure of exports increased and companies experienced more earnings and growth of stock prices in the equity market. Prior to the crash, stock market was posting strong gains almost of 1987. The development of the U.S. market attracted foreign investors and foreign investment doubled between 1986 & 87 which helped to increase the stock prices. (Money-Zine, 2005-2011)

In the period of 1980s inflow of new investors helped to increase market demand and support prices of market instruments. As the development of market infrastructure, Program trading strategies were adopted in the capital market for quick trading. One strategy was “portfolio insurance” which was designed to minimize loss of investors during falling market limiting weight of stocks and increase weight in rising market. Another model was “index arbitrage,” that suggests making profit by buying and selling stocks comparing the value of stocks between in an index and stock- index futures contracts. Then the rule that prohibited short-sales for this kind of trade brought difficulty for arbitrageurs. New York Stock Exchange (NYSE) executed program trading with the support of designated order turnaround (DOT) system. Before the crash the macroeconomic picture experienced increasing interest rate all around the world and inflation. (Carlson, 2006)

The ‘Bull Run’ of forming bubble in the market continued for five years started from 1982. The Dow gained from 776 point in August 1982 to peaked 2722.42 point or about 250 percent in August 1987. It is mentionable that the Dow regained its value that lost in the crash of 1987 within two years by September 1989. (Itskevich, 2002)

From January to August 25th 1987 Dow increased 795 points or 41%, the S&P 500 increased 37% and NASDAQ 29% which was a dramatic growth of the market. (Moser, 2003)

Though volatility of market increased from September, market headed to the real crash from the middle of October.

4.1.2 Timeline of the crash

On 14th October, Wednesday morning two significant news that led losing of share prices and deteriorated market conditions for next couple of days of the week. First one was filing legislation by the Ways and Means Committee of the U.S. House of Representatives to eradicate tax advantages associated with financing mergers. Other news was on trade deficit of August which was remarkably above expectations. Increased interest rate pushed stock prices to decline.

On the next day prices tumbled as previous day which brought panic among individual investors & institutions especially pension funds. Investors started moving investment from stocks to bonds and last half hour of the trading market experienced heavy selling.

On 16th October, Friday prices continued to decline as investors were panicked. Investors started to sell future contracts as a hedge against falling markets. This increased number of sale orders of future contracts produced a price discrepancy and arbitragers took the chance which created downward pressure to the NYSE. At the end of Friday S&P 500 lost over 9 percent for the week which was one of the biggest fall of a week. (Carlson, 2006)

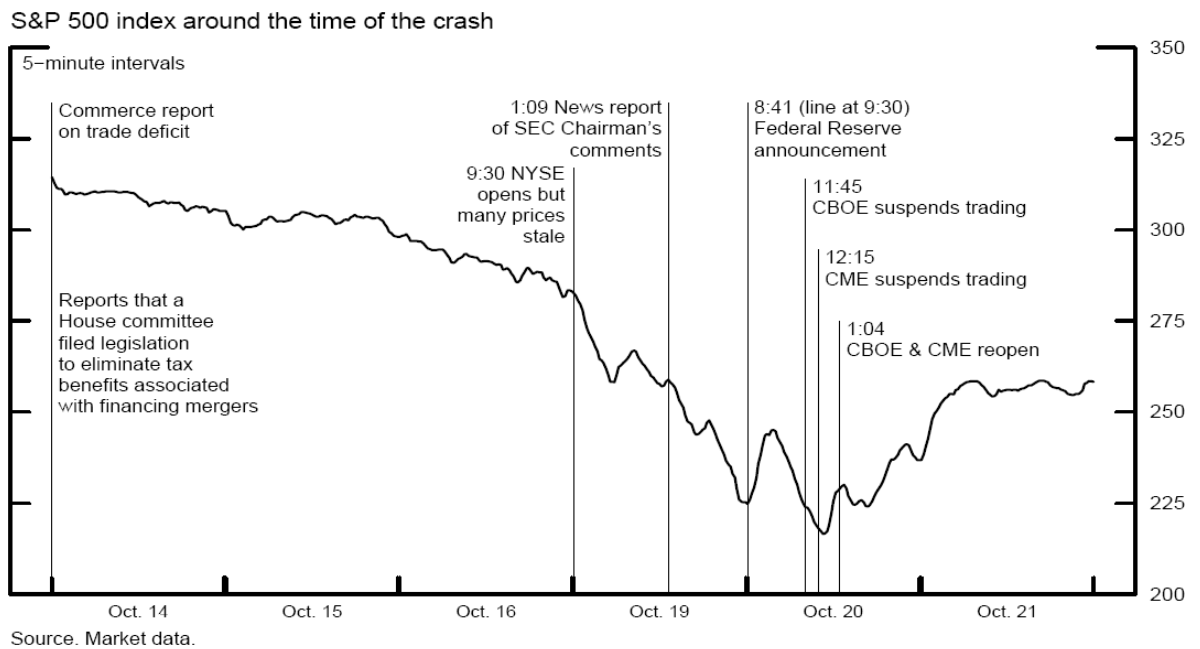


Figure 2: S&P 500 index around the time of crash (Source: Carlson, 2006)

From 14th to 16th October Dow lost over 260 points and S&P 500 lost 10 percent. This dramatic change brought anxiety among the investors over the weekend. Investors were worried that what will be the situation of market on Monday. (Money-Zine, 2005-2011)

On 19th October, Monday there were heavy sale orders on NYSE from the beginning of the trading. It was seen that many specialists opened trading late. 11 out of 30 stocks in Dow Jones Industrial Average and 95 S&P stocks did not open on time. However, future market opened on time with massive selling. Significant selling continued during the whole trading period and prices tumbled which even spread to the future markets. The deteriorating trading conditions created 29 percent decrease of S&P 500 future contracts too. (Carlson, 2006)

The Dow Jones Industrial Average declined 508 points equivalent to 22.6 percent just on Monday which is the worst one-day fall of index in Wall Street history. The S&P 500 lost 20.4 percent and the NASDAQ Composite lost 11.3%. (Itskevich, 2002)

Navellier (2010) mentioned that on 20th October, there was no buying order but was panic selling in the morning session of trade. Then the scenario changed with enough buying orders in mid-morning. Market gained 102 points or around 6 percent on that day. Another significant increase was seen on 21st October by 186.84 points or 10 percent. The day showed as the largest one-day percentage gain since 1933.

4.1.3 Reasons behind the crash

Different analysts found different factors affecting the stock market crash of 1987. Some are found common by analysts and some are not. The considerable reason of the crashes pointed by different market analyst, economists and organizations depicted below:

Margin Calls & Illiquidity: When investors pay a part of future market contracting by cash or selected instruments in an account with a broker which is called Margin. To make sure obligations of investor when contract expired, more Margins is necessary if value of the contract decreases. The process is called Margin call. On “Black Monday”, price movement of future contracts created record amount of Margin calls for firms which were about 10 times the average size. Collected payments are paid to investors whose position had gained. Some investors lost their ability to enter new positions due to Margin calls and some needing to extend credit to make the payment. As investors were unable to pay margins, brokers placed emergency margin calls with exposed options positions which were assumed to be liquidated due to failure of meeting margin calls. It occurred repeatedly which possibly made selling pressure in the market and markets were not able to handle these sell orders. (Carlson, 2006)

Scarcity of information or reliable information: According to Carlson (2006) noted from the survey report of Robert Shiller on market participants of Black Monday, investors were reacting more to the price movements than to any particular news. Some stocks were not traded on time which did not provide correct information about price

quotes and stock indexes. Moreover, quick price movement and rumor about market closing led investors to place sell orders.

Program Trading: Summit Financial Advisors (n.d.) has stated that many analysts accused program trading, especially portfolio insurance as a major reason for the crash. In this trading, computers automatically order large stocks trades when certain market trends prevailed. Analysts blamed that the program trading blindly sold stocks when prices declined on 19th October.

Derivative Securities: Investors not only invested in actual stock market but also in index options and futures markets. Option and future market are called derivatives as the value derives due to change of stock prices. The Brady Commission which was commissioned to examine the reasons of the crash found that the failure of stock markets and derivatives markets to operate in sync was an important factor that contributed to the severity of the crash.

Trade & Budget deficits: The news of huge U.S. trade deficit drove investors into thinking that stock prices of the U.S. will decline discussed by Itskevich (2002). Treasury Secretary James Baker suggested that there is a need for fall in dollar which compelled foreign investors to pull out their dollar- denominated investment.

Steps taken after the crash: Federal Reserve and other market regulators implemented their efforts to improve market conditions and its weak fundamentals. (Federal Reserve immediately took necessary steps to regain market declines and bring confidence among investors. Tuesday morning just after the Black Monday, Federal Reserve announced that it will support market liquidity which brought confidence among investors and significant gain of the market. Federal Reserve worked with banks and securities firms for enough credit to make sure liquidity & funding of brokers and dealers. Officials of the Federal Reserve Bank of New York called to senior management of different New York City banks to continue availability of credit for clearing house members to meet necessary margin payments. (Carlson, 2006)

New computer trading systems were installed in the stock exchanges to develop data management effectiveness, accuracy, efficiency, and productivity. Margin requirements

were changed to decrease volatility for stocks, index futures, and stock options. The Chicago Mercantile Exchange and the New York Stock Exchange adopted a circuit breaker mechanism. The aim of the circuit breaker is; trading would be halted for one hour if Dow falls over 250 points and for two hours if point falls for more than 400 points. (Beginners-stock-investing-guide, 2006-2011)

4.2 Stock market crash of Bangladesh in 1996

4.2.1 Background

The scenario of stock market crash in 1996 and crash in 2010-11 are totally different. The number of BO account holders was only 300,000 and most of them were very new in the market. During the crash of 1996 paper shares used to be sold in front of DSE and it was not easy for investors to identify fake and original shares. The market was enough developed to gain confidence of investors. There was no automated trading system, surveillance was not enough strong and no circuit breakers as well as international protections. (Hossain, 2011)

From 1991 to the end of 1995 DGEN price index gained by 139.3% and reached to 834 point. But in 1996 the market experienced dramatic change and pushed the price index up by 337%. DGEN Index recorded high growth from July and stood at 3648.7 points or by 280.5% on 5th November 1996.

Besides, Chittagong Stock Exchange experienced the same change and grew by 258%. Chittagong stock exchange index increased from 409 to 1157 points in 1996 within one year time. (Bepari & Mollik, n.d.)

During the ‘Bull Run’ period new records were posted almost every day in both bourses for example market capitalization achieved to \$2 billion which is equal to 20% of total GDP. As market became overheated government took step by selling state owned insti-

tutions and Taka 2 billion will be given to ICB for buying shares and support the market. But the steps taken by the government did not work. (Hossain, 2011)

Finally abnormal rise of share prices started to fall and Bangladesh stock market experienced its first crash of the history in 1996. The index lost over 233 points on Nov 6, 1996. After the bubble burst DGEN index dropped to its lowest point and stood at 957 in April 1997. It stood at around the same point where it was 10 months before and DSE General Price index lost almost 70 percent from its highest point of November 1996. Then index continued to decrease for next 7 years until April 2004. During this long time period DGEN Index seldom crossed 1000 point of the index. (Mansur, 2010)

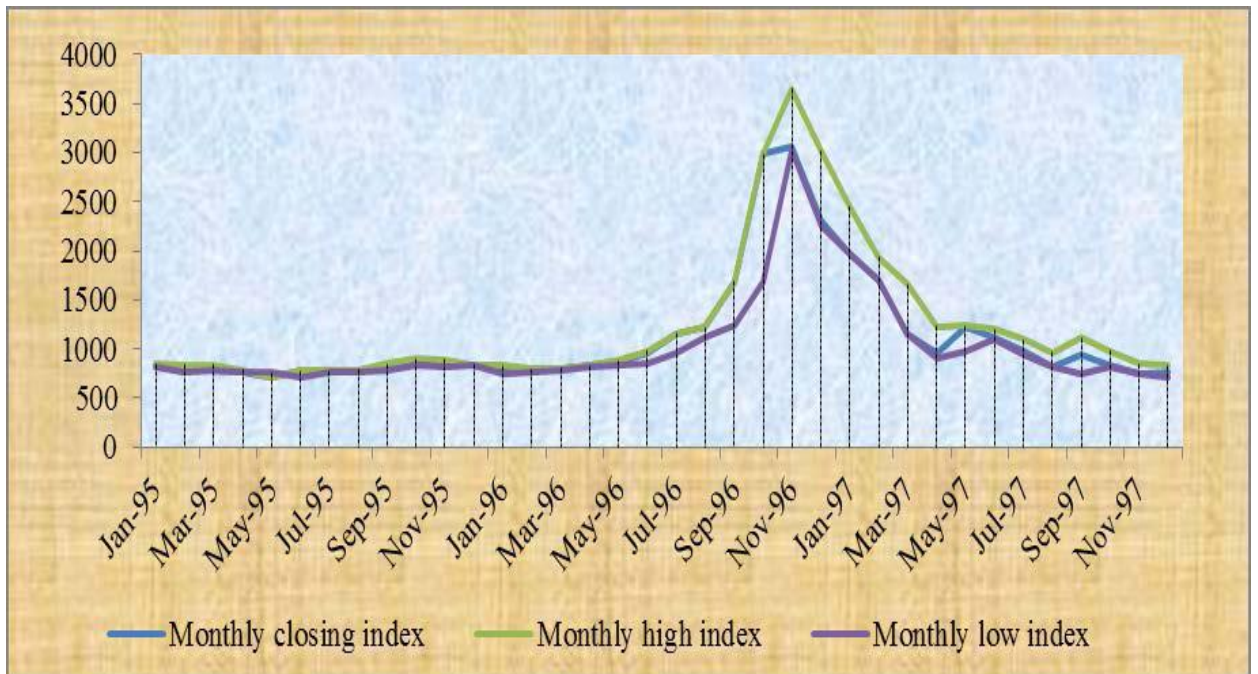


Figure 3: DGEN Graph (Source: Dhaka Stock Exchange)

4.2.2 Reasons

In the research article, Effect of Policy Reforms on Market Efficiency: Evidence from Dhaka Stock Exchange, Alam and others (n.d.) mentioned that some foreign portfolio

managers, few brokers and sponsors of few listed companies were behind the stock price manipulation in October 1996. As a result all share price index of DSE dramatically sky rocketed to 3600 point from 1000 point in six months time. Few foreign & local investors that had inside information made huge profit and a lot of general investors paid heavily.

The cause of stock market crash in 1996 was the failure of market regulators mentioned by Afroz (2006). Stock exchanges did not take any action against the dramatic price increase of listed securities during June to November 1996. Bubble formed due to abnormal demand of securities by new investors where the numbers of listed securities were very few. The reason of huge influx of investors was political stability in the country and bringing confidence in investor`s mind.

The delivery versus payment (DVP) system of trading used to allow buyer-seller to settle their transactions between them without stock exchange participation. Many brokers/dealers used it as a tool to show fake trading to increase demand of share from the general investor`s side. According to Bangladesh Bank analysis that there was an unauthorized korb market consisting of over 25,000 investors outside the stock exchange where securities were traded at a very high price. Moreover, SEC could not handle the crisis for its defective infrastructure. Weak regulations and surveillances could not monitor market manipulators and market intermediaries. Even information inefficiency, artificial financial statements certified by chartered accountants, false information and rumor were other important factors that overheated the market and burst the bubble. (Afroz, 2006)

4.2.3 Steps taken

Finally on 26th December, 1996 SEC formed a probe committee to investigate and find out manipulators behind the stock market debacle. The committee published a report on March 27, 1997 stating a number of companies, investors and brokers who were in the

market manipulation. SEC obtained warrants of arrest against 32 people in 7 brokerage firms, 8 listed companies and filed 15 share-scam cases in the court. (Afroz, 2006)

It took too long for the government and market regulators to restore the market conditions. The stock market crash of 1996 destroyed confidence of investors. As an initiative government of Bangladesh adopted Capital Market Development Program (CMDP) to stabilize the capital market, and attract more local and foreign investors on 20th November, 1997. After that adopting automated trading system and establishment of CDBL increase the credibility of capital market to the investors. (Bepari & Mollik, n.d.)

According to Rashid (2008), the ‘Bull Run’ of 1996 led to some positive reforms for the market. It created stronger surveillance and improved rules relating to public issue, rights issue, acquisition, mergers and surveillance of secondary market became more active than before. The SEC is adopting strict rules and guidelines, trading circuit breakers and international standard surveillance to protect investor rights and ensure fair play.

5. STOCK MARKET CRASH OF BANGLADESH IN 2010-11

History of the stock market crashes show that ‘Bull Run’ before a stock market crash is kind of normal phenomenon. There was no exception for the stock market crash of Bangladesh in 2010-11. Most important factors that guided to the Bull Run are described here.

5.1 Root of bubble

Due to political unrest of Bangladesh state of emergency was declared and military took power of the country in 2007. During military-backed regime investment in real sectors as well as FDI decreased but the inflow of foreign remittance increased. Investors tried

to find alternative investment sector to invest their savings and found stock market as an attractive alternative. (Khaled, 2011)

According to CPD (2011), the total number of BO Account holders on 20th December, 2010 reached to 3.21 million though the number was 1.25 million in December 2009. Most of these new investors don't have enough knowledge about the stock market but invest their most or all savings in the market. 238 brokerage houses opened 590 branches at 32 districts. As CPD (2011) found, internet-based trading operation, opening branches of brokerage houses across the country, easy access to the market information, arranging a countrywide 'share mela (fair)' are the factors for increasing investors. But supplies of new securities through IPOs were not enough to chase huge capital of too many investors in the market.

Banks & other financial institutions of Bangladesh had a lot of excess liquidity due to less business opportunities in the recession period of 2009-10. To minimize the cost of bearing excess liquidity and as a great opportunity, these financial institutions & its officials as well as other people took loan and invest in the share market. This made a huge influx of liquidity in the share market. It was seen that the daily transaction in the share market was on an average from Taka 20,000 to 30,000 million in 2010 and the figure was double comparing to 2009. (Raisa, 2011)

To grow Bangladesh's economy by 7-8% per year Bangladesh Bank adopted accommodative monetary policy during the high inflation periods to support investment. Bangladesh Bank has pegged Taka against dollar to support exports. As Taka has been undervalued it has made excess growth in money supply. Last couple of years broad money made excess liquidity and the main motive behind it was Bangladesh Bank's exchange rate policy. A big portion of this excess liquidity had gone to the stock market but there were very few shares in the market. The policy that was adopted by BB to grow economy by increased exports & investment eventually misguided and ended up blowing the mother of all bubbles. Then government again fuelled the bubble after permitting whitening of black money through tax breaks and schemes. (Rahman, 2011)

Moreover Security & Exchange Commissions was not capable to monitor the market conditions properly. Due to the poor monitoring & market surveillance share prices of Z Category Companies and small companies increased dramatically. Moreover, some ini-

tiatives taken by SEC were not effective and changed directives frequently such as; it changed directives of margin loan ratio 19 times. (Raisa, 2011)

5.2 Time of historical fall

Timeline of historical fall of the crash has been divided into two sections which are December 2010 and January 2011.

5.2.1 December 2010

It has been stated by Bhuiyan (2011) that 5th December, 2010 as the last glorious day of the year for the investors of Bangladesh stock market. On this day DSE General Index (DGEN) gained its all-time highest 8, 918.51 point & broke all old records of DSE turnover by Taka 32.50 billion.

Security & Exchange Commissions and Bangladesh Bank applied a lot of directives to keep the market under control in 2010. But in December both BB & SEC changed many of their previous directives and applied new more. On 6th December, 2010 SEC introduced a directive saying that buy orders will be performed after encashment of Investor's cheque. On the following day another directive called "netting facilities" was applied. This indicates that no investor will be able to purchase securities against the sale proceedings of any other securities during the settlement & clearance period. But both directives of 6th & 7th December were cancelled on 8th December. The reason of cancelling these directives was a significant fall of share prices on 8th December. (Bhuiyan, 2011)

SEC changed directive of margin loan ratio by increasing it from 1:0.5 to 1:1 on 13th December and later it was again hiked to 1:1.5 & 1:2 because of free fall of share prices. (Bhuiyan, (2011)

Bangladesh Bank got a complaint that Banks are investing money in the stock market from their reserve. On the 1st day of December BB sent 50 teams in different banks of Dhaka & Chittagong to investigate and found some banks in such irregularities. (Raisa, 2011)

Raisa (2011) discussed about the most important directives initiated by BB in December 2010 are withdrawal of illegally invested industrial loans, increasing SLR & CRR. On 15th December, BB increased CRR and SLR by 0.5 percent and increased to 19 & 6 percent. Another important directive initiated by BB was withdrawal of illegally invested industrial loans by December 31, 2010. As a lot of the reserved money was invested in capital market, banks started selling shares and withdrawing that money from the market. By the time investors became panicked. To handle the disastrous & assure the panicked investors BB extended its deadline for submitting and adjusting loans. For the merchant banks the deadline was January 15, 2011 and for the commercial bank February 15, 2011.

Institutional investors including financial institutions started selling shares from the beginning of December to show high return on investment at their balance sheet. As the Institutions & banks started selling their shares from the beginning of December the turnover of DSE was the highest ever in its history on 5th December. (Raisa, 2011)

19th December was a historical day of the financial year 2010-11 in Bangladesh stock market. On this day DSE witnessed its biggest one day fall in 55 years history until the date with losing 551.76 points or 6.71 percent. The losing index was even higher than 284.78 points or 3.32 percent of 12th December. Prices started to nosedive in an hour after the trading started and about 200 points were wiped off. In the middle of the session it recovered little bit and ended up the session at 7654 point.

To meet CRR & SLR requirements of BB by the deadline created liquidity crisis in banking sector and call money rate made a new record of 180% by 20th December. Investment Corporation of Bangladesh (ICB), state-owned commercial banks (SCBs), regulators and government brought some kind of stability in the market after the big fall of 19th December & liquidity crisis. As a result, share prices increased from 20th to until 30th December and index stood at 8290 point at the end of the financial year 2010-11.

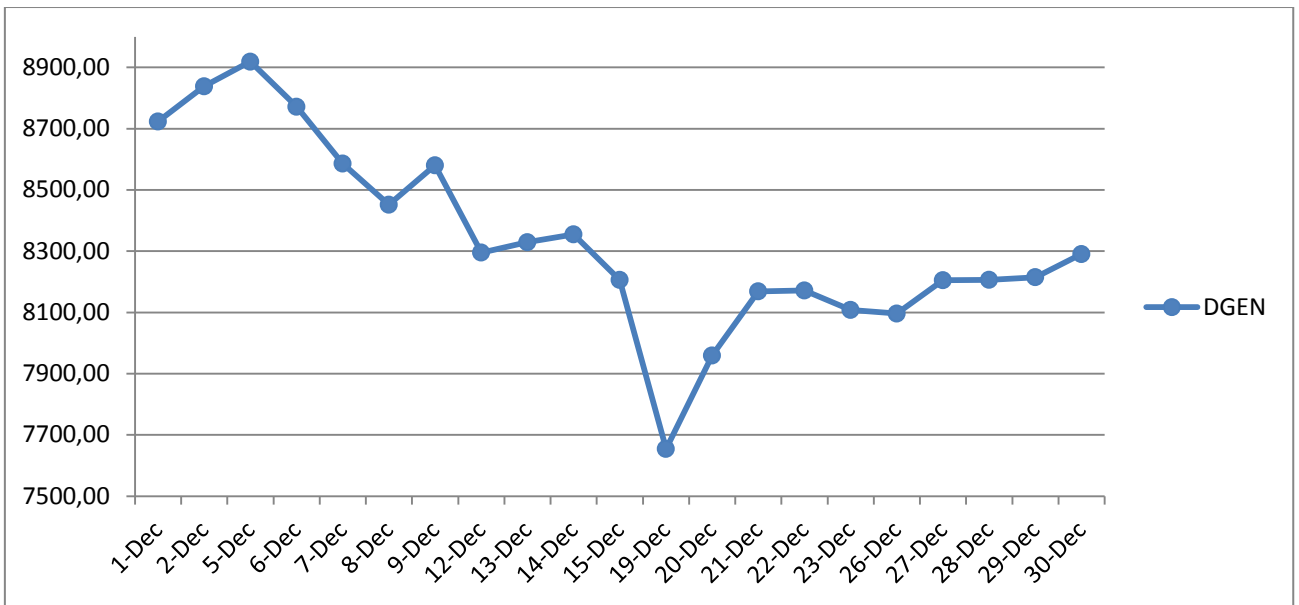


Figure 2: DSE daily DGEN index of December, 2010

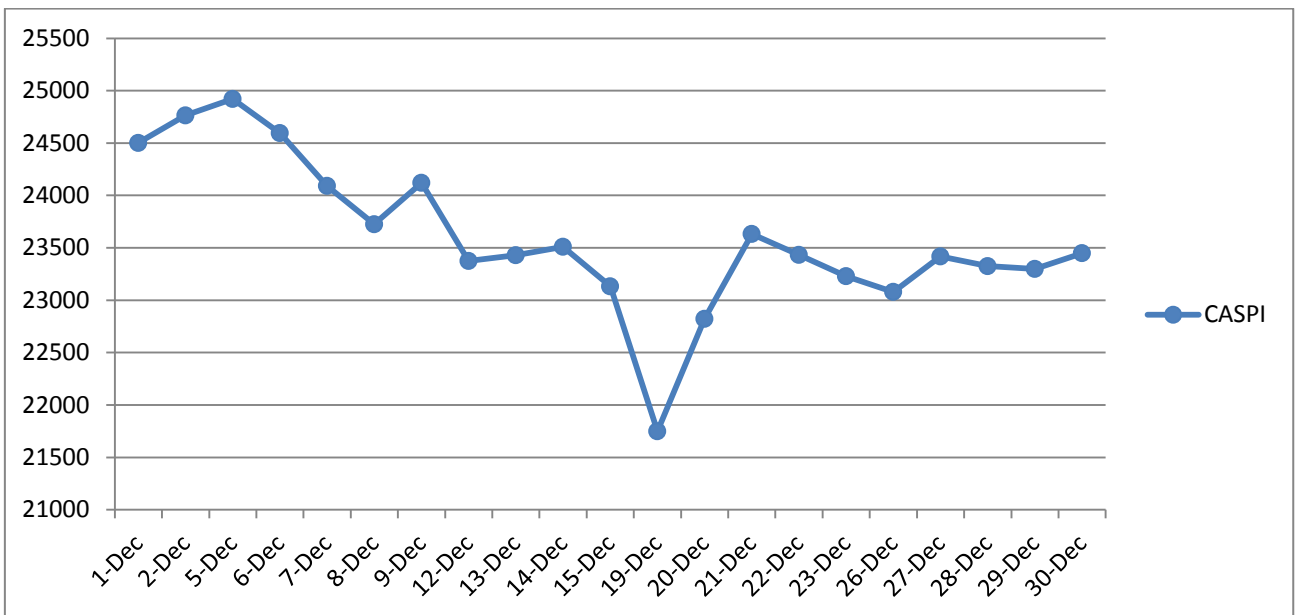


Figure 3: CSE daily CASPI index of December, 2010

5.2.2 January 2011

Share prices started to fall from 3rd January, 2011 as investor had the information of on-going liquidity crisis of financial & non-financial institutions that limiting margin loan. The down slope of index is noticeable from January 2nd to 10th. As Chairman of probe committee Mr. Ibrahim Khaled (2011) mentioned, “Due to trigger sale of shares from 2nd to 5th January, market experienced its biggest decline in share prices and market crash from 6th to 10th January.

On 9th January DSE General (DGEN) Index declined by 600 points and all indices declined nearly 7.75 percent. On 10th January Dhaka Stock Exchange General (DGEN) Index lost by 660 points or 9 percent & Chittagong Stock Exchange Selective (CSE) Index declined by 914 points or 6.8 percent within 50 minutes of trading. CSE All Share Price Index (CASPI) stood at 19212.34 losing by 1,396.21point, which is 6.77 percent. CSE Selective Categories Index (CSCX) lost 914 points or 6.87 percent and CSE -30 Index also lost 1490.83 or 8.28 percent.

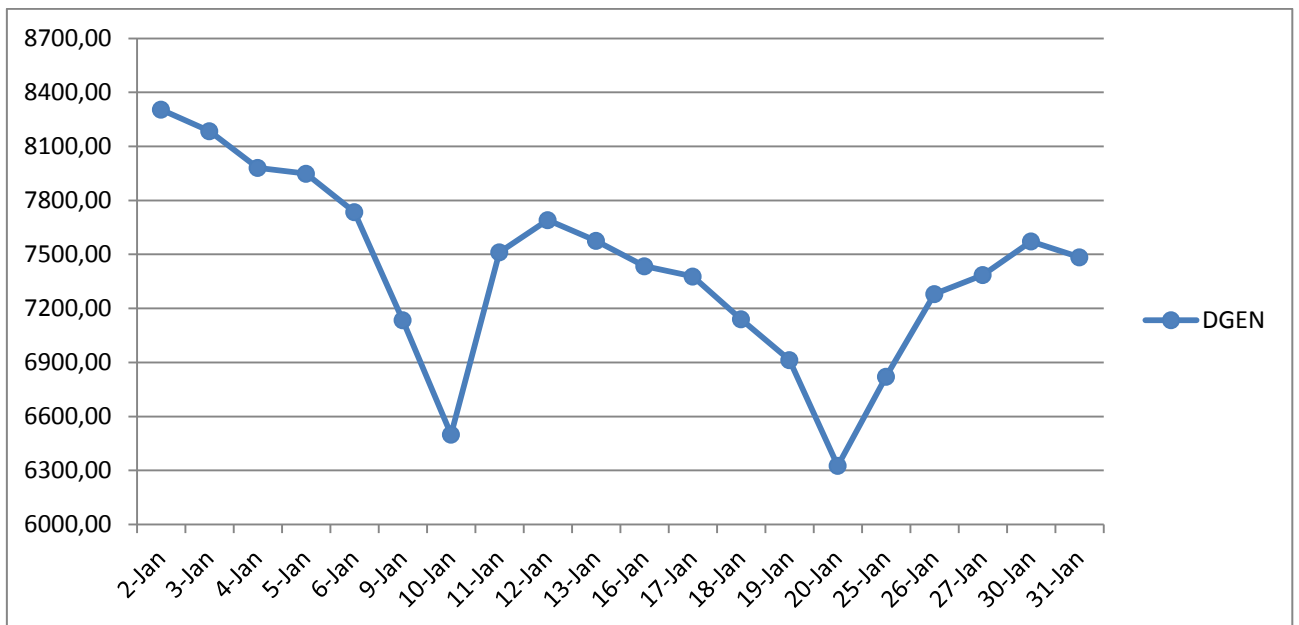


Figure 4: Daily DGEN index of January, 2011

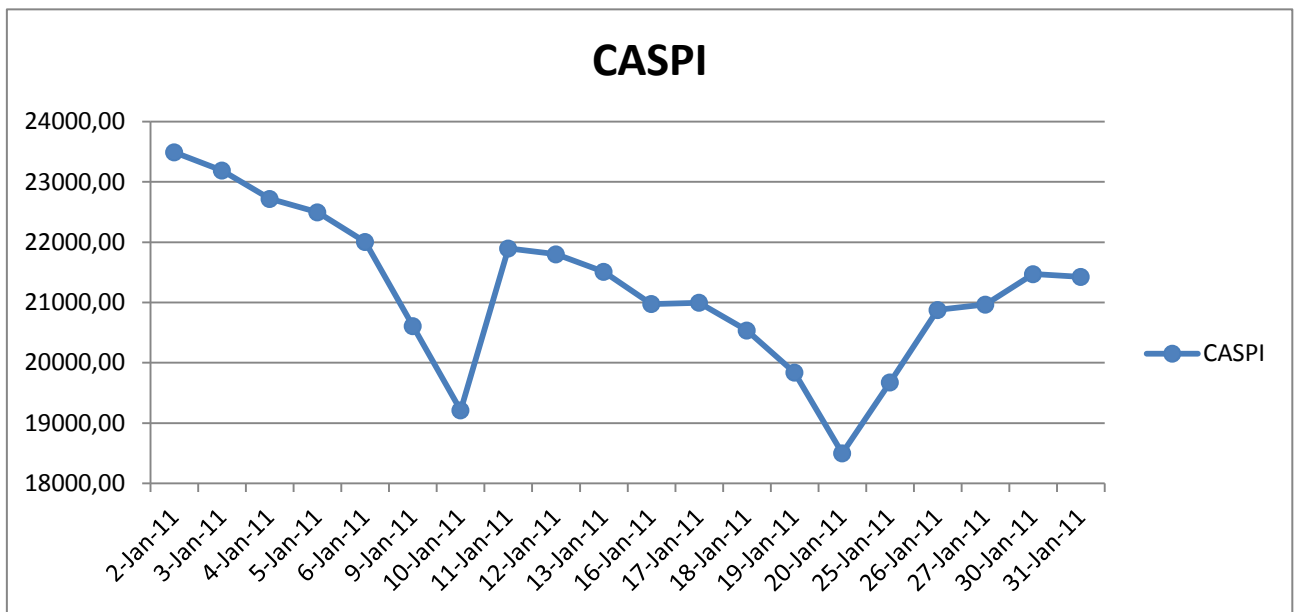


Figure 5: CSE daily CASPI index of January, 2011

It had broken all previous records of decreasing index. After that Security & Exchange Commissions called for an emergency meeting with BB and stop trading at both Dhaka & Chittagong Stock Exchanges. Investors came out in the street with processions and demonstrated against free fall of Share index in both bourses as well as suspension of trading. Investors from different parts of the country such as, Chittagong, Comilla, Narsingdi, Narayanganj and Jessore brought out processions and clashed with law enforces in some places as well.

Following two days consecutive historical fall of share prices the government, Central Bank & SEC took instant actions to stabilize the market and bring the confidence among million of small investors. The government created pressure on Bangladesh Bank & SEC to improve the market condition. As a result, recovery was initiated with Institutional buyer for instance merchant banks, state owned banks & non-financial institutions. On 11th January market recovered 15.6 percent of General index by the end of the session and made a record in Bangladesh stock market history of gain. (Chowdhury, 2011)

Moreover, Ahmed (2011) mentioned that institutional buyers were asked not to sell shares rather to buy. Bangladesh Bank pushed money into the market as liquidity support and repo.

Index started to decline again on 18th January and market hits the lowest turnover in nine months which is taka 8.49 billion. Because of free fall of share prices, Investors came out in the street again and started protesting against free fall of share prices and chanted slogans against market regulators. SEC asked DSE & CSE to halt trading for the 2nd time within 8 days. DSE General Index (DGEN) declined by 243 points or 3.29 percent and CSE Selective Category Index 298 points after a trading of around 2.4 hours.

Though steps were taken and applied by the government, BB and regulators to improve the market conditions and bring the investors' confidence market index declined heavily on 20th January DGEN by slipping 599.77 points or 8.68 percent. From 26th of January there was an increase trend of index. But finally Index stood at the lowest point which is 5579 from 7th to 14th February. (Khalid, 2011)

5.3 Factors contributed to the crash

The factors that contributed to the crash are mostly those commonly blamed by different market analysts, economists and stakeholders.

As Hossain (2011) criticized “this time liable factors are –omnibus account, placement share, book building method, rumors and so on. Misuse of those factors causes the capital market debacle”.

According to M. Shamsul Haque professor of finance and Vice Chancellor, Northern University Bangladesh says “Combination of wrong information to the investors, illegal participation of banks and institutions in the stock markets, weak accounting functions are at the core of the crisis that saw billions of Tk. wiped out”.

Bangladesh government commissioned a committee consisting of four members led by Mr. Khondkar Ibrahim Khaled (chairman) to find out individual or institution involved in the recent share market scam. The committee submitted a report consisting of the reasons for the crash and recommendations with couple of case studies on 7th April, 2011. The report has identified a group of manipulators including key officials, auditors, issuers, issue-managers, brokers, individual investors and some other stakeholders.

According to the Investigation report (2011) of the probe committee, reasons for the stock market crash are following:

- **Role of market regulators and their employees:** The role of SEC to control & monitor capital market, working in favor of manipulators, approving unethical proposal and issuing wrong directives which lead to unexpected market conditions deteriorated the image of SEC. Investigation report mentioned some names of corrupt employees of the market regulators who were directly or indirectly responsible in the market manipulation. There is a job overlapping between SEC and exchanges. Such as, DSE & SEC both organizations have surveillance department for the same job but there is no co-ordination. Listing committee of DSE & CSE examines listing application of company but SEC doesn't do it properly and approve it. Placement of Mutual fund & IPO at a price lower than the market value has become a new method of bribery for powerful employees of regulators. There is another accusation that these senior level employees received placement by using other's name which is very difficult to identify. The report admits that SEC doesn't have enough employees for example; qualified accountant, financial analyst and researcher to control and monitor the market. Rahman & Moazzem (2011) identified in their study that Dhaka stock exchange is becoming more volatile but the regulators are unable to defend it. They also suggested increasing manpower and quality of professionals in SEC.

- **Demutualization of Exchanges:** There are both elected & nominated members in DSE and CSE. Basically, elected members run the administration due to less

interest & relation of nominated members. As a result, the players of the capital market act as controllers. Meanwhile, controllers are inactive during unethical activities due to conflict of interest. In the investigation report it was said that different stake holders of capital market and civil society support & demand for demutualization of exchanges. The meaning of Demutualization is separating controlling functions from controller's functions, empowering controller and taking decisions without being motivated by the market players.

- **Investment of bank in the capital market:** In 2009 & 10 banks and financial institutions invested huge amount of deposit money in the stock market. As a result share prices sky rocketed until December 2010. When Bangladesh Bank restricted more than 10 percent investment of deposited money, increased CRR and SLR ratio, created liquidity crisis and market crashed.

- **Pre-IPO & IPO process:** Investigation committee considered that due to Pre-IPO & IPO manipulation share prices sky rocketed and that is the main reason for the share market crash. Manipulators illegally & unethically created a Kerb market in Pre-IPO stage. Without recommendation by the listing committee application for IPO was accepted. SEC did not examine abnormal asset revaluation and indicative price. As a result in Pre-IPO or IPO stage placement process and placement trade Kerb market overvalued share prices. This eventually generated liquidity crisis in the capital market.

- **Uniform face value of share:** During the meeting between investigation committee and different stake holders of share market, a most important reason for abnormal climbing of index was indicated to *uniform face value of share at Taka 10*. Splitting share does not change revenue or asset of a company and should not affect the share price. But Small investors showed their utmost interest to buy split share with their small investment and consequently pushed the price up. Up to 62 listed companies split their shares in 2009 & 2010. So, it ab-

normally increased liquidity of the market and brought notable change in market capitalization. Investigation report shows that MC increased 655% of companies those adopted share uniform and MC increased only 46% of those that did not adopt. From July 2009 to December 2010 the role of total MC were 81.5% of companies which adopted share uniform and only 18.5% those that did not adopt.

- **Placement trade / Kerb market:** Before issuing IPO, Issue manager or Issuer Company sell shares to their nominated person and that is called Private placement or pre-IPO placement. Private placement is risky because it doesn't have accounting disclosure. In the developed countries there are some fixed rules but in Bangladesh SEC didn't have proper rules for it. As a result some manipulators used it as a tool of price manipulation. Investigation committee found that in most of the cases placement was offered at less than the IPO price. Though aim of public offering is participation of public but placement doesn't make sure it. Eight companies issued convertible preference share in 2009 & 10 in which average 69% went for placement. So, participation of the public was hindered and that created placement trade or Kerb market. Some companies distributed 50-90 percent of their paid up capital in private placement. However, when a company raises too much paid up capital through private placement, the number of free-floating shares decreased. That's why the difference between demand & supply push share prices up. Moreover, non-listed companies created liquidity crisis as huge investment was stuck up with these companies. Placement created new process of trading outside of the share market and that is illegal. By taking chance of placement many small companies raised capital from illiterate and un-informed investors with their artificial financial reports.

- **Omnibus account:** Investigation report found Omnibus accounts of ICB and merchant banks as another major reason behind the stock market debacle. Every branch of merchant bank operates only one omnibus account. There could be 3-10 thousands BO Accounts under the omnibus account which are not under the surveillance of SEC. So, information of individual accounts and its transaction

are kept only with merchant banks. As investigation reports shows that this kind of account made a lot of illegal transactions. It publishes name of 30 big players including ICB for a lot of suspicious transactions and says most manipulators traded from the omnibus accounts. It was also reported at least Taka 2.5 billion has been traded from hidden or omnibus accounts.

- **Asset revaluation & Rumor:** By taking chance of weak asset revaluation method companies have overvalued their asset. In this process dishonest auditors generated artificial audit reports. So, calculating of NAV on overvalued asset indicates wrong signal. Some companies issued Bonus shares against unrealized gain of revalued asset price which is a faulty accounting practice. There is rule to maintain provision against “deferred tax” during asset revaluation to pay tax in future, but companies are not following it. Investigation reports pointed some companies which got NAV more than 100% to 3,472% after asset revaluation.

- **Book building method:** It’s a procedure of determining price of IPO at which it is offered. The fair price is determined by the demand of a security from institutional investors and their **indicative price**. The main aim of introducing this method in Bangladesh stock market was to attract more firms for enlisting in the stock exchanges through fair share pricing. However, it was found as an instrument of manipulating market prices. Investigation report reveals that during the price discovery/bidding stage investors manipulated share prices for placement with too high price. High price was maintained only for the lock-in period and then investors offloaded their shares. As a result they pulled out a lot of profit within a short period and after that the share price did not increase. In this process corrupted Issuer and issue manager manipulated the price.

- **Serial and artificial trading:** Some manipulators created artificial active trading environment among themselves through bulk transaction and increased share

prices. Moreover serial trading and price manipulation by many buy-sell orders through different accounts and broker houses which overheated the market.

- **Issue of Right and preference share:** Right Share is issued at a discount price to existing shareholders. SEC took 4/5 months to take the decision of right issue proposal which is mysterious. Meanwhile companies inform the market about Right issuance and increased the share price. Moreover, issuance of Right share increase number of share which should decrease share price but it did not happen.

Investing in Preference share is safe to get a fixed percentage of profit. To make the share attractive companies keep an opportunity to convert it and in that case it is called Convertible Preference Share. Companies issued preference share for only 2-3 months even for 1 month which is not common in other countries. The faults with convertible preference share were its time period (short), convertible process and private placement. Investigation committee found that SEC did not have proper guidelines for Right and Preference Share issuance.

- **Suspicious transaction of top players:** Investigation report reveals some names of individual and institutional investors as top buyers and sellers during abnormal increase and decrease of index in different time periods. The transactions of these investors were suspicious and affected the market heavily and liable for abnormal rise and fall.

- **Block placement:** There was a lot of suspicious block trading of mutual funds. Some investors got enormous amount of placement time to time.

- **Direct listing:** With the approval of SEC few companies have been directly listed in the stock exchange. These companies come to the market with inflated share prices. Investigation report mentioned that indicative prices of these companies were determined even 58 times more than EPS and 9 times of NAV.

Though share prices of these types of directly listed companies have been artificially determined, but SEC or exchanges did not investigate the reason of abnormal price.

6. METHODOLOGY

The aim of this section is to show how the data was collected, by which method and source and the process of analyzing the data.

6.1 Approach of the study

Because of nature of the research the author used qualitative research method. Finding reasons of the crash and role of the regulators and the government is the aim of the research. The required information itself asks for a qualitative research approach. A qualitative research method quoted by Myers (2009, p.6), “qualitative researchers argue that if you want to understand people’s motivations, their reasons, their actions and the context for their beliefs and actions in an in-depth way, qualitative research is the best”. Ghauri & Gronhaug (2002, p.88) suggested that when the aim of a research is in-depth insight into a phenomenon qualitative methods are most suitable.

6.2 Source of data and method

The data used for this research were obtained and used from both primary and secondary sources. On the other hand, the author used self-administered questionnaire to collect primary data.

6.2.1 Primary source

Walliman (2011, p.92) mentioned that asking questions, conducting interviews, observing without getting involved, immersing oneself in a situation, doing experiments and manipulating models are the basic methods for obtaining primary data. Primary data for this study is obtained through self-administered questionnaire.

6.2.1.1 Self-administered questionnaire

The author conducted self-administered questionnaire with 15 employees of three broker houses and 10 general investors. The reasons behind choosing self-administered questionnaire are distance and time constraints. Moreover, e-mail (internet) was found as an inexpensive communication channel for the distance. Besides, it allows respondents to provide accurate and clear answer for the questions according to their thinking and feelings. Saunders, Lewis & Thornhill (2009, p.362-63) pointed that “Self-administered questionnaires are usually completed by the respondents”. To execute the process questionnaires are sent to the respondents through internet or intranet, by post or by hand and collected later, they added.

Robson (2002, cited in Saunders, Lewis & Thornhill, 2009, p.362) mentioned that questionnaires works best with standardized questions that one can be confident that it will be interpreted in the same way by all respondents.

Reasons behind the crash have been provided by the Investigation report of Ibrahim Khaled (2011). But the self-administered questionnaire will help to find out other causes, if there is any that did not appear in the investigation report. It asks about the role of regulators and government that has played to improve market conditions since the crash. Besides, the self-administered questionnaire finds to recommend some steps that regulators and government can adopt to protect investors or this kind of collapse in future. The self-administered questionnaire enables the writer to gather information to solve the research questions and make recommendations. Expected result would carry:

- new ideas includes causes of the stock market crash that were not in the investigation report
- development of the market by the regulators and government after the crash
- recommendations for the regulators and government to prevent this kind of crash
- answers in details and according to respondents' feelings

6.2.1.2 Questionnaire

The questions for the questionnaire were selected logically to match the expected result. There were 10 questions in the questionnaire which were in English version. The questionnaire consists of 3 closed questions and 7 open questions. The questionnaire is attached in the appendices of the thesis.

6.2.1.3 How respondents were selected

For this research selecting respondent is a very hard job as it involves conflict of interest of opinions among the stakeholders. Respondents were chosen on the author's judgment. Different market analysts and economist pointed that there are so many investors in this stock market who don't have enough knowledge about investment in the capital market. The aim of the writer is to ignore this sample of investors too. To select the respondent author used following criteria:

- Does the respondent have the corrected as well as accurate information about the crash?
- Is the respondent adequately experienced and educated about the subject to opine?
- Does the respondent have information about market conditions even after the crash?

Keeping all these questions in mind, the author selected two different sample groups of respondents which are employees of broker houses and general investors. The employ-

ees of the broker houses have daily updates information about the market and regular relationship with different stake holders of the market and good educational background that help them to obtain a job in broker house. The respondents of three broke houses were from different departments including research and sales. Moreover, the author personally knows that most of the employees of broker houses invest in the stock market. So, many of these respondents have experience of investing in the market with working experience. So, it would be possible to obtain information from employee and investor point of view. Though there are so many broker houses in Bangladesh, the author selected three broker houses as it was easy for the author to get information from these houses.

To select investors for the self administered the author took suggestion from the employees of broker houses. Investors were selected on the basis of their educational background, knowledge about the market and investment in it, regular updated information of the market and experience of the stock market crash of 2010-11.

6.2.2 Secondary Source

The used secondary sources for the study are Books, investigation report, past researches, newspaper, journal, electronic publications and indices data of DSE and CSE.

6.2.2.1 Books

Although books were not the major secondary source for the study, the author used some books too. To be familiar with the subject the writer studied some books related to stock market. Moreover, to execute methodology part of the study the author went through few books written on different methodologies in business studies and qualitative research approaches.

6.2.2.2 Investigation report

For this research investigation report of Khondkar Ibrahim Khaled (2011) is used as the main resource for theoretical part. The report was collected from bdnews24.com. The full report consists of 300 pages. The report is very useful for the research as it gives complete idea about the context of the problem with case studies and serves to solve the research questions. It also helps to estimate the role of regulators and government in the capital market of Bangladesh during and before the crash.

6.2.2.3 Data of indices

Indices data of DSE was collected from broker house and indices data of CSE from Chittagong stock Exchange website. These data was used to examine significant fall and rise of share prices in both exchanges and to draw graphs of indices for different time periods.

6.2.2.4 Past researches

Finding past researches for stock market crash of Bangladesh in 2010-11 was very difficult for the author. But the author found some articles on the crash and researches on other crashes done by different scholars.

6.2.2.5 Newspaper, Journal and other sources

Newspaper, Journal and other electronic sources are the most important and more used sources than other sources used for the study. Important daily news and other information were collected from the newspaper which is crucial for this kind of research.

The used journals for the study were both recent and archives. Different articles were collected from these sources. The resources of these sources are downloaded via internet.

6.3 Reliability and Validity

All the questions self-administered questionnaire were made as simple as possible to avoid unnecessary deceptiveness. It helps respondents to provide accurate and credible answers. Also the indices data collected from both stock exchanges are highly reliable. Therefore, the study claims to have reliability.

The sample of respondents and the questions fit with the findings of the study which is valid to the research.

6.4 How the research was conducted

First, the author familiarizes himself with the topic by studying newspapers, investigation report, articles and information from friends, relative and different TV channels. As the author used to keep records of Bangladesh stock market for the personal interest helped to get more information about the crises. Then published investigation report described full scenario of the problem.

Secondly, a proposal of the research was submitted to the supervisor. The proposal was approved and the author started writing theoretical part explaining the stock market of Bangladesh, stock market crash of 1987 and previous stock market crash of Bangladesh.

Thirdly, the writer constructed a questionnaire related to the research questions. Some questions were deleted and some new were added after a discussion with the supervisor.

The new questionnaire was constructed with the questions which able to generate relevant new ideas for the study.

Fourthly, the respondents who were sent self-administered questionnaire were approached in the first week of January 2012 when the author visited home country (Bangladesh). Three friends and relatives who were working in three different broker houses promised to help the author in collecting self-administered questionnaire of their colleagues and investors of the market. The author was also introduced with most of the respondents and kept continuous communication with the respondents before sending the questionnaires.

Fifthly, the author received written answers of self-administered questionnaire by 20th May. To analyze the answers author divided and discussed the results in there major parts which are the reasons of the crash, the role of regulators and government after the crash and how should prevent this kind of crash in future.

7. EMPIRICAL RESEARCH

This section of the study presents results of the self-administered questionnaires carried out by the author. Out of 15 employees 12 and out of 10 investors 6 returned the questionnaires. The author finds it as a merit to present the result of every question separately. The result is analyzed and summarized according to the objectives of the study. Here, the author represents reasons of the stock market crash, the role of regulators and government.

7.1 Result and discussion

7.1.1 Relation of respondents with Bangladesh stock market

This question (7.1.1) was asked respondents to get idea about the relationship of individual respondent with Bangladesh stock market. It was a closed question with 3 different possible answers which are **Employee**, **Investor** and **Both**. In the first group of sample, out 12 employees of broker houses 5 were found as **Employee** and 7 were **Both** (employee and investor). On the other hand, in the second group of sample all 6 respondents were general **Investor** who invest in the market. So, the result of the question number 1 fits with the expected sample of the author for the Self-administered questionnaire.

7.1.2 Agreeing with major causes of Investigation report of Khondkar Ibrahim Khaled (2011)

There was not a single respondent from both employee and investor group who agreed with all the causes given in the questionnaire. Every respondent selected few causes as major reasons behind the crash. The following table provides information about number of respondents agreed with different causes:

| Reasons | No. of respondents |
|--|---------------------------|
| Book Building method | 6 |
| Direct listing | 8 |
| Placement share | 2 |
| Audit report | 3 |
| Corrupted employees of regulators | 11 |
| Split Share | 1 |
| Serial trading | 2 |

| | |
|--|-----------|
| Block trading | 0 |
| Insider trading | 8 |
| Over exposure of banks & financial institutions | 15 |
| Omnibus account | 7 |
| Poor monitoring or regulators | 12 |
| Margin loan | 11 |
| Kerb market | 2 |
| Issue of Right & preferences shares | 2 |

As the result shows, **over exposure of banks & financial institutions** is the most important reason behind the crash where 15 respondents selected the cause. Then **poor monitoring of regulators** was found 2nd important reason for the crash chosen by 12 respondents. **Corrupted employees of regulators, Margin loan** were chosen by 11 respondents and **direct listing & insider trading** was selected by 8 respondents. Other causes were selected by different number of respondents. Though anyone did not chose **Block trading** as a reason for the crash but it was mentioned by the respondents in other questions.

7.1.3 Any other reasons that were liable for the stock market crash

The aim of asking this question was to find out if there is any other reason that caused the stock market crash but did not appear in the investigation report of Ibrahim khaled. Therefore, the answer of the question serves to generate new ideas about major stock market causes and it was successful to do so. Most of the respondents answer the question with following causes:

- Imbalance of demand and supply of shares in DSE & CSE

- Investors didn't have idea about financial report of listed securities / unfair audit report
- Buying shares based on rumor & without study
- Majority of general investors don't have knowledge about capital market
- Intervention of Bangladesh Bank (central bank)
- Over expectation of general investor
- Liquidity crisis

The question number 2 and 3 was structured to find result of “research question one”. Poor knowledge of general investor about the stock market was the most common reason mentioned by the respondents of broker houses which was not in the investigation report. They mentioned that many of general investors don't have enough knowledge about the stock market. They buy shares without studying companies, on rumors and they have over expectations. However, most of the general investors did not mention it. Intervention of Bangladesh Bank, imbalance of demand & supply of shares and liquidity crisis were other reasons mentioned by the respondents of both groups.

7.1.4 Do the investigation report leads to any market improvements

The question was another closed question with “Yes” and “No” two different possible answers where 9 respondents answered “Yes” and 9 answered “No”. Publishing investigation report was a decision of high court. So, the regulators and government will work according to the report and its recommendations were a great expectation of all stakeholders of the market. There was another investigation report in stock market crash of Bangladesh in 1996. But it was blamed that steps were not taken according to the report. So, the answer of this question reveals usefulness of the report and effectiveness of it by the regulators and government. Most of the general investors believe that investigation report didn't lead to any market improvements. However, most of the employees of broker houses agreed that it leads to market improvements and some mentioned it as slowly effective.

7.1.5 Development of rules & regulations by regulators that were blamed for the crash

Respondents answered the question providing brief idea about the improvement of rules and regulations since the crash. 12 respondents of employee of broker houses & general investor agreed that regulators developed their many rules and regulations which were blamed as the causes of the crash. According to the respondents developed rules and regulations are following:

- Margin loan decision would be taken by broker houses and merchant banks not SEC
- Sponsor director mandatory holds individually 2% and all together 30% shares
- Book building method in IPO has been developed
- Bangladesh Bank imposed limitations on Bank & financial institutions about their exposure in the market

7.1.6 Should there be more development of market regulations, directives or surveillance by the regulators

Respondents mentioned that there should be more development of rules and regulations in following ways:

- Adoption of Software (surveillance) and surveillance team to monitor overall trading activities
- Trustworthy IPO approval process
- Actual book building process should be introduced
- Offloading government shares
- Margin loan decision should be taken by broker houses and merchant banks not SEC
- Insider trading would be strictly prohibited

7.1.7 Suggesting tools that should regulators adopt to prevent this kind of crash in future

Every respondent makes recommendation how regulators can protect this kind of crash in future by answering the question. The expected answer for the question will contain different tools that can or should adopt by the regulators. Most of the respondents of both sample groups provided accurate and clear answer for the question. They made following recommendations for SEC and stock exchanges. Provided recommendations are:

- Regulators should perform their job honestly and sincerely
- SEC needs honest officials
- Insider trading should be prohibited
- Omnibus should be converted to BO account

7.1.8 Effective steps that government took to improve the market condition after the crash

Respondents answered that the government of Bangladesh took initiatives to improve the stock market situation mentioning different strategies, tools, policies and rules-regulations taken by Bangladesh government. The effective steps taken by the government to improve the market condition are following:

- Opportunity to whiten the black money by investing in stock market
- Appointing new chairman and members in SEC
- Establishment of law division

7.1.9 Actions taken by the government sufficient to handle the situation or not with suggestion

16 respondents of the general investor and employee group agreed that actions taken by Bangladesh government are sufficient to tackle the condition of the stock market after the crash. In addition, some respondents also suggest implementing the actions taken by the government. Only two respondents did not agree with them and recommended following actions that should the government take to handle the situation:

- Government should announces incentives through SEC to attract companies to the capital market
- Government should take long term actions for the market

7.1.10 Role of government to prevent this kind of crash in future

The answer of the question contains recommendations of steps or actions for government that should adapt to prevent or avoid and tackle same kind of crashes in future. Recommendations are given following:

- Actions should be taken against those who were involved in this recent stock market crash
- Improving security laws and penalty for breaking those
- Balancing of demand and supply of shares
- Follow-up the market and protect against any kind of manipulation

The question number 5, 6, 7, 8, 9 & 10 were designed to serve the “research question two”. The result of these questions describe that the regulators and the government of Bangladesh has contributed in the development of stock market after the crash. However, more developments are necessary.

Following recommendations are made after collecting primary data through self-administered questionnaire, used investigation report and other secondary materials for the study.

7.2 To the regulators

To save general investors DSE, CSE, and SEC should provide courses and training programmes to enrich their knowledge about the stock market. 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.

It was found that manipulation started in IPO or Pre-IPO process through book building, private placement and kerb market. Due to manipulation in primary market shares were traded in the secondary market with high price. In the secondary market serial trading, insider trading also increased the price again. SEC should develop rules and monitor primary and secondary market.

There was allegation that there is no co-ordination of work with SEC and exchanges. Exchanges and SEC should co-ordination their jobs to improve market surveillance. Changing directive frequently by SEC has a bad effect in the market. So, SEC should not do it. Even Bangladesh Bank should not change their monetary policy in a short notice.

7.3 To the government

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 in 1996. The government should take action against these manipulators and punish them. According to different market analysts manipulators of 1996 stock market were not punished which motivated them to manipulate the market again. In addition, the government can keep important role in increasing security laws.

As the respondents of self administered questionnaire suggested that the government should follow-up the market on a regular basis and protects any kind of misconduct in the market. To keep a balance between demand and supply of shares in the market the government can offload shares of government organizations. Respondents recommended taking long term actions by the government to prevent this kind of collapse. The government can work together with Bangladesh Bank to monitor investment limit of bank and financial institutions in the capital market too.

Respondent pointed that when government or ministers make comments on any issue of the stock market; it influences the market and affects share prices. So, they need to be careful when they make any comment about stock market.

7.4 To the investor

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 accounts.

These investors should enrich their knowledge about the market and the company where they invest. They should not rely on rumor and need to study financial reports of companies before making their investment decision. They need to know that in investment there is risk too. So, they should take their investment decision carefully. Educated investors can take better investment decision and can be aware of manipulation. For the investor this is the best way to save investment and prevent this kind of crash in future. Moreover, investor should not rely on margin loan too.

8. CONCLUSION

The study has attempted to find out the major reasons for the recent stock market crash of Bangladesh in 2010-11 and role of different regulatory organizations including DSE, CSE, SEC and the government of the country. The author conducted the study to provide knowledge to different stake holders of the market especially general investors to be aware of factors that might lead future stock market crash. It also tries to suggest regulatory organizations to follow the recommendation made by respondents of self-administered questionnaire, investigation report of Khondkar Ibrahim Khaled and different market analysts as well.

A number of reasons for the stock market crash have been identified in addition of investigation report. Though many causes were identified, few factors emerged stronger in the recent stock market crash as those are pointed by majority of respondents. The causes includes over exposure of banks and financial institutions, poor monitoring of regulators, corrupted employees of regulatory organizations, margin loan, direct listing, insider trading, book building, lack of general investor's knowledge, imbalance of share and intervention of Bangladesh Bank. Other reasons, mentioned in discussion section were also liable for the crash.

The regulators and government have developed role and functions since the crash. But they need to develop more and introduce new tools, strategies, directives, rules and regulations for market development and to prevent this kind of stock market crash in fu-

ture. Developing faulty accounting practices and methods, recruiting honest officials, providing education on the stock market to the general investors and taking strict actions against manipulators can improve the situation and prevent this kind of crash.

The result of self-administered questionnaire cannot be considered as absolute because of such a small sample. So, the results have limited value. However, the results contain idea, recommendation, and feelings from both employee and investor point of view.

The author would like to take the opportunity to opine that objectives of this thesis have been obtained. Hopefully, the thesis will help to develop knowledge of all the stakeholders related to Bangladesh stock market about the recent stock market crash in 2010-11.

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APPENDIX

This is Sangit Saha, studying B.B.A. in International Business at Arcada University of Applied Sciences, Helsinki, Finland. This is a survey to study the reasons of the stock market crash of Bangladesh in 2010-11 and role of regulators. I would be very grateful if you kindly answer the questionnaire and return it to me. **N.B.** Respondent can even answer the questionnaire anonymously.

1. How are you related with the Bangladesh stock market?

Employee Investor Both

2. According to the Investigation report of Khondkar Ibrahim Khaled (2011), major reasons of the crash are following elements. (please tick the boxes, if you agree with the elements)

| | | | | | |
|-----------------------------------|--------------------------|---|--------------------------|-------------------------------------|--------------------------|
| Book Building method | <input type="checkbox"/> | Split Share | <input type="checkbox"/> | Omnibus account | <input type="checkbox"/> |
| Direct listing | <input type="checkbox"/> | Serial trading | <input type="checkbox"/> | Poor monitoring or regulators | <input type="checkbox"/> |
| Placement share | <input type="checkbox"/> | Block trading | <input type="checkbox"/> | Margin loan | <input type="checkbox"/> |
| Audit report | <input type="checkbox"/> | Insider trading | <input type="checkbox"/> | Kerb market | <input type="checkbox"/> |
| Corrupted employees of regulators | <input type="checkbox"/> | over exposure of banks & financial institutions | <input type="checkbox"/> | Issue of Right & preferences shares | <input type="checkbox"/> |

3. Did you find any other reasons that were liable for the stock market crash? If yes, please mention.

4. Do you think the investigation report of Ibrahim Khaled leads to any market improvements since the crash?

Yes No

5. Have the regulators developed their rules & regulations that were blamed for the crash? If yes, please mention those & how.

6. Should there be more development of market regulations, directives or surveillance by the regulators that haven't been taken yet? If yes, please mention those.

7. Could you please suggest some tools that should regulators adopt to prevent this kind of crash in future?

8. Have you find any effective steps that government took to improve the market condition after the crash?

9. Are the actions taken by the government is sufficient to handle the situation? (If Not, please suggest some actions that should government take)

10. What kind of role can government play to prevent this kind of crash in future?