2.1 Introduction

The Indian stock market had been attracting considerable attention in recent years, especially after the liberalization of the economy. Since India started its economic reform in early 1990s, it had ensured its current position as one of the largest developing countries in the world. Meanwhile, its emerging stock market had experienced tremendous growth. It is widely seen that India’s stock market at the world level had evoked widespread academic and business interest. The financial sector in India had developed quite significantly in both size and sophistication. A major fillip to strengthen the financial system was given by the rapid expansion of the stock market, especially in the later part of the 1980s and subsequently by initiating financial sector reforms on the recommendations of the high powered Narasimham Committee in 1992-1993. Wide ranging financial reform measures were implemented since then to make the financial system more market oriented, thereby aiming at increasing its efficiency.

In the capital market, some reforms were taken up. They were viz., repealing the Capital Issues (Control) Act of 1947, setting up the Securities Exchange Board of India (SEBI) to protect investors and to enhance to approach capital market after clearance by SEBI; allowing the foreign institutional investors (FIIs) an access to the domestic capital market on registration with SEBI, commencing the operation of Over the Counter Exchange of India (OTECI) and National Stock Exchange (NSE) of India with nationwide stock trading and electronic display, clearing and settlement facilities, permitting Indian companies an access to international capital markets through Euro equity issues and liberalization of the investment norms for NRIs so that NRIs and overseas
corporate bodies can buy shares and debentures without prior permission of RBI.\textsuperscript{1} Economic growth in a modern economy depends on an efficient financial sector that pools domestic savings, mobilize foreign capital for productive investments. Today, stock market is a very significant component of the financial sector of any economy. Hence it has been one of the prime sources for mobilising household savings into upcoming productivity ventures and lends a helping hand in the country’s development. Stock market is a dependent financial organisation comprising of many investors seeking to obtain the best return at low level risk. Moreover, it acts as a means of raising capital for companies which is meant to assist primary market function and it is accompanied either in the initial stage or by an existing company issuing new shares. An efficient and liquid secondary market is vital to encourage the primary market’s role. In this chapter, the history, growth and development of stock market in India, stock market investment theories and stock trading methods and procedures are discussed.

2.2 History of Stock Exchange

The origin of the stock market in India goes back to the end of the eighteenth century when long-term negotiable securities were first issued. However, for all practical purposes, the real beginning occurred in the middle of the nineteenth century after the enactment of the Companies Act in 1850, which introduced the feature of limited liability and generated investor interest in corporate securities. An important early event in the development of the stock market in India was the formation of the Native Share and Stock Brokers’

Association at Bombay in 1875, the precursor of the present day Bombay Stock Exchange. This was followed by the formation of association/exchanges in Ahmadabad (1894), Calcutta (1908) and Madras (1937). In addition, a large number of ephemeral exchanges emerged mainly in buoyant periods and to recede into oblivion during depressing times subsequently.

In order to check such aberration and promote a more orderly development of the stock market, the Central Government introduced a legislation viz., the Securities Contracts (Regulation) Act, 1956. Under this legislation, it was mandatory on the part of a stock exchange to seek governmental recognition. Even though the history of Indian stock market dates back to 1875 it had changed radically in terms of quality and efficiency in the last two decades, while markets even in the developed countries took several decades to improve. Prior to the economic reforms, Indian stock markets remained highly controlled and insulated from the developments in the global markets.\textsuperscript{2} As of January 2005, there were 23 stock exchanges recognised by the Central Government.

The most important development in the Indian stock market was the establishment of the National Stock Exchange (NSE) in 1994. Within a short period, it had emerged as the largest stock exchange in the country surging ahead of the Bombay Stock Exchange (BSE) which was historically the dominant stock exchange in India. The NSE had cast its shadow over most of the regional stock exchanges and had set up subsidiaries which in turn had become institutional

members of NSE as well as BSE. Since, then the NSE and the BSE loomed large over the Indian stock market\(^3\).

### 2.2.1 Nature and Functions of Stock Exchanges

The stock exchanges in India have an important role to play in the building of a real shareholders’ democracy. The aim of the stock exchange authorities is to make it as nearly perfect in the social and ethical sense as it is in the economic purview. To protect the interests of the investing public, the authorities of the stock exchanges had been increasingly subjecting not only its members to a high degree of discipline, but also those who use its facilities in joint stock companies and other bodies in whose stocks and shares it deals. There are stringent regulations to ensure that directors of joint stock companies keep their shareholders fully informed of the affairs of the company. In fact, some of the conditions that the stock exchange imposes upon companies before their shares listed are more rigorous and wholesome than the statutory provisions such as those contained in the Companies Act.

Apart from providing a market that mobilises and distributes the nation’s savings, the stock exchange ensures the flow of savings utilised for the best purpose from the community’s point of view. These markets are not simply a place for many buyers and sellers to make their transactions. It is a wholesome vast company of investors, competing with one another as buyers and sellers that decide what would be the level of security prices. In this situation the public is prone to

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sudden swings of hope and fear. If left entirely to itself, the market would produce needlessly violent situations and often cause quite irrational fluctuations.

2.3 Stock Markets and the Economic Development

Stock markets play a key role in allocating capital to the corporate sector, which will have a real effect on the economy on aggregates. Debt finance is likely to be unavailable in many countries, particularly in developing countries, where bank loans may be limited to a selected group of companies and individual investors. From a monetary growth prospective a well-developed stock market provides a means for the exercise of monetary policy through the issue and repurchase of government securities in a liquid market. This is an important step in financial liberalisation.

In addition, well-developed and active stock markets alter the pattern of demand for money. Booming stock markets create liquidity and become an engine of economic growth. The development of stock markets is necessary to achieve full efficiency of capital allocation if the government is to liberalise the financial system. The primary benefit of a stock market is that it constitutes a liquid trading and price determining mechanism for a diverse range of financial instruments. This allows risk spreading by capital raisers and investors and matching of the maturity preferences of capital raisers (generally long-term) and investors (short-term). This in turn stimulates investment and lowers the cost of capital, contributing in the long term to economic growth.  

The role of stock markets as a source of economic growth has been widely debated. It is well recognised that stock markets influence economic activity through the creation of liquidity. Liquid financial market was an important enabling factor behind most of the early innovations that characterised the pioneering phases of the Industrial Revolution. Recent advances in this area reveal that stock market remains an important conduit for enhancing development. Many profitable investments necessitate a long term commitment of capital, but might be reluctant to relinquish control of their savings for long periods. Liquid equity markets make investments less risky and more attractive. At the same time, companies enjoy permanent access to capital raised through equity issues. By facilitating longer-term and more profitable investments, liquid markets improve the allocation of capital and enhance the prospects for long term economic growth. Furthermore, by making investments relatively less risky, stock market liquidity can also lead to more savings and investments.

2.4 Investment in Shares

A share is a unit measure of a share holder’s interest in the capital of the company. Share capital of a company is divided into a large number of equal parts and each part is known as a share. According to Companies Act, a company can issue two types of shares such as equity and preference. Shares are marketable instruments issued by the companies in order to raise the required capital. Shares are issued by every company, which goes public. These are very popular investments, which are traded every day in the stock market and the value of the share at the end of the day decides the market value of a firm.
2.4.1 Equity Investment

Equities are a type of securities that assure the ownership in a company. Equities are traded in the stock market. They can be purchased through stock exchanges or initial public offering. Investing in equities is a good long-term investment option as the return on equities over a long time horizon are generally higher than most of the other investment options. Their investment value and average market price tend to increase irregularly but persistently over the decades as their net worth builds up through the investment of undistributed earnings. However, along with the possibility of greater returns come greater risks. The investor needs to know the different types of equity shares available in the market for investment and particularly should understand about the background and performance of the company in which they would like to purchase the shares. Experts suggest that any individual investors who would like to invest in equity share for the first time have to purchase in companies, which are monitored closely by the regulatory authorities.

2.4.2 Types of Equity Shares

The following are the various types of equity shares

A. Blue chip Shares

These are the shares of the companies, which have been doing extremely well during the past few years. These are usually shares of well-established companies. The blue chips companies are part of Sensex and Nifty. The companies, which come under this division, are market leaders and have the potential to dictate terms and direct share price movement in the country.
Companies like Reliance, SBI, ICICI, HDFC, ONGC, NTPC, Infosys, TCS, Wipro, HLL, ITC, Tata Steel, DLF and the like are some of the blue chip companies. The above stated companies’ market capitals are more and these scrips have an impact in line with Sensex and Nifty movement.

**B. Income Shares**

These are the shares of the companies, which have stable operations. The companies have a high dividend payout ratio. When the dividends paid are high, it implies that the profits saved for the company is less and hence it has fewer opportunities for growth in value, which may not result in higher capital appreciation.

**C. Growth Share**

These are the shares of companies, which have secured their position in a particular industry. These shares have less dividend payout ratio as the profits of these companies are invested in further development of the company, which results in high potential for growth. Such shares grow in value and promise high capital appreciation in terms of market value.

**D. Cyclical Shares**

In every economy, there is a definite business cycle that keeps on operating and the performance of the companies varies with the stages of the business cycle. The prices of the shares of these companies are affected by the variations in the economy. For example sugar and fertilizer sectors move seasonally. So the investors who like to enjoy the benefit through cyclical movement are required to invest and reap the benefits during the season. However, this required expert knowledge and careful tracking.
E. Defensive Shares

These are the shares of the company whose performance does not change with the changes in the economy. The price movement of these types of shares will have a steady but slow growth. Even Investors who are cautious would like to invest in equity shares of these companies.

F. Speculative Shares

These type of shares traded in the stock markets have lot of speculative movements. They are of high risk in nature but give very good return in the short term. However, the value of the scrip tends to fall sharply. It is probably suited for intraday trading. Investors are required to watch the trends of these shares carefully. However, these types of shares are not suitable for normal investors to trade.

G. Rajiv Gandhi Equity Savings Scheme

The Government is striving very hard to bring reforms to make the economy grow in a sustainable manner. The 2011-12 budget had initiative through reforms taken by the government may result in encouraging the retail investors to go for this option of making even the ordinary investors to invest in equity investment, which was not previously preferred to by them. Rajiv Gandhi Equity Savings Scheme was introduced in the budget 2012-13 by the Government. This was the first of its kind scheme in India which allowed the retail investor to invest up to Rs 50, 000 directly into equity shares and avail tax benefits at 50 per cent of investment\(^5\). Rajiv Gandhi Equity Savings Scheme was not just a tax saving scheme. It offers an opportunity to retail investors to be part of the equity culture.

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The main focus of the Government in initiating this scheme was that the investors need to invest on their own. Retail investors could take this opportunity to rise to the occasion and enhance their knowledge of equity products and reap benefits from the long term investments in equity with tax benefits. By offering this scheme, the Government aimed at channelizing household savings into stock markets. To make the scheme more attractive for retail investors, the Finance Ministry is also considering at the time of taxation, reduction in the lock-in period under the scheme to one year from the proposed three years.\(^6\)

### 2.4.3 Derivatives Market

Derivatives are financial instruments that are mainly used to protect against or to manage risks and them very often also serve arbitrage or investment purposes, providing various advantages compared to securities. Derivatives come in many varieties and can be differentiated by how they are traded, the underlying point they refer to, and the product type. A derivative instrument broadly is a financial contract whose payoff structure is determined by the value of an underlying commodity variable viz., security, interest rate, share price index, exchange rate, and oil prices alike. Thus, a derivative instrument derives its value from some underlying variable. A derivative instrument by itself does not constitute ownership. It is, instead, a promise to convey ownership. All derivatives are based on some “cash” products. The underlying basis of a derivative instrument may be any product including

\(^6\) Available at http://mutualfund.birlasunlife.com/Pages/Individual/Tools-Knowledge/About-RGESS.aspx
Commodities like grain, coffee beans, orange juice and the like

Precious metals like gold and silver

Foreign exchange rate

Bonds of different types, including medium and long-term negotiable debt securities issued by the Governments, companies and the like and

Short-term debt securities such as T-bills

Derivatives are specialized contracts which are employed for a variety of purposes including reduction of funding costs by borrowers, enhancing the yield on assets, modifying the payment structure of assets to correspond to the investors’ market view. In the organized derivatives market where derivative products are traded, future market plays a defining role. Future contracts are traded on exchanges and they are standardized according to the rules and regulations of the exchange.

The exchange determines the exact quality and quantity of the goods to be delivered per contract, as to when the contract terminates and the location of the delivery. This standardization facilitates secondary market trading and enhances the liquidity of the market. The parties involved need not concern themselves with the creditworthiness of other players because the exchange itself guarantees the performance of all parties. The seller of a futures contract is said to be in the ‘short’ position (the sale of a borrowed security with the expectation that the asset will fall in value) and the buyer is said to be in the ‘long’ position (the buying of security with the expectation that the assets will rise in value). The date at which
the parties must complete the transaction is the settlement or delivery date. The price agreed to by two parties is known as the futures price.\textsuperscript{7}

\subsection{2.4.3.1 Types of Derivative Instruments}

Derivative contracts are of several types. The most common types are forwards, futures, options and swap.

\textbf{A. Forward Contracts}

A forward contract is an agreement between two parties, a buyer and a seller to purchase or sell something at a later date at a price agreed upon today. Forward contracts, sometimes are called forward commitments. They are very common in everyone’s life. Any type of contractual agreement that calls for the future purchase of a good or service at a price agreed upon today and without the right of cancellation is a forward contract.

\textbf{B. Future Contracts}

A future contract is an agreement between two parties – a buyer and a seller – to buy or sell something at a future date. The contract trades on a futures exchange and is subject to a daily settlement procedure. Future contracts are evolved out of forward contracts and possess almost similar characteristics. Unlike forward contracts, future contract trade on organized exchanges, called future markets. Future contact also differs from forward contact in that they are subject to a daily settlement procedure. In the daily settlement, investors who incur losses pay them every day to investors who make profits.

\begin{flushright}
\end{flushright}
C. Options Contracts

Options are of two types’ viz., calls and puts. Calls give the buyer the right but not the obligation to buy a given quantity of the underlying asset at a given price on or before a given future date. Puts give the buyer the right, but not the obligation to sell a given quantity of the underlying asset at a given price on or before a given date.

D. Swaps

Swaps are private agreements between two parties to exchange cash flows in the future according to a prearranged formula. They can be regarded as portfolios of forward contracts. The two commonly used swaps are interest rate swaps and currency swaps.

i. Interest Rate Swaps

These involve in swapping only are interested in the interest related cash flows alone between the parties in the same currency.

ii. Currency Swaps

These entail swapping of both principal and interest between the parties, with the cash flows in one direction being in a different currency than those in the opposite direction.⁸

2.5 Investors Awareness and Education

Investors’ awareness programme and education had been provided by SEBI as following forms:

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⁸ Available at http://blog.ipleaders.in/types-of-derivatives-and-derivative-market/
2.5.1 Investors’ Assistance and Education

To facilitate replies to various queries by the general public on matters relating to securities market, SEBI had undertaken a new initiative and launched toll free helpline service on December 30, 2011. The toll free helpline service is available to investors from all over India and is in 14 languages viz. English, Hindi, Marathi, Gujarati, Tamil, Bengali, Malayalam, Telugu, Urdu, Oriya, Punjabi, Kannada, Assamese and Kashmiri. The toll free helpline service is available on all working days during Monday to Friday from 9:30 a.m to 5:30 p.m (excluding declared holidays).

2.5.2 Investors’ Protection

It was established in 1988 as a non-statutory body to deal with all matters relating to the development and regulation of the securities market and protecting the interests of investors. Subsequently, it was armed with statutory powers through the promulgation of SEBI Act, 1992. It was also vested with the power of a civil court and can summon all categories of market intermediaries to investigate on their working, to impose penalty and to initiate prosecution against them. For the effective functioning of the capital market, it has issued several guidelines important among them was on disclosure and investor protection.

It contained a substantial body of requirements for the issuers and intermediaries to ensure higher standards of integrity and fair dealing. In order to ensure that no malpractice had taken place, a representative of SEBI supervises the allotment process, SEBI had also issued an advertisement code for the issuers to
ensure that the advertisement remained fair and does not contain statements that
mislead the investor or vitiate their informed judgment. Its regulatory policies and
actions were found to have a great bearing on the efficiency of the capital market
and through it on the efficiency of the whole economy. Investors can approach
SEBI by filing their complaints against companies and brokers. It had set up
certain procedures like the categorization of complaints and their regular follow-up
with defaulting companies, registrars and merchant bankers.

With a view to handle a large volume of complaints, the grievances redress
cell had been computerized. A number of investor complaints were received by
SEBI. The rate of redress of such complaints to be solved by SEBI\(^9\) points out that
the investor should be protected not only against the frauds and cheating but also
against the losses arising out of unfair practices. Such practices may include
deliberate mis-statement in the offer documents provided to the investors for
making rational decisions or deliberate mis-statement of purchase or sale price by a
broker; practices of manipulations of prices by market rigging, kerb deals, insider
trading and the like. The idea of investors’ protection requires that the stock market
is properly regulated and supervised to ensure a fair play by the operating agencies.
It also includes the continuous provisions of adequate, accurate and relevant
information to enable the investors to make prudent investment decisions.

2.5.3 Investors’ Grievances

Investors are the most valuable assets of the stock exchange. They are one
of the crucial factors for business success in today’s fast changing world.

\(^9\) SEBI Report 2009-10, p.59
Protecting and safeguarding the investors’ interest and confidence is essential for any stock exchange. The NSE had established investors’ grievance cell to handle the matters/issues related to/against trading members/companies and it is manned by a team of professionals possessing relevant experience in the areas of securities, markets, company and legal affairs. The team is specifically trained to identify the problem faced by the investors and to find and affect solutions quickly. It takes up complaints in respect of trades executed on the NSE through its National Exchange for Automated Trading (NEAT) terminal and routed through to NSE trading member or SEBI registered sub-broker of NSE trading member and trades pertaining to companies traded on NSE.

2.6 Stock Trading Procedure and Methods

The trading system for securities at all the stock exchanges is a completely on-line screen-based trading system accessible to all its trading members on equal time basis. The telecommunications link, connecting the trading workstation on trading-member premises to the mainframe computer is of crucial importance for the exchange to provide on-line responses within a few seconds. The permission to the applicants selected as trading members to trade on the exchange is accorded in groups as telecom network expands progressively to cover all eligible trading members. The vast telecommunication network works as a closed user group and is available only to its members. The members of the exchange alone are entitled to the trading privileges. Investors interested in buying or selling securities should place their orders with the members or otherwise called brokers of the exchange.
The activity involved their open outcry system and the screen based system of securities trading.

2.6.1 Open Outcry System

Traders shout and resort to signals on the trading floor of the exchange which consists of several ‘notional’ posts for different securities. A member wishing to buy or sell a certain security reaches the trading post where the security lies. Buyers interested in transacting in that security make their bids and sellers make their offers and bargains are closed at mutually agreed upon prices. In stocks where jobbing is done, the jobber plays an important role. The investor stands ready to buy or sell on his account. He quotes his buying and selling prices.

2.6.2 Screen based System

Till 1994, trading on the stock market in India was based on the open outcry system. With the establishment of the National Stock Exchange in 1994, India entered the era of the screen based trading. The trading ring was replaced by the computer screen and even distant participants can trade with each other through the computer network. Within a short span of time, screen based trading had supplanted the open outcry system on all the stock exchanges in the country. A large number of participants, geographically separated, traded simultaneously at high speeds. The screen-based trading system provided and enhanced the informational efficiency of the market participants trading at a faster speed. It permitted the market participants to get a full view of the market, which increased their confidence in the market and established transparent audit trails. While computerised trading was more efficient, it decidedly lacked the vibrancy and
vitality of the traditional floor trading. For trading on the system, the trading member will also be required to install a workstation which he is expected to purchase along with requisite software. This trading system provided enormous flexibility to trading members.

A. Share Traded and Delivered in BSE and NSE

The total amount of shares traded and delivered in BSE and NSE during the study period are shown vide Table 2.1

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantity of Shares Traded (Rs in Lakhs)</th>
<th>Quantity of Shares Delivered (Rs in Lakhs)</th>
<th>Percentage of Shares Delivered on Shares Traded</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BSE (Rs)</td>
<td>NSE (Rs)</td>
<td>Total (Rs)</td>
</tr>
<tr>
<td>2001-02</td>
<td>182196</td>
<td>278409</td>
<td>460605</td>
</tr>
<tr>
<td>2002-03</td>
<td>221403</td>
<td>364066</td>
<td>585469</td>
</tr>
<tr>
<td>2003-04</td>
<td>388748</td>
<td>713301</td>
<td>1102049</td>
</tr>
<tr>
<td>2004-05</td>
<td>477174</td>
<td>787996</td>
<td>1265170</td>
</tr>
<tr>
<td>2005-06</td>
<td>664467</td>
<td>818438</td>
<td>1482905</td>
</tr>
<tr>
<td>2006-07</td>
<td>560780</td>
<td>850515</td>
<td>1411295</td>
</tr>
<tr>
<td>2007-08</td>
<td>986005</td>
<td>1481229</td>
<td>2467234</td>
</tr>
<tr>
<td>2008-09</td>
<td>739600</td>
<td>1418928</td>
<td>2158528</td>
</tr>
<tr>
<td>2009-10</td>
<td>1136513</td>
<td>2205878</td>
<td>3342391</td>
</tr>
<tr>
<td>2010-11</td>
<td>990776</td>
<td>1810910</td>
<td>2801686</td>
</tr>
<tr>
<td>2011-12</td>
<td>654137</td>
<td>1605205</td>
<td>2259342</td>
</tr>
</tbody>
</table>

Source: SEBI Annual Report
It could be observed from the Table 2.1 that more amount of shares were traded in the BSE in the year 2009-10, when compared to last ten years and in the NSE also, large amount of shares were traded in the same year. It was due to investors getting confidence in the stock market movement and the shares yielding good returns. Investors had traded in day trading and got their fair returns. This satisfactory situation led them to take their shares delivered on the stock exchange. During the study period, the year 2010-11 had the highest share delivered in both BSE and NSE. It indicated that, there was no good return and hence the investors delivered their shares. The percentage of shares delivered on shares traded ranged between 26.55 and 45.25 per cent in BSE and 23.15 and 35.54 per cent in NSE during the period under study.

2.6.3 Steps in Stock Trading

Normally, the following steps are involved in trading on the stock exchange

A. Client Registration

The buyer approaches the broker and executes a client registration form wherein all the details about the buyer are furnished. This form is the basis for trading in the exchange through the broker.

B. Agreement

An agreement between the buyer and the broker as specified by the stock exchange concerned is entered into stock market. This agreement is called the client member agreement.
C. Order Confirmation

After collecting the order form from the client, the broker places the order in his computer system, which is in turn transmitted to the computer system of the NSE at Mumbai. The order confirmation slip is obtained by the broker from the exchange.

D. Trade Conformation

A trade confirmation slip is generated as soon as the order is matched by the computer against the price generated by the matching algorithm (price-time priority). The trade conformation slip gives the full details of the trade executed. The buyer makes payment of necessary margin money to the broker.

E. Contract Note

After getting the trade confirmation, broker issues a contract note to the buyer in respect of all the orders that are executed during the day. Such a note spells out the obligations of the parties concerned, for the buyer to make payment and the broker to make delivery scrips. Accordingly, the payment is made and the scrips are taken delivery by the buyer, which thus concludes the contract.

2.6.4 Rolling Settlement

Rolling settlement is the trading system of securities, in which the transaction (buying or selling of securities) can be squared up by a counter-transaction on the same day only. If the transaction is not squared up on the same day, then delivery will take place as per the prevailing rules. It was introduced in India on 10\textsuperscript{th} January, 2000 when 10 scrips were put on the compulsory rolling settlement. Initially, the settlement period was T+5 but it has been gradually
reduced to T+2 with effect from 1st April 2003. A rolling settlement is one in which trades outstanding at the end of the day have to be settled at the end of T + X time frame work. T is the trade date and X is the days as specified by the SEBI\(^{10}\). For arriving at the settlement day all intervening holidays, which include bank holidays, NSE holidays, Saturdays and Sundays are excluded. A tabular representation of the settlement cycle for rolling settlement is given below

<table>
<thead>
<tr>
<th>Event</th>
<th>Activity</th>
<th>Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trading</td>
<td>Rolling Settlement Trading</td>
<td>T</td>
</tr>
<tr>
<td></td>
<td>Custodial Confirmation</td>
<td>T+1 Working days</td>
</tr>
<tr>
<td>Clearing</td>
<td>Delivery Generation</td>
<td>T+1 Working days</td>
</tr>
<tr>
<td></td>
<td>Securities and Funds pay in</td>
<td>T+2 Working days</td>
</tr>
<tr>
<td>Settlement</td>
<td>Securities and Funds pay out</td>
<td>T+2 Working days</td>
</tr>
<tr>
<td></td>
<td>Valuation Debit</td>
<td>T+2 Working days</td>
</tr>
<tr>
<td></td>
<td>Auction</td>
<td>T+2 Working days</td>
</tr>
<tr>
<td></td>
<td>Auction Settlement</td>
<td>T+3 Working days</td>
</tr>
<tr>
<td></td>
<td>Bad Delivery Reporting</td>
<td>T+4 Working days</td>
</tr>
<tr>
<td>Post Settlement</td>
<td>Rectified bad delivery pay-in and pay-out</td>
<td>T+6 Working days</td>
</tr>
<tr>
<td></td>
<td>Re-bad delivery reporting and pickup</td>
<td>T+8 Working days</td>
</tr>
<tr>
<td></td>
<td>Close out of re-bad delivery and funds pay- in &amp; pay-out</td>
<td>T+9 working days</td>
</tr>
</tbody>
</table>

In this settlement, payments are made quicker than in the weekly settlements. Thus, investors benefit from the increased liquidity. The stocks were selected on the basis of five parameters viz., trading volume, institutional holding, and extent of dematerialisation, incidence of bad delivery problems and the

\(^{10}\) Ibid., p.15
distribution of registrar. Since 2000, all other shares had been brought gradually in the compulsory rolling settlement system. Under this system, some shares were put in the T-category. The transactions could not be squared up even on the same day in these shares. These were known as “Trade to Trade Shares” and the transaction must end with a delivery and payment.

2.6.5 Dematerialisation

Prior to trading in dematerialised environment, settlement of trades required moving the securities physically from the seller to the ultimate buyer through the seller’s broker and buyer’s broker. This involved a lot of time and the risk of delay somewhere along the chain. Further, the system of transfer of ownership was grossly inefficient as every transfer involved physical movement of paper to the issuer for registration, with the change of ownership being evidenced by an endorsement on the security certificate. In many cases, the process of transfer took much longer time than the time stipulated in the regulations. Theft, forgery, mutilation of certificates and other irregularities were rampant. All these added to the costs and delays in settlement and restricted liquidity. The enactment of Depository Act in August 1996 ushered in the wave of dematerialisation by the establishment of depositories. Dematerialisation had been the bedrock of capital market reforms since then, as it paved the way for successive technological achievements and simplified the trading, settlement and record preservation. There are two depositories in India viz., National Securities Depository Ltd (NSDL) and

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11 NSDL Annual Report, 1997-98, p.22
Central Depository Services Ltd (CDSL). The depositories have set up nation-wide network with proper or settled in dematerialised mode in the Indian stock markets.

The position of Demat in quantity of shares held by the investors was classified into depository wise and is shown in the Table 2.2

**Table 2.2**

Dematerialisation Status

<table>
<thead>
<tr>
<th>Year</th>
<th>NSDL</th>
<th>CDSL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Demat Quantity (Millions of Shares)</td>
<td>Demat Quantity (Millions of Shares)</td>
</tr>
<tr>
<td>2003-04</td>
<td>83693</td>
<td>14010</td>
</tr>
<tr>
<td>2004-05</td>
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<td>19080</td>
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<tr>
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<tr>
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<td>202701</td>
<td>31250</td>
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<tr>
<td>2007-08</td>
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<td>49820</td>
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<tr>
<td>2008-09</td>
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<tr>
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<td>77950</td>
</tr>
<tr>
<td>2010-11</td>
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</tr>
<tr>
<td>2011-12</td>
<td>579801</td>
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</tr>
<tr>
<td>2012-13</td>
<td>686476</td>
<td>151793</td>
</tr>
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</table>

**Source:** NSDL and CDSL

It could be observed from the above Table that the quantity of shares in dematerialisation in NSDL was raised to 53 per cent in the year 2004-05 which was the highest percentage. The CDSL had a highest percentage during 2007-08 viz., 59.42 per cent only. The year 2012-13 reported that the number of dematerialised shares had decreased as compared to the previous year for both NSDL and CDSL. It was concluded that shares traded in stock market and the
number of investors who had opened the Demat accounts had increased in a
decade.

2.7 Securities Analysis in Stock Market

Securities analysis are classified into two categories as follows

2.7.1 Fundamental Security Analysis

This type of analysis helps to appraise the ‘intrinsic value’ of a security. The
intrinsic value is the true economic worth of a financial asset. The fundamentalists
maintained that at any point of time every share had an intrinsic value which
should in principle be equal to the present value of the future stream of income
from that share discounted at an appropriate risk related rate of interest. The actual
price of the security, therefore, is considered to be a function of set of anticipated
capitalisation rate. Price changes as anticipatory changes which in turn change as a
result of new information. The fundamentalist then argues that in case there is
something less than complete information, the actual price of the stock is generally
away from its intrinsic value. All firms work within the economic environment and
their survival will depend on how the economy as a whole is faring. During periods
of economic prosperity the demand for goods and services of the firm is likely to
result in increased sales and higher profits.

A. Industry Analysis

The industries contribute to the output of the major segments of the
economy. They vary in their growth rate and in their overall contribution to
economic activity. Some have grown more rapidly than the GNP (Gross Net
Product) and offer the expectation of continued growth. Others have maintained a
growth comparable to that of the GNP. A few have been unable to expand and have declined in economic significance. If people are to succeed as investors, they must analyse the economic significance of industries and invest in those stocks that offer continued success, measured by the industry’s ability to compete for its appropriate share of the GNP. Seeking industries that are expected to grow at a faster rate than the real rate of GNP the future seems to be a logical starting position.

B. Company Analysis

The specific market and economic environment may enhance the performance of a company for a period of time. It is ultimately the firm’s own capabilities that will judge its performance over a time period. For this reason the firms in the same industry are compared to one another to ascertain which one is the best performer, i.e. which firm earns the most and outperforms its competitors. To analyse a company, ratio analysis is the most frequently used tool. Ratios are popular because they can be easily understood and easily computed.

2.7.2 Technical Securities Analysis

This method of analysis discusses the price behaviour in a financial market. It reveals that a share price not only reflects the value placed on it, but also the hopes and fears of those buying and selling it. It helps to forecast changes in security prices by studying the market data. Further, the price is governed by basic economic and psychological inputs. As a consequence, over enthusiasm or panic can cause prices to move well away from their value, sometimes for prorated periods. In such a case the analyst thinks that the only important information to
work from is the picture given by price and volume statistics. With various tools, the analyst attempts to correctly catch changes in trend and take advantage of them\textsuperscript{13}.

\section*{2.8 Investment Decision Theory}

Investment decision refers to making a decision regarding buy and sell orders. Their decisions are influenced by the availability of money and flow of information. For making such a decision, the common investors may have to depend more upon a study of fundamentals rather than technical, although technical analyses are more important. If they invest in short-term and speculation scrips, technical analysts are more important. Besides, it is necessary for a common investor to study the balance sheet, annual report and other financial statements of the company to decide whether to buy that company’s shares or not. This is called fundamental analysis. The decision of what to buy is easier if investors are tuned to making fundamental analysis. Then the decision making becomes scientific and rational.

The following are the various investment decision theories

\subsection*{2.8.1 Psychological Aspects in Investment Decision}

The finance and investment decisions for some decades in the past were based on the assumptions that people make rational decisions and are unbiased in their predictions about the future. Sometimes people act in an obviously irrational way and they do make the mistakes in their forecasts for the future. Over the past decade it is the evidence that psychology and emotions influence both financial

\textsuperscript{13} Ibid., pp 390-91, 413
and investment decisions. Today not only the psychologists but the economists as well agree that investors can be irrational. And the predictable decision errors can affect the changes in the markets. So it is very important to understand actual investors’ behaviour and psychological biases that affect their decision making. In this part some important investment decision theories have been discussed.

2.8.2 Behavioural Finance Theory

Besides the psychological factors, the behaviour of the investors in the stock market is also very important. It involves the following:

A. Over Confidence

It causes people to overestimate their knowledge, risks, and their ability to control events. Interestingly, people are more over confident when they feel like. This type of perception occurs in investing also. Even without any authentic information, people believe that the stocks they own will perform better than stocks they do not own. However, ownership of a stock only gives the illusion of having control over the performance of the stock. Generally, investors expect to earn an above-average return. It involves gathering information, information analysis and decision making based on that information. However, overconfidence causes the investors to misinterpret the accuracy of the information and overestimate their skills in analyzing.

The overconfidence increases the volume of trade because it causes the investors to be certain about their opinions. Over confident investors have strong belief in their own valuation of a stock and concern themselves less about the others. Supposing an investor is receiving accurate information and is highly
capable of interpreting it, the result will be accurate. This is because of the individual’s skill and the quality of the information. In fact, these returns should be high enough to beat a simple buy-and-hold strategy. On the other hand, if the investor does not have superior skill and is influenced by over confidence, then the high frequency of turnover will not result in portfolio returns large enough to beat the buy-and-hold strategy and cover costs.

**B. Overconfidence Based Trading**

Generally, over confidence leads to trading too frequently leading one to purchase the wrong stocks. It also causes the investor to sell a good performing stock in order to purchase a poor one. When, the overall stock market increases, many investors may attribute their success to their own skill and become over confident. This will lead to greater trading by a large group of investors and may impact overall trading volume on the stock exchanges. Alternatively, overall trading is lower after market declines. Investors appear to attribute the success of the good period to their own skill and begin trading more. Poor performance makes them less over confident leading to lower trading activity.

**C. Overconfidence and Risk-Taking Behaviour**

Rational investors try to maximize returns and minimise the amount of risk taken. However, overconfident investors misinterpret the level of risk they take. The portfolios of overconfident investors will have higher risk for two reasons. First is the tendency to purchase higher risk stocks. Higher risk stocks are generally from smaller, newer companies. The second is a tendency to under diversify their portfolio.
D. Over Confidence and the Illusion of Knowledge

This type of psychology refers to the tendency to believe that more information increases one’s knowledge about something and improves one’s decisions. Using the internet, today investors have access to huge quantities of information. This information includes historical data, such as past prices, returns, the firms’ operational performance as well as current information, such as real-time news, prices, and the like. However, most individual investors lack the practical knowledge and experience and therefore not in a position as to how to interpret this information. That is, this information does not give them as much knowledge about the situation as they think because they do not have the training to interpret it properly.

Many individual investors realize that they have a limited ability to interpret investment information. So they use the internet for help. Sometimes, they can get analyst recommendations, subscribe to expert services, and join news groups. However, online investors need to take what they see on the screen, but not all recommendations really are from experts. However if investors perceive the messages have increased their knowledge, they might be over confident about their investment decisions. Another important criterion for the investors is the psychological factor viz., the illusion of control. People often believe that they have influence over the outcome of uncontrollable events. Early positive results give the investor greater illusion of control than early negative results. When a greater amount of information is obtained by the investors, illusion of control is greater as well. The more successes the investors experience, the more they will
attribute it to their own ability, even when much luck is involved. As a consequence, overconfident behaviour will be more pronounced in bull markets than in bear markets\textsuperscript{14}.

E. Mental Accounting and Investing

Mental budgeting matches the emotional pain to emotional joy. It is considered that pain of the financial losses are similar to the costs (pain) associated with the purchase of goods and services. Similarly, the benefits (joy) of financial gains are like the joy of consuming goods and services. People do not like to make payments on a debt for a purchase that has already been consumed. People show the preference for matching the length of the payments to the length of time, the goods or services that are used. Economic theories predict that people will consider the present and future costs and benefits when determining a course of action. Contrary to these predictions, people usually consider historic costs when making decisions about the future.

This type of behaviour is called the “sunk-cost” effect. The size of sunk costs is very important in decision making. The larger amount of money invested, the stronger is the tendency for “keep going”. The timing in investment decision making is also very important. Decision makers tend to place each investment into a separate mental account. Each investment is treated separately and interactions are overlooked. Mental budgeting compounds the aversion to selling losers.

As time passes, the purchase of the stock becomes a sunk cost. It may be less emotionally distressing for the investor to sell the losing stock later than

before. When investors decide to sell a losing stock, they have a tendency to bundle more than one sale on the same day. Investors integrate the sale of losing stocks to aggregate the losses and limit the feeling of regret to one time period. Alternatively, investors like to separate the sale of the winning stocks over several trading sessions to prolong the feeling of joy\textsuperscript{15}.

Mental accounting also affects investors’ perceptions of portfolio risks. The tendency to overlook the interaction between investments causes investors to misperceive the risk of adding a security to an existing portfolio. Normally, investors evaluate each potential investment as if it were the only one investment they will have. However, most investors already have a portfolio and are considering other investments to add to it.

Mental accounting sets the bases for segregating different investments in separate accounts, evaluating their gains or losses. People have different mental accounts for each investment goal and the investor is willing to take different levels of risk for each goal. Investments are selected for each mental account by finding assets that match the expected risk and return of the mental account.

**F. Emotions and Investments**

Investment decisions are complex as they include risk and uncertainty. In recent years the psychologists as well as economists have examined the role of emotions in decision making. People who have stronger emotional reactions seem to let them impact their financial decisions. The mood affects the predictions of the people about the future. People often misattribute the mood they are in to their

investment decisions. This is called misattribution bias. People who are in bad mood are more pessimistic about the future than people who are in a good mood. If the investors are in good mood, it will give a higher probability for good events and positive happenings and vice versa. So, good mood will increase the likelihood of investing in riskier assets and bad mood will decrease willingness to invest in risky assets.

Investors who are in a good mood can suffer from too much of optimistic decisions. Optimism could affect investors in two ways. Firstly, investors tend to be less critical in making an analysis for their decisions on investing in stocks. Secondly, optimistic investors tend to ignore the negative information about their stocks. This is why the price of the stock is frequently set up by the optimistic investors. Even if there are enough optimistic and pessimistic investors in the market, the optimists drive up the stock price with their buying, because pessimists are passive. For firms with a high degree of uncertainty, optimistic investors tend to set the stock price until that uncertainty is resolved. The prospects of large, well established firms have less uncertainty and their stock prices are generally more reflective of actual prospects than of optimistic prospects of investors.\(^\text{16}\).

### 2.9 Modern Portfolio Theory

Modern portfolio theory is no mystical concept. It relies on simple and basic ideas. A portfolio is a collection of securities. Since it is rarely desirable to invest the entire funds of an individual or an institution in a single security, it is essential that every security be viewed in portfolio context. In fact, the portfolio analysis

begins where the security ends and this fact has important consequences for investors. Portfolios, which are combinations of securities, may or may not take on the aggregate characteristics of their individual parts.\textsuperscript{17}

Portfolio analysis considers the determination of future risk and return in holding various blends of individual securities. Portfolio return and weighted average expected return of individual securities, in which portfolio variance, in sharp contrast, can be something less than a weighted average of securities variance. As a result one can sometimes reduce portfolio risk by adding another security with greater individual risk than any other security in the portfolio. This seemingly curious result occurs because risk depends greatly on the covariance among returns of individual securities.

By investing in more than one stock, an investor can reap the benefits of diversification. MPT (Modern Portfolio Theory) quantifies the benefits of diversification, also known as not putting all in one’s eggs in a single basket. For most investors, the risk they take when they buy a stock is that the return will be lower than expected. The risk in a portfolio of diverse individual stocks will be less than the risk inherent in holding any one of the individual stocks. It is assumed that a portfolio holds two risky stocks: one that pays off when it rains and another that pays off when it doesn't rain. A portfolio that contains both assets will always pay off, regardless of whether it rains or shines. Adding one risky asset to another can reduce the overall risk of an all-weather portfolio.

2.10 Conclusion

In this chapter the history of stock market in India, its growth, investment theories, and methods of stock trading procedures were discussed. The analysis shows that the demat account holder status in India had increased every year. Besides, the amount of shares trading growth always increased during the study period. It is clearly indicated that stock market trading growth had increased overall in India. The investment theories will help to check the portfolio management among equity that as a result it will reduce the risk elements in the stock market. This is so because the market value of equity is completely unpredictable and the information may help to assist the investors to invest in the stock market in a rational manner.