CHAPTER – 1

INTRODUCTION

The financial system of a country is expected to work in a way that facilitates the channelisation of resources from the surplus sectors to the deficit sectors which have a pressing need for them. This is needed with a view to ensure growth in the economy. In order to do this an economy needs a vibrant stock market which would ensure safety, integrity and liquidity to the investing community which makes investments in wide range of financial instruments. Studies conducted by Singh (1997), Levine and Zervos (1998) reveal that being a part of the financial system, stock markets play a crucial role to the economic growth of a country.

However, the Indian edifice of stock exchanges was characterised by deep rooted in-action for long which, in turn, resulted in the development of a hostile investment climate. The features of the Indian Stock Exchanges until recently may be described briefly as under:

a) Stock Exchanges were run as brokers’ clubs or casinos. For general public, these were places for gambling instead of investing avenues.

b) Due to the concentration of the stock exchanges mainly within the metropolis or with in the large cities, investors belonging to urban areas only and big business houses were engaged in monopolistic speculative activities. These dominant speculators used to control price for their own benefits. This one sided activity drove the common people outside the stock exchanges and stock investing activities, therefore, remained limited within a very small position of the total population which found the surplus sector of the economy.
c) Procedural delays and difficulties caused investors’ turn away from the stock exchanges. Some of the procedural delays were as follows:
   
i) settlement delays,
   
ii) increasing number of mismatched transactions,
   
iii) frequent closure of markets,
   
iv) frequent book closures etc.

d) All the information relevant to the investment decisions such as corporate information like – announcement of dividend, rights issue, time of holding Annual General Meeting etc. were not easily available to the investors.

   There were no mechanisms to restrict insider trading also.

e) Mutual Funds were not regulated. NAVs were not published.

f) Stock Exchanges were regulated through Securities Contracts (Regulation) Act.

   No inspection of the stock exchanges was undertaken.

   Given these shortcomings and dismal position of the stock market operations, comprehensive reform measures were needed to be implemented in order to address the issue like regulation, control, information, dissemination and decentralisation of exchanges. Moreover, during early nineties of the last century many developing countries undertook various structural adjustments as a part of economic policy changes to attract foreign capital and new investments in areas which were previously reserved or restricted only to the public sectors as well as to the domestic investors. Being a part of the liberalisation policy, the restructuring of stock markets of the country was essential. The Economic Survey, 1992-1993 strongly advocate the needs for speedier conclusion of transactions, greater transparency in operations, improved service to the investors and greater protection to encourage investment from global as well as domestic investing communities.
The reforms in the Indian Capital Markets actually started with the establishment of Security Exchange Board of India (SEBI). By a notification issued on 12.04.1988 SEBI was constituted as an interim administrative body to function under the overall administrative control of the Ministry of Finance of the Government of India.

SEBI Act was passed in the year 1992 with the basic objectives of providing the followings to the investing community:

a) Fairness: In order to attract easy flow of capital, markets should promote integrity in dealings, high standards of conduct and good business practice. An environment characterised by all these features may be described as a fair investment climate.

b) Efficiency: To ensure efficiency it is essential that the markets should be professionalised and also it should be made more sensitive to information. In addition to this it should offer high standards of service at a reasonable cost.

c) Confidence: For a stock market to be vibrant, it is the pre-requisite that market mechanism should be able to develop adequate confidence in both the investors and the issuers so that they can actively participate in and rely more on the securities and,

d) Flexibility: The markets should be resistant, innovative and be continuously responsive to the needs of all market participants.

In addition to these, various other structural and policy changes have been made in order to ensure steady performance of the market the ship. Some of these are:

a) In 1993 National Stock Exchange (NSE) was set up to encourage stock exchange reforms and with the objective of providing nation-wide stock trading facilities in an efficient, transparent and fair manner. It was also aimed at providing quality and prompt services to the investors based on equal access.
The establishment of NSE was a big jump towards the modernisation of Indian Stock Markets. From the origination from Mumbai the reach of NSE has been extended to twenty one cities within the country. NSE has two segments the capital market instruments segments and the debt segments.

In addition to the establishment of NSE, various other changes have been made in the security trading. The telephone based and open out cry system has been done away with and the Screen Based Trading and Open Electronic Limit Order Book (OELOB) systems have been introduced. In recent times, many of the exchanges all over the world have changed their way of operations from floor-based trading system to electronic trading system. Most electronic exchanges operate as a form of limit orders in the book. This system ensures a commitment to trade up to the specified quantity of the asset at least up to the specified limit price. The order book translates these commitments into trades using a queering rule that follows strict price then time priority. Orders may be executed in one or more trades. Orders could be cancelled at any time.

Several time related (Good-till-cancelled, Good-till-day, Immediate or cancel), price related (buy / sell limit and stop loss orders) or volume related (all or none, minimum fill etc.) conditions may be put to form an order.

Under this system, orders are sorted and matched automatically by computer keeping the system transparent, objective and fair.

NSE though, the first to start OELOB in India where members enjoy equal access and trading opportunities from different parts of the country through satellite network, the BSE also has started following very quickly and all transactions of this exchange also are done through screen-based system and through the satellite network.

b) In addition to the above, with a view to intimate quick settlement of transactions, T + 2 rolling settlement has been introduced from April 2003. Earlier, the trading cycle
would vary from 14 to 30 days. During this long time gap price could more adversely which could result in default of transfer. The T + 2 rolling settlement system works as follows:

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c) Moreover, to ensure transparency, electronic transfer and dematerialisation of securities have been initiated and to ensure better disclosure level, Electronic Data Information Filling and Retrieval (EDIFAR) system has been introduced. Inter-depository transfer through on line connectivity between CDSL and NSDL also has been established.

d) Equity derivatives has been introduced to hedge against the volatility in the market.

Thus, a stock market development process is in the desks. The stock market development is a multi-dimensional concept. It might be measured in terms of stock market size, liquidity, volatility, integration with global markets etc. [Garcia and Lin (1999)].
1.1. Stock Market Liquidity: As a Performance Indicator

Liquidity is one of the key indicators about the performance of any stock market. Liquid equity markets make investments less risky and more attractive. Although many profitable investments require a long run commitment of capital but in a liquid stock market investors are allowed to reconstitute their portfolios quickly without compromising much with unfavourable price revision. Thus, by making investment less risky and more profitable, liquidity brings more investments in the market.

Besides this positive views regarding stock market liquidity there are some arguments against the same reflecting the so called darker side of the liquidity. The critics have cautioned in respect of the investors’ myopia regarding this matter. Economists like Keynes (1935), Tobin (1978) have questioned the desirability of stock market liquidity in an economy. They have argued that in a very liquid market investors would be able to sell quickly their assets and would opt for there assets only which offer short run speculative gains. This may hamper long-run growth of the economy.

But empirical evidences negate this negative view. Demirguc-Kung and Levine, (1996) have suggested that liquid markets offer better and judicious allocation of resources and thereby enhance prospects of long-term economic growth. Ross Levine (1996) provides strong evidence in favour of the association between stock market liquidity and economic growth. According to him countries may be able to achieve big growth by increasing the stock market liquidity. The result of his study suggests that after accounting for various significant non-financial factors, e.g., political stability, education, efficient legal system etc., stock market liquidity is a reliable indicator of future long term growth.

However, according to Amihud, Mendelson and Pederson (2005) no capital market can be perfectly efficient to reflect all information. Investors and market makers
who collect information must be rewarded through better return than other less informed investors and market makers. This is due to the reason that without proper incentive nobody would be interested to gather proper information that could effect the price movements. This difference in information among the market players may result in illiquidity. But this illiquidity, according to these researchers, is nothing but the equilibrium level of illiquidity which must be present in the market to ensure provision of compensation to liquidity providers and also it acts as an aid to restrict the entrance of new liquidity providers in the market.

So far, the importance of liquidity in the context of an economy is established but the very term liquidity in the context of a stock and as well as for the market as a whole need to be defined and analysed.

1.2. Definition of Stock Market Liquidity:

According to Keynes [1930] an asset is more liquid than the other if it is more certainly realizable at short notice without sustaining losses. Thus, in case of a financial instrument, liquidity refers to the ease with which the buyers and sellers can promptly transact it with minimal impact on its price.

In the words of Shen and Starr (2002), "Liquidity in a financial market (is) the ability to absorb smoothly the flow of buying and selling orders ..." In other words in a liquid market temporary fluctuations in demand and supply can be absorbed without undue dislocation in prices.

Anil Bangia, Francis X. Diebold, Til Schuermann and John D. Stroughair (1998) describe two types of liquidity in the stock market which are explained in the following few lines as under:
**Exogenous liquidity**: It is described as the result of market characteristics which is common to all market players and remains unaffected by the actions of any one participant (although it can be affected by the joint action of all or almost all market participants). The markets in developing nations are characterised by heavy trading volumes, stable and small bid-ask spreads, stable and high levels of quote depth. Liquidity costs may be negligible for such positions when marketing-to-market provides a proper liquidation value. In contrast, the emerging markets are characterised by thinly traded and illiquid and are and illiquidity with high degree of volatiles of spread, quote depth and trading volume.

**Endogenous liquidity**: In contrast to the above, it is specific to one’s position in the market and is such that it may vary across the market participants, and also the exposure of any one participant is affected by one’s actions. It is mainly driven by the size of the position, the larger the size, the greater the endogenous illiquidity. In this respect Bloomfield et al. (2005) are of opinion that when market is operated using the ELOB system, there is no designated liquidity provider such as a specialist or a dealer under such a situation, liquidity can only be generated endogenously traders who submit orders to buy or sell are said to ‘make’ liquidity and the counterparties who choose to hit existing orders are said to ‘take’ liquidity.

There may be lack of liquidity in the stock market due to various reasons. Amihud, Mendelson and Pederson (2005) list some of the reasons. According to them, due to the presence of exogenous trading costs such as brokerage cost or fees, order processing costs and transaction taxes, a security may face the illiquidity risk through its entire life.

Secondly, if an agent does not find any buyer to sell his security quickly, he may be compelled to sell it to a market maker. The market maker, in turn, may face risk of adverse
price changes while holding the security in his inventory. Therefore, the market maker must be compensated for the risk of holding inventory that results in illiquidity premium.

Thirdly, illiquidity may arise due to the information asymmetry between the buyer and seller.

Finally, difficulty in locating counterparty and lack of friction-less trading is another reason behind the lack of liquidity in the stock market.

However, liquidity is not one dimensional. To understand liquidity in depth one need to be acquainted with the various dimensions of the same.

1.3. Dimensions of Stock Market Liquidity:

Kyle (1985) describes three dimensions of the stock market liquidity:

i) Tightness: ‘The ability of the market to execute a transaction that is to buy and sell an asset at about the same price and at the same time’ – may be regarded as the tightness of the market.

ii) Depth: It refers to the ability of the market to absorb quantities without having a large price effect.

iii) Resiliency: It measures the rate at which prices bounce back from an uninformative shock.

Persuad (2001) identifies a fourth component of the same. He names it as ‘diversity’. This is the degree of diversity among market participants in their market views and desired trades. According to Persuad lack of liquidity could lead to liquidity black-holes, where liquidity dries up and results in more volatility in security prices.
1.4. Stock Market liquidity and Asset Pricing Model:

Empirical study conducted by Chordia et al (2000) reveals that liquidity is not only a component of total risk and priced in terms of risk premium it also co-varies with liquidity of the market and industry. Therefore, liquidity risk is systematic and undiversifiable. Hence, liquidity variable could not be ignored in case of CAPM either. Study conducted by Amihud and Mendelson (1988) brings out the importance of incorporating liquidity into the CAPM. The fact which this research produces is that it is necessary to move from the two-dimensional risk / return frame work to a three-dimensional framework incorporating liquidity to frame a new model. According to Bodie, Kane, Marcus and Mohanty (2006) the CAPM model after incorporating liquidity could be written as:

\[ E(r_i) - r_f = \beta_1 [E(r_i) - r_f] + f(c_i) \]

where, \( f(c_i) \) denotes trading costs that has been used here as a surrogate to measure the effect of the illiquidity premium of security \( i \).

1.5. Stock Market Liquidity in Emerging Market:

Emerging Market is a stock market that is in transition, gradually increasing in terms of size, activity and level of sophistication. In the era of global integration, the research studies on these markets are becoming more important from both the academic and the investing perspectives as well. Many studies have been conducted on stock market activities of such markets. So far, liquidity aspect in this respect appears to be unexplored.

Present study, therefore, seeks to address the liquidity issues in the context of the Indian Stock markets.

This study has been designed as follows:
After the introduction, a review of the related literature has been presented in the
next chapter. Objective, Database and Methodology have been discussed in Chapter III,
Chapter IV has been devoted to the measurement of stock market liquidity. Inter-Market
Comparison has been done in Chapter V. Chapter VI deals with liquidity BSE and NSE at an aggregate level. The Association between Stock Market Liquidity and some selected macroeconomic indicators has been presented in Chapter VII. Association between liquidity at Scrip Level and Accounting variables has been empirically investigated and presented in Chapter VIII. Chapter IX concludes the study.