IMPLEMENTATION OF T+1 SETTLEMENT IN INDIAN CAPITAL MARKET

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Abstract: *Capital markets are in the midst of a global, systemic restructuring. Communication and technology have enabled individual financial markets to link together creating global market. Internationally, retail and institutional investors have been empowered leading to a more dynamic and sensitive market. The use of technology has enabled the investor populace to discount news more quickly and comprehensively. Technology has also enabled the formation of a larger and a fair market place. This platform has been a launching pad for the exponential growth in volumes showing a widespread and diverse interest in the securities market. As the volume of securities trading in the global market place has increased in the recent years, the need for shortening the settlement and clearance cycle as a cost saving and risk management discipline has become critical to the orderly conduct of business. As a result many jurisdictions around the world are adopting shorter settlement cycles. In view of this, the paper focuses on present settlement system and feasibility of T+1 in Indian capital market.*

Key Words: *Capital Market, T+1 settlement, Technology*

Introduction:

Capital market is the backbone of any country's economy. It facilitates conversion of savings to investments. It can be classified as primary and secondary market. The fresh issue of securities takes place in primary market and trading among investors takes place in secondary market. A major challenge for countries like India relates to the need for achieving efficiency in situations where large-scale increases in the quantum and complexity of processing of financial transactions occur. Today's investors have access to the latest information and have a wide array of options to choose from. Each investor would yearn for the best service or faster settlement at the least possible cost. Against this backdrop, efficiency has become critical if the payment system has to generate a high degree of investor confidence. Hence, ensuring safe and expeditious movement of funds at an optimal cost is the key to success of all financial markets reforms particularly settlement system. In order to protect the interest of investors, transactions should be settled in a short period of time. A further improvement in the process can be sought by introduction of T+1 day settlement, which would require quite a bit of change in the current style of workings.

2. Objectives of the study

- To study the clearing and settlement system in Indian Capital Market.
- To Study the working aspect of T + 2 settlement system in Indian Capital Market.
- To Study and analyze pre requisites for T+1 settlements in Indian Capital Market.

3. Methodology of the study

The present study is based on the Primary and Secondary sources of data. The primary data was collected through a structured "questionnaire" prepared and administered to sample investors in the study area. The study has selected a sample size of 100 investors based on the Belgaum & Hubli cities (Karnataka state) only. The data so collected are analyzed and classified for the purpose of identifying the Relevance and Working of T+2 Settlement, and the Pre requisites for T+1 Settlements into the Secondary Market. The study constructs various suitable tables and graphs for the purpose of achieving the objective of the study.

4. Hypothesis:

To achieve the above objectives the study has developed the following Hypothesis.

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H1: More than 50 percentage of the investors are unhappy/ facing difficulties with the present settlement system in the Indian Capital Market.

H2: 50 percentage and more investors prefer the implementation of T+1 settlement system in the Indian Capital Market.

5. Clearing and settlement system in Indian Stock Market

National Securities Depositories Ltd. (NSDL) and Central Depositories Services Ltd. (CDSL) provide electronic transfer of securities and more than 99percentage of turnover is settled in dematerialized form. All actively traded scrips are held, traded and settled in DEMAT form. SEBI had introduced T+5 rolling settlement in equity market from July 2001 and subsequently shortened the settlement cycle to T+3 from April 2002. After having gained experience of T+3 rolling settlement and also taking further steps such as introduction of STP, it is now felt appropriate to further reduce the settlement cycle to T+2 thereby reducing the risk in the market and to protect the interest of investors. SEBI had held several rounds of consultation with all the market participants and based on the consensus, decided to introduce T+2 rolling settlement in Indian equity market from 1st April 2003. At present T+ 1 settlement system is yet to implement in Indian Capital Market.

Table 1: Schedule of settlement in Indian Capital Market

Sl. No	Day	Time	Description of activity
1	T	--	Trade Day
2	T + 1	By 11.00 am	Confirmation of all trades, including custodial trades
		By 1.30 pm	Processing and downloading of obligation files to brokers/ custodians
3	T + 2	By 11.00 am	Pay-in of securities and funds
		By 1.30 pm	Pay-out of securities and funds

Sources: nseindia.com

6. T+2 Settlements in Indian Capital Market:

Settlement is the process by which investors pay for shares they have bought and receive payment for shares they have sold. The T stands for transaction date, which is the day the transaction takes place. The numbers 1, 2 or 3 denote how many days after the transaction date the settlement or the transfer of money and security ownership takes place. T+1 means that if a transaction occurs on a Monday, settlement must occur by Tuesday. Likewise, T+2 means that a transaction occurring on a Monday must be settled by Wednesday, assuming no holidays occur between these days. But if you sell a security with a T+2 settlement date on a Friday, ownership and money transfer does not have to take place until the following Tuesday.

Table 2: Settlement/payment cycle when customer Buys shares

Day	Transaction Day	Party with obligation activity
DAY1	T	Customer buys shares of a particular company.
DAY2	T+1	Customer funds to be paid by customer to the Broking house/ DP for shares purchased.
DAY3	T+2	The broking house /DP transfer funds to stock exchange.
DAY3	T+2	Stock exchange transfers shares to the DP.
DAY 3	T+3	Shares purchased on day 1 are reflected in the customer's demat account and are made available for delivery trade.

Sources: nseindia.com

7. Analysis of study

For the purpose of study, 100 investors are contacted from Belgaum, Hubli and Dharwad as sample area using survey method. Collected data is analyzed with proper weighted method and tested hypotheses as below.

7.1 Portfolio of Shares :

The portfolio of shares is a combination of different shares of different types companies held by the investor. During the survey the study reveals portfolio of shares held by the investor in the sample area are summarized from the following table 7.1 as follows.

Table 7.1 Portfolio of Shares by the investors

a. 1-3 stocks	b. 4-7 stocks	c. 8-10 stocks	d. More than 10 stocks
20	15	40	25
20percentage	15percentage	40percentage	25percentage

Source: Primary Data

The present study is based on the Belgaum Dharwad & Hubli cities of Karnataka State comprising of investor who invest in the stocks. Table No 7.1 shows the percentage of investor who invested in the stock market. Looking at the above table, 40percentage of the investors they prefer to invest their holdings in 8 to 10 stocks. 25percentage of the investors prefer to invest their holdings in more than 10 stocks.

7.2 Types of stocks normally trade:

In a stock market companies are classified depending upon the market capitalization of shares are classified in to large cap, mid cap or small cap. Market capitalization is a measurement of corporate size equal to the share price times the number of shares outstanding of a public company. As owning stock represents owning the company, including all its equity, capitalization could represent the public opinion of a company's net worth and is a determining factor in stock valuation.

Table 7.2 Stocks normally trade

Large cap stocks	Mid cap stocks	Sector specific stocks	Small cap stocks
35	20	15	30
35percentage	20percentage	15percentage	30percentage

Source: Primary Data

Table No 7.2 shows the type of stocks normally investor invest in the share market. It may be seen from the table that, there were 35percentage of the investor who invest and trade in the large cap and 30percentage of the investor invest and trade in small cap stocks. An overall observation of the type of stock normally trade indicates that, there were more number of trader are involved in speculation rather than investment.

7.3 Reasons for investment in equity market:

The reasons for investment in equity market may be voting rights, holdings by founders/directors/ acquirers which have control element, holdings by persons/ bodies with "Controlling Interest", government holding as promoter/acquirer, holdings through the Foreign Direct Investment (FDI) Route, Strategic stakes by private corporate bodies/ individuals and Equity held by associate/group of companies.

Table 7.3 Table showing Reasons for investment in equity market

Reasons	Reason A	*W	Total	Reason B	W	Total	Reason C	W	Total	Reason D	W	Total	Reason E	W	Total	Reason F	W	Total	Grand Total	percentage of ranks
a. Higher returns	65	**40**	2600	54	**50**	2700	52	**30**	1560	45	**60**	2700	48	**10**	480	52	**20**	1040	**11080**	18.36
b. Liquidity	70	**40**	2800	65	**50**	3250	59	**30**	1770	48	**60**	2880	42	**10**	420	39	**20**	780	**11900**	19.72
c. Regular dividends	15	**40**	600	35	**50**	1750	36	**30**	1080	45	**60**	2700	63	**10**	630	67	**20**	1340	**8100**	13.42
d. Speculations	85	**40**	3400	82	**50**	4100	79	**30**	2370	72	**60**	4320	70	**10**	700	69	**20**	1380	**16270**	26.96
e. Safety	5	**40**	200	20	**50**	1000	16	**30**	480	50	**60**	3000	52	**10**	520	60	**20**	1200	**6400**	10.60
F. Transparency	2	**40**	80	15	**50**	750	25	**30**	750	45	**60**	2700	54	**10**	540	89	**20**	1780	**6600**	10.94
			9680			**13550**			**8010**			**18300**			**3290**			**7520**	**60350**	**100.00**

Source: Primary Data

* W = weights

Table 7.3, shows that, 26.96 percentage of investor feels that equity market is for speculations purpose. Certain classes of investor's also feel that liquidity is very high 19.72 percentage, which will benefit them as compared to banks and other means. Unlike the other means of investment, equity assures returns that are generally higher return 18.36 per cent of investor feels so. Overall observations of the reasons for sample investor in equity market are speculation and getting higher return and liquidity of funds for a shorter period.

7.4 Reason for the down trend in stock market

The era of international capital mobility, geographical boundaries are no longer a matter of concern for international trade and finance. In view of this the study analyzed the reasons for downtrend in the stock market in the study area. The following table No.7.4 gives preferential weightage of reasons for down trend in the stock market.

Table 7.4 Down trend in stock market

Reasons	Reason A	W*	Total	Reason B	W	Total	Reason C	W	Total	Reason D	W	Total	Reason E	W	Total	Grand Total	percentage of ranks
a. Decreasing FDI inflows.	80	**40**	3200	74	**10**	740	69	**20**	1380	62	**50**	3100	58	**30**	1740	**10160**	20.09
b. Decline in the performance of companies	65	**40**	2600	62	**10**	620	70	**20**	1400	64	**50**	3200	67	**30**	2010	**9830**	19.43
c. SEBI regulations	78	**40**	3120	72	**10**	720	70	**20**	1400	62	**50**	3100	58	**30**	1740	**10080**	19.93
d. Global liquidity crisis	85	**40**	3400	79	**10**	790	72	**20**	1440	65	**50**	3250	61	**30**	1830	**10710**	21.17
e. Fear of recession	79	**40**	3160	71	**10**	710	63	**20**	1260	61	**50**	3050	54	**30**	1620	**9800**	19.38
			15480			**3580**			**6880**			**15700**			**8940**	**50580**	**100.00**

Source: Primary Data

W* = weights

Table No 7.4 shows that, 21.17 percentage of investor feels that down trend in the equity shock market is for Global liquidity crisis. On the other hand the decreasing Foreign Direct Investment in the country is also concern for the decrease trend in the stock market. Certain classes of investor's also feel that Decline in the performance of companies that 19.43percentage and SEBI regulations 19.93 percentage are also concern main reasons for the decline trend. An overall observation of the equity market in the study area is recession. It is concluded that there is the down trend in the study area. In general the entire world market that is the main concern for down trend in the entire equity stock market in the world.

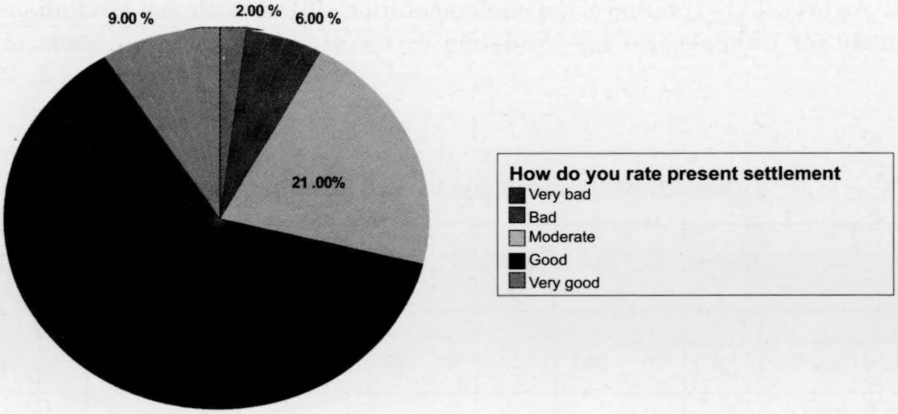
7.5 The present settlement period

The following table 7.5 gives the details of opinion about present settlement period.

Table 7.5 Opinion about Current Settlement period

Opinion	Response	Percentage of Response
Very good	9	9
Good	62	62
Neither Good or Bad	21	21
Bad	6	6
Very Bad	2	2
Total	**100**	**100**

Source: Primary Data



Out of 100 investor's surveyed, it was found that most of them were in favour of the present settlement period. 62 of them believed that the system is good, 21 of them regarded the system to be moderate. An overall observation of the settlement system is that, investors are finding difficulty in settling the transaction in pay in & pay out.

Table 7.6 Difficulties with the T + 2 Settlement

Reasons	Reason A	W	Total	Reason B	W	Total	Reason C	W	Total	Reason D	W	Total	Grand Total	percentage of ranks
a. Shorter settlement cycle.	89	**30**	2670	78	**10**	780	69	**20**	1380	62	**40**	2480	**7310**	24.91
b. Settlement failures / chance of auction in the trade.	94	**30**	2820	83	**10**	830	78	**20**	1560	72	**40**	2880	**8090**	27.56
c. Difficulty for foreign institutions to confirm and settle trade.	78	**30**	2340	67	**10**	670	65	**20**	1300	62	**40**	2480	**6790**	23.13
d. Automation from trade order and execution.	78	**30**	2340	78	**10**	780	78	**20**	1560	62	**40**	2480	**7160**	24.40
			10170			**3060**			**5800**			**10320**	**29350**	**100.00**

Source: Primary Data

W* = weights

Table No 7.6 shows that, 27.56 percentage of investor feels that there is chance of settlement failures in case of implementation of T + 2 settlements in Indian Capital market, this leads to shorter settlement cycle that is on same day trade and delivery of Delivery Instruction Slips to broker and execution of pay in and payout will happen on the same day. An overall observation of the implementation of T + 1 settlement in Indian Capital market is that India should ready for technological up- gradation in the stock market that leads to improvement in the settlement.

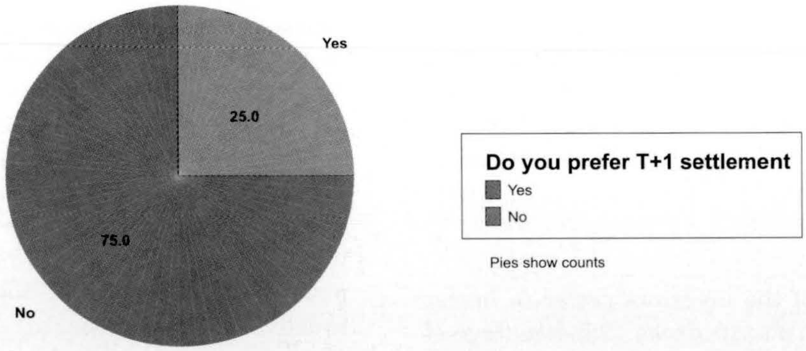
Table 7.8 Settlement cycle and alternatives for T + 1

Reasons	Reason A	W	Total	Reason B	W	Total	Reason C	W	Total	Reason D	W	Total	Grand Total	percentage of ranks
a. Usage of Internet banking and Phone Banking instead of Cheque/DD	94	**20**	1880	82	**30**	2460	74	**40**	2960	65	**10**	650	**7950**	21.27
b. Usage of SpeedE and Electronic Delivery Instruction Slips.	90	**82**	7380	85	**30**	2550	72	**40**	2880	71	**10**	710	**13520**	36.16
c. Opting for E contract notes by the investors.	85	**65**	5525	74	**30**	2220	71	**40**	2840	62	**10**	620	**11205**	29.97
d. Confirmation of trade through message by the NSDL/CDS.	78	**20**	1560	49	**30**	1470	35	**40**	1400	28	**10**	280	**4710**	12.60
			16345			**8700**			**10080**			**2260**	**37385**	**100.00**

Source: Primary Data

W* = weights

Table No 7.8 shows that, 36.16 percentage of investor feels that there should be usage of SpeedE and electronic Delivery Instruction Slips for settlement purpose. The implementation of T + 1 settlements in Indian Capital market, this leads to shorter settlement cycle that results into failure of transaction between the parties and minimization of such failure is usage of electronic delivery instruction slips and confirmation or trade through SMS message from NSDL / CDSL. An overall observation for the implementation of T + 1 settlement cycle in Indian Capital market is usage of banking technology for stock market which leads to less chance of failure in the transactions.



With the success of T+2, SEBI has given a thought towards the further reduction of settlement cycle to T+1 in April 2009. With the advancement in technology, the developments in capital markets, the officials are considering the option of introducing T+0 settlements sooner than later. The survey results showed that the investors are not in favour of T+0 settlement, as 75 of them said Indian exchange still needs to improve on the working efficiencies in order to implement the newer version. However 25 of them think the time has come to implement the shorter settlement cycle. An overall observation of the settlement system is investors are finding difficulty in settling the transaction in pay in & pay out.

8. Hypothesis Testing

Setting up and testing hypotheses is an essential part of statistical inference, in order to formulate such test, usually some theory has been put forward, either because it is believed to the true or because it is to be used as a basis for argument, but has not been proved. In each problem considered, the question of interest is simplified into two competing hypotheses between which we have a choice that is null hypothesis, denoted Ho, against the alternative hypothesis, denoted H1.

To achieve the objectives of the study, the study formulated and tested the following hypotheses with the help of Chi-Squared test. The Chi-Squared Test of association allows the comparison of two attributes in a sample of data to determine if there is any relationship between them. This test is to compare the observed frequencies with the frequencies that would be expected if the null hypothesis is true.

8.1 Null Hypotheses

H0: More than 50percentage of the investors are unhappy (facing difficulties) with the present settlement period.

Sample proportion

$$\frac{\text{No. of respondents in favour}}{\text{Total no. of respondents}} = \frac{16}{100} = 0.16$$

Critical Value

$M + Z\alpha * \sigma p$

$= 0.6+ 1.64 *0.045$

$= 0.6738$

$$\sigma p = \text{sqrt}\ \frac{P\ (1-P)}{n-1} =$$

$$= \text{sqrt}\ \frac{0.6\ (1-0.6)}{100-1}$$

$= 0.045$

Since, the observed value of Sample proportion [0.16] is lesser than the Critical value [0.6738], the Null hypothesis is rejected. It implies that the alternative hypothesis qualify for acceptance. It is concluded that majority of the investor are always happy with the present T+2 settlement system.

8.2 Null Hypotheses

H0: 50percentage and more investors prefer the implementation of T+1 settlement system in the Indian Capital Market.

Sample proportion

No. of respondents in favour

Total no. Of respondents

$$= \frac{25}{100}$$

$= 0.25$

Critical Value

$M + Z\alpha * \sigma p$

$= 0.6+ 1.64 *0.045$

$= 0.6738$

$$\sigma p = \text{sqrt}\ \frac{P\ (1-P)}{n-1}$$

$$= \text{sqrt}\ \frac{0.6\ (1-0.6)}{100-1}$$

$= 0.045$

Since, the observed value of Sample proportion [0.25] is lesser than the Critical value [0.6738], the Null hypothesis qualify for rejection. It is concluded that majority (69percentage) of the investor prefer T+2 settlement systems rather than the T+1 settlement system.

9. Major findings:

- 40 percentage of the investors prefer to invest their holdings in 8 to 10 stocks. 25percentage of the investors prefer to invest their holdings in more than 10 stocks.
- There are 35percentage of the investors who invest and trade in the large cap and 30percentage of the investor invest and trade in small cap stocks.
- Out of 100 investor's surveyed, it was found that most of them were in favour of the present settlement period. 62 of them believed that the system is good, 21 of them regarded the system to be moderate.
- It is found that, 27.56 percentage of investor feels that there is chance of settlement failures in case of implementation of T + 1 settlements in Indian Capital market, this leads to shorter settlement cycle that is on same day trade and delivery of Delivery Instruction Slips to broker and execution of pay in and payout will happen on the same day.
- It shows that 36.16 percentage of investor feels that there should be usage of SpeedE and electronic Delivery Instruction Slips for settlement purpose. The implementation of T + 1 settlements in Indian Capital market, this leads to shorter settlement cycle that results into failure of transaction between the parties and minimization of such failure is usage of electronic delivery instruction slips and confirmation or trade through SMS message from NSDL / CDSL.
- An overall observation for the implementation of T + 1 settlement cycle in Indian Capital market is usage of banking technology for stock market which leads to less chance of failure in the transactions.

10. Conclusion and policy inferences

The study has conducted to know the feasibility of T+1 and existing condition of T+2 settlement systems in Indian capital market. As cash inflow is increasing year by year because of FII and FDI, pay in and pay out system should be very transparent. When T+1 system in introduced, depositories and depositories participants should accept the system but practically it becomes burden to them since they are facing problem of time deadline as the market starts at 9.00 am. In case T+1 settlement system is implemented, SEBI has to reconsider the timing of pay in, which in turn help the brokers and investors to deliver their securities to respective clients. .

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