

Question Paper Security Analysis - II

Part D : Case Study (50 Points)

- This part consists of questions with serial number 1 - 5.
- Answer **all** questions.
- Points are indicated against each question.
- Do not spend more than 80 - 90 minutes on Part D.

Case Study

Read the case carefully and answer the following questions:

1. Perform structural analysis of the colour television industry according to Michael Porter's model.

(10 points)

2. The intrinsic value of the share of TDL Electronics Ltd. (TDLEL) may be represented by the following model:
$$\text{Share price} = 15 + 0.62 \text{ PE} + 0.3 \text{ DDM} + 0.08 \text{ BV}$$

Where PE is the price of the share based on P/E model DDM is the price of the share based on dividend discount model
BV is the price of the share based on book value model.

Was the share correctly priced on April 1, 2000?

(12 points)

3. Do you think the E-Commerce initiative in the colour television industry will be successful? Justify.

(8 points)

4. Perform ratio analysis on the financial statements of MEL for the years 1998, 1999 and 2000 and comment on the same.

(14 points)

5. Comment on the graph containing the share prices of MEL and the 30 day moving average with reference to the buy/sell decisions that can be made at various points of cross over.

(6 points)

The CTV (Coloured TV) market has grown by around 30% to 5mn units (inclusive of sales during World Cup) in FY2000. After an accelerated performance in the last two years, the industry has seen a slow growth of just 10% in this year (January-April2000). High tariffs on import of CPT and increased sales tax compounded with the drought and poor agricultural performance in FY2000 have cumulatively resulted in the fall in growth. The CTV sales in May 2000 are estimated to be under 0.4mn units. In spite of increase in the bank credit, the credit to the capital goods industry has not grown; however a lot of credit has been availed by the households mainly for the purchase of consumer durables.

An ICRA study reveals that the consumer product (FMCG) companies have witnessed a slowdown in sales for FY2000 as a result of higher expenditure of household income on consumer durables. Formidable entry barriers in terms of brand equity, distribution and service network characterize the Consumer durables industry. While manufacturing of most durables is neither capital nor technology intensive, the need for constant product improvisation makes R&D a key factor. Rationalization of duties and opening up of the economy has attracted a host of global majors. Increased competitive pressures and overzealous capacity creations have resulted in lower margins.

TVs form about 30% of the Rs100bn Indian consumer durables market. From 1991 to FY96 TV demand grew strongly by 20%pa, following a reduction in excise duty. In FY00, demand growth has picked up to 30%yoy, due to launch of CTV's priced below Rs10,000, exchange melas, government pay hikes and availability of consumer finance at attractive rates. The scenario is however different now, with the CTV sales slowing down

due to lack of any world cup factor and poor agricultural performance in FY00. Future growth rate for the 5mn CTV market is expected to be about 10-12%pa.

The consumer durable sector has seen a production growth of 22.8% in the first two months of FY2001 as compared to the earlier 14.1% in the corresponding period last year. This indicates that an overcapacity situation prevails due to low volume offtake. As per Ascon (Association Council of Confederation of Indian Industry), 100 out of the 125 industries surveyed posted moderate growth rate to high growth rate during FY2000, while the consumer durable industry (including CTVs, audio, cars, medium and commercial vehicles and personal computers) registered over 20% growth.

The years 1998 and 1999 have seen events like, the large pay-out to the government staff through the implementation of the 5th Pay Commission, World Cup 1999 and the success of the rabi crop. These events have changed the face of the CTV industry, which realized a growth of 29-30% for the last two years. In fact, for LG, (official sponsor of the World Cup 1999) this was the most successful brand building exercise, as the company saw a 95% growth in 1999.

While some players have seen a steady decline in sales, a few others have performed exceptionally well. Brands like Philips, Sony, Aiwa have seen their market shares dipping continuously, while the Korean multinationals, LG and Samsung, are on a rampage, having shown a commendable performance, contrary to the overall CTV industry performance. BPL has held its leadership in FY2000 by sacrificing margins with a 20.3% market share, despite the onslaught of multinationals. BPL volume sales increased by 35% to 1.18mn units for FY2000 whereas net sales increased by 4% only. The company showed a jump in CTV exports by 148%. However, the company did not perform well in the 1QFY2001 with its sales dipping by 25% to Rs.3,720.5mn. Most of the players are slashing prices and taking a re-look at their schemes. Prices are down by more than 20% and industry majors predict a sharper fall by 8% in the next two years. However, reduction in prices is not a viable option in the long run, and will definitely affect the profit margins. Contrary to this, LG has priced its products 10% higher than the market price and still managed to be the largest brand in consumer electronics and white goods for April 2000 by achieving sales of Rs.1.95bn.

The industry has seen innovative changes in the marketing strategies adopted by multinational players who are now customizing their products to suit Indian needs and requirements. In fact, LG has named one of its brands as 'Sampoorna' to give an Indian feel to the product. Samsung's Metallica, which was launched globally a few months back, is customized with special features like 360 watts of power for Indians. Promotion strategies to lure customers continue to exist with some changes while on the other hand companies have seen their rural market strategies going awry, as the rural rich seem ready to pay a premium for a good product rather than buy a product with fewer features. The consumer financing options meant for the rural markets have found more takers in the urban markets. Realizing the importance of rural areas, companies are improving their distribution network by increasing the number of dealer outlets.

This year, the industry saw CTVs being sold online. LG was the first to start with Lgezbuy.com. This strategy was followed by Philips and BPL. Online CTV sales are picking up, the indications being that LG's site generated sales worth Rs.10mn from 1,00,000 hits in less than two months after its launch. It won't be surprising to see most sales of premium products taking place online.

The preference for large size flat TVs is increasing and so the demand for glass (the major input for making picture tubes) will also increase. Since there is a global shortage of glass, the cost of picture tubes and indirectly of the CTVs will also rise.

All in all, growth will continue to come from introduction of new products with sophisticated features at reasonable prices. However, one of the important factors now will include integration of the distribution systems through the net.

Market Size

The television market in India is segmented into black & white and color TVs. B&W TVs still constitute the majority of sales. With several MNCs setting up shop in the past two years, CTV sales have shown a sharp rise. This growth has necessarily meant a fall in the share of B&W TV sales. After years of dominating the CTV market, domestic majors are steadily losing out to multinational brands. A major part of the incremental sales has been of TVs produced by companies such as BPL, Surya, LG and Samsung. Since the past three years, domestic players are fast losing their shares. The MNCs (excluding the foreign brands marketed by domestic companies) have an approximately 35% market share with domestic companies holding the rest. The Korean companies are growing higher than the industry average while others have shown a slow growth soon after the world cup.

Market Share vis-à-vis TV-sizes

During 1997-98, the 14" size category accounted for 15-18% of the total CTVs sold. For the period FY2000, they account for 20% of the total CTVs sold. The demand in this segment has witnessed a marked growth every year for the past two to three years. The reason being -- preference for this category among the lower middle class and multiple set buyers. The share of the 20" category, after declining to 38% in terms of volume in FY1998, further declined to 35% in FY2000. The 25" sets have also met with a good response, as the price differential with respect to a 21" set is less. As a result, sales of 21" category have shown a marginal rise. The 29" category TVs constitutes only about 2% of volume sales. However, the good news is that it showed the maximum growth in sales.

Market Share – Company-wise

The period leading to and including the month in which the Cricket World Cup 1999 was on, saw a windfall in the fortunes of most TV companies. In anticipation of the big event, CTV sales in the month of April and May rose nearly by 50% with newcomer Aiwa displacing Videocon and cornering the second spot in terms of market share in May 1999. BPL, with sales of about 0.1mn CTVs in May 1999, was the market leader.

Companies	Market share (%) (FY00)
BPL	20.3
Videocon	19
Surya	13
LG	11
Aiwa	10
Samsung	9
Philips	5.5
Sony	3
Sharp	3
Akai	2
Thomson	2
Others	2.2

Capacity Of Indian Majors

Supply Scenario (Figures in mn nos)	1997-98	1998-99	1999-2000
Demand – Domestic	2.65	3.5	5
Export	0.15	0.25	0.35
Supply	5.5	6.3	7.1
Surplus	2.7	2.55	1.75

Company	Capacity
BPL	7,30,000
Videocon	8,50,000
Surya	3,00,000
Others	2,50,000
Total	21,30,000

E-Commerce

E-Commerce is obviously the next area where the CTV players would want to move into. LG Electronics has already made a start by launching its website <http://www.lgezbuy.com/> in March 2000. Till mid-May, the site generated sales of Rs10mn from 1,00,000 hits. The company's objective is to have at least one million hits on its website and develop 200 Internet dealers in addition to the existing 3000 dealers nationwide.

LG offers attractive online financing options through its tie-up with Countrywide GE. The loan approvals are being given online. The website features LG's exclusive product range, a host of useful information, best buying propositions and special relationship programs with its customers. To generate revenue on its own, LGEIL plans

to turn into a full-fledged e-commerce mall from where products other than those of LG can be purchased. The company plans to hive off its website into a separate entity with an objective of being listed on the BSE by 2003.

The company's ad spend increased from Rs.240mn (FY1997) to Rs.700mn this year (FY2000 - year ending December). The company has budgeted around Rs.66mn in promoting the site, of which 30% will be used for promotions and advertisements. The company also plans to enter into co-operative marketing tie-ups with various companies to extend its reach.

The company is able to supply orders placed at the site within 24 hours and has engaged 75 dealers to meet this task. It would also set up additional 25 multimedia-enabled web kiosks at high traffic points such as airports, petrol pumps and departmental stores.

LG has recently signed an agreement with leading health portal *galaxyofhealth.com* to sell a specific range of consumer electronics products on the latter's health e-shop. The company will place advertisements of its health range of consumer electronics on the portal.

Companies to follow suit include Philips and BPL. Philips has announced the launch of its E-shop as a B2C e-commerce initiative at its website <http://www.philipsindia.com/>. E-Shop sells a range of high value products like flat screen TVs online. The e-shop initiatives are targeted to a potential customer base of 30mn Internet users by the end of 2005. In order to make the payments safe, the company has tied up with HDFC Bank for an automatic payment gateway. The company has also tied up with Elbee Courier Service for delivery services within seven days of order being placed.

BPL offers its consumer durable products on its site: <http://www.bplshop.com/> and has tied up with HDFC Bank to facilitate the financing of its online purchase transactions.

It is clear from the global trends that in the future in India, business generated from E-commerce will be higher. Looking at LG's performance, this trend is already visible (especially in case of high-end consumer durable products). More and more companies are to follow suit in order to grab the e-market share.

TDL Electronics Ltd.

TDL Electronics, makers of 'Surya' brand of TVs is a premium brand in the country. The company's brand value is estimated to be Rs.5-6bn. Despite raging price wars of television in the domestic market, Surya has maintained its premium image. The company has a dominance in B&W TVs in the rural market.

In last two years the company has gained lost grounds. Their market share in CTVs improved from 9% to 13%. Among the B&W TVs, it has dominance in rural market with a 11.2% share.

The world-class quality of Surya has enabled the company to make a breakthrough on the export front. Surya is a leading brand in Gulf market and also exports its models in Africa, Bangladesh, Sri Lanka and Nepal.

TDL has revamped its marketing strategies. It has introduced new product range (Candy-CTVs) targeting the young audience. A single company now undertakes distribution activities. Earlier the company had demarcated the market into North and South with two companies marketing one brand. Apart from being cost competitive, the strategy also ensures volume growth. Company's advertising has kept in pace with the changing market and now emphasis on technological prowess.

Introduction of specific products and aggressive promotions will ensure topline growth. Earlier during the year the company had capitalized on World cup. The company had an impressive Q1FY00 performance with a 33% revenue growth and a 138% rise in net profits to Rs.106mn. However the company could not achieve similar levels of performance in Q1FY01. Though the company has adopted the push sales strategy, replicating the World cup performance seems difficult task.

On the other hand to safeguard bottomline the company is emphasizing on cost effective measures. On cards are plans of equity dilutions to retire debts and fund its future projects.

TDL Electronics was set up in early 80s. Right from the fledgling days the company was involved in designing, manufacturing and marketing a wide spectrum of televisions. Surya has launched several ranges of televisions. The company is also engaged in marketing and servicing professional equipment from TVC Japan. The world class quality of Surya has enabled it to make a breakthrough on export front. Surya has a presence in Middle East, SAARC and African countries.

Business

TDL manufactures Television sets, videocassettes, videocassette recorders, audio and Compact Disc players. Apart from the items manufactured, the company trades in washing machines and musical instruments. Trading contributes to 44% of net sales.

Televisions (99%)

Presently Surya commands a premium of around 45% in 14"CTVs, 20% in 20" and 18%in 21" segment. The company's market share has moved up from 9% to 13% in CTVs and from 10.3% to 11.2% in B&W Segment in past one year.

The company believes that 60% of the TV sets are purchased by youth. Hence the company has developed products ranges targeting middle class, premium and youth segment separately. Introduction of 'Candy' is a prime example. Available in four different colours - Cherry Red, Mint Green, Lemon Yellow and Berry Blue, this 14" TV is targeted at young trendy viewers. The market for 14" segment is the fastest growing segment (about 15% of the total CTV market) and the company sales grew by 20% in FY00 from 70000 to 84000 units. However, the company's market share declined from 12.7% in this category to 9.4% for the said period.

The 20" Surya products have been positioned in the middle segment, to attain volumes among the competitors. In this category, the sales grew by 42.66% to 204000 during FY00 and achieved a market share of 12.2% against 11.7% in FY99. The 21" segment registered a 24% growth in FY00. The company's offtake increased from 0.2mn to 0.266mn and its market share inched from 13 to 14%. The 25" product is getting increasingly squeezed between the 29" and the 21" models. The company's market share in this segment came down to 8.7% from 9% in FY99 due to declining sale of 9000 numbers against 14000 in FY99.

The 29" CTV market is the most expensive one in the domestic CTVs in the country. The national sales of CTVs in this category increased from 0.16mn to 0.18mn vis-à-vis a decline in the company's sale from 7000 to 4000 units in FY00.

The company has crystallized plans for WEBCRUISER-internet TV. The pro-active measures adopted are expected to fuel sales of CTVs in the coming year.

The company capitalized on World Cup to promote brand and launch ads. TDL sold about 1.15lakh sets during April-May. Repeating of such performance is doubtful. However the new product launches are expected to ensure topline growth.

The following additional information is available:

1. The P/E ratio of the company as on April 01, 2001 is expected to be 20% higher than the average P/E ratio of the last three years.
2. The dividend per share paid by the company is expected to grow indefinitely at the same rate of growth as the compounded rate of the last three years.
3. The face value of the shares of the company is Rs.10.
4. The return expected by the equity shareholders of the company is 18%.

Sales breakup

Period ended	03/97	03/98	03/99	03/00
No. of months	12	12	12	12
Sales value (Rs mn)				
Audio systems	74.6	31.4	15.3	4.1
Television receiver	-	-	-	-
Television	3,619.8	5,029.4	6,515.9	7,506.0
Video cassette recorder/ player	66.3	52.8	20.9	8.5
Washing machines	16.3	1.1	29.6	132.1
Others	186.1	111.0	304.1	321.1
Sales volume(unit)				
Audio systems (Nos)	52,418.0	27,553.0	11,323.0	7,947.0
Television receiver (Nos)	-	-	-	-
Television (Nos)	521,006.0	799,888.0	1,068,609.0	1,191,757.0
Video cassette recorder/ player (Nos)	6,123.0	8,263.0	1,785.0	1,024.0
Washing machines (Nos)	3,028.0	497.0	4,204.0	18,846.0

Period ended	03/97	03/98	03/99	03/00
Unit realisation (Rs/unit)				
Audio systems (Nos)	1,424	1,139	1,354	516
Television receiver (Nos)	-	-	-	-
Television (Nos)	6,948	6,288	6,098	6,298
Video cassette recorder/ player (Nos)	10,821	6,394	11,687	8,322
Washing machines (Nos)	5,380	2,284	7,035	7,011

Profit & loss account (Rs mn)

Period ended	03/97	03/98	03/99	03/00
No. of months	12	12	12	12
Gross sales	3,963.2	5,225.7	6,885.8	7,971.9
Excise duty	(395.8)	(417.3)	(523.5)	(613.5)
Net sales	3,567.4	4,808.5	6,362.3	7,358.4
Other income	26.0	21.4	54.3	26.5
Total income	3,593.4	4,829.8	6,416.6	7,384.8
Raw materials	1,473.6	1,531.3	2,172.0	2,675.1
Stock adjustment (Inc)/ Dec	82.7	(126.7)	105.3	(121.9)
Purchase of finished goods	1,083.1	2,058.0	2,487.5	2,819.5
Cost of material	2,639.4	3,462.6	4,764.8	5,372.7
Employee cost	155.0	189.9	243.1	280.7
Power & fuel	7.1	6.3	8.3	10.0
Advertising/ promotion/ public	119.6	192.3	238.7	256.0
Freight & forwarding	89.3	110.4	173.3	178.3
Other expenses	227.7	408.7	385.2	475.0
Cost of sales	3,237.9	4,370.3	5,813.4	6,572.7
PBIDT	355.4	459.6	603.2	812.1
Interest & finance charges	126.7	183.3	224.4	192.7
PBDT	228.8	276.2	378.8	619.4
Depreciation	45.2	48.0	58.6	65.7
PBT	183.6	228.2	320.2	553.7
Provision for taxation	28.6	24.0	50.0	92.7
Extraordinary items/ Prior year	(140.1)	(0.6)	(0.6)	(12.6)
Adjusted PAT	14.9	203.6	269.6	448.4
Dividend payout (%)	46.4	46.4	45.7	70.3
Forex inflow	0.8	4.9	41.8	77.9
Forex outflow	597.1	722.8	666.0	751.1
Book value of quoted investments	26.2	26.0	26.0	25.6
Market value of quoted investments	15.5	10.9	10.9	9.1
Contingent liabilities	135.9	179.5	302.3	374.3

Balance sheet (Rs mn)

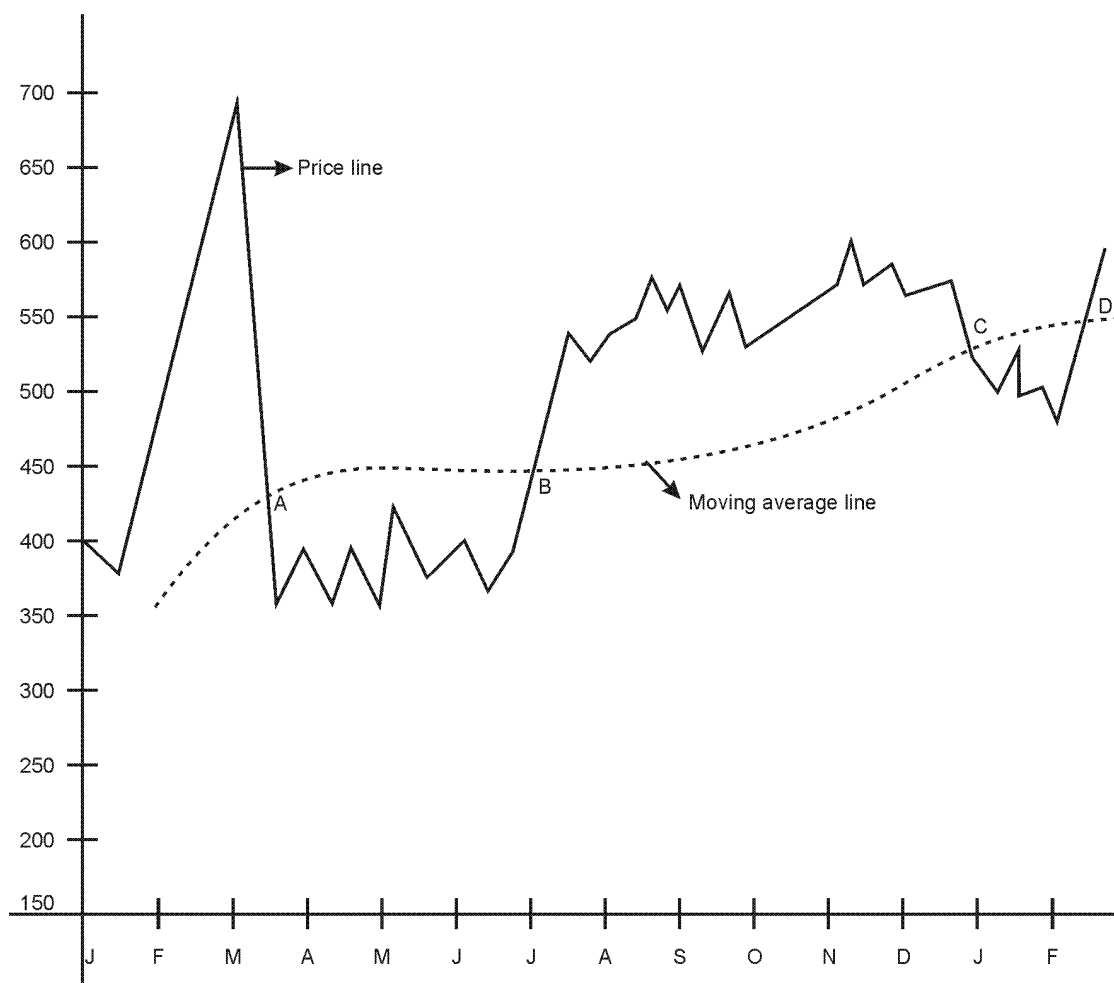
Period ended	03/97	03/98	03/99	03/00
No. of months	12	12	12	12
SOURCES OF FUNDS				
Equity capital	70.2	70.2	70.2	70.2
Preference capital	-	20.0	20.0	-
Capital reserve	0.7	0.7	0.7	0.7
Share premium account	369.0	369.0	369.0	369.1
Profit & Loss/ General reserve	636.9	787.3	997.3	1,357.5
Other reserves	36.0	42.5	48.9	55.9
Reserves and surplus	1,042.6	1,199.5	1,415.9	1,783.2
Net worth	1,112.8	1,289.6	1,506.1	1,853.4
Secured loans	515.6	1,048.8	1,014.4	1,299.8
Unsecured loans	392.3	448.6	647.8	630.9
Total debt	907.9	1,497.4	1,662.2	1,930.7
Capital employed	2,020.8	2,787.1	3,168.3	3,784.1
APPLICATION OF FUNDS				
Gross block	824.7	1,447.0	1,477.2	1,618.9
Accumulated depreciation	(164.3)	(211.9)	(269.6)	(334.7)
Capital work in progress	1.2	1.5	34.6	7.4
Total fixed assets	661.6	1,236.6	1,242.3	1,291.7
Investments	67.2	53.3	52.8	51.4
Inventories	674.9	1,012.4	936.2	988.2
Sundry debtors	473.0	754.4	955.8	1,066.5
Cash & bank balance	42.9	90.2	132.9	136.6
Total loans & advances	424.9	485.2	525.2	803.3
Sundry creditors/ Acceptances	(174.8)	(445.5)	(448.2)	(386.3)
Other liabilities	(327.6)	(669.3)	(517.8)	(583.5)
Provisions	(58.4)	(62.3)	(74.9)	(36.9)
Net current assets	1,054.8	1,165.0	1,509.2	1,987.9
Miscellaneous expenses	237.0	332.1	364.0	453.1
Capital deployed	2,020.8	2,787.1	3,168.3	3,784.1

The trading prices of M/s TDL Electronics from January 1996 till May 2001 is given as under:

Date	Open	High	Low	Close	Volume
01-01-2001	541.22	547.96	534.27	539.73	810
01-02-2001	490.19	495.41	481.78	490.87	1425
01-03-2001	475.76	483.1	467.54	476.1	3563
01-04-2001	443.74	450.89	429.38	440.48	2675
01-05-2001	482.14	489.6	470.4	482.66	5649
01-01-2000	467.45	474.78	452.36	462.69	8785
01-02-2000	588.94	604.9	559.25	578.71	19121
01-03-2000	442.5	456.74	419.12	434.11	7688
01-04-2000	392.1	407.97	384.39	398.15	6492
01-05-2000	406.28	420.19	396.07	408.09	18213
01-06-2000	383.85	396.15	376.3	385.11	7431
01-07-2000	442.25	458.48	431.4	446.49	12950
01-08-2000	507.49	525.09	489.37	510.47	17084
01-09-2000	505.94	516.31	487.62	501.68	8148
01-10-2000	515.65	531.88	503	518.27	10099
01-11-2000	550.86	558.81	546.59	551.29	8519
01-12-2000	558.78	564.85	551.58	558.4	1604
01-01-1999	88.62	90.29	87.11	88.63	3461
01-02-1999	134.1	137.45	129.64	133.96	11681
01-03-1999	202.01	209.99	196.19	204.34	18408
01-04-1999	199.23	204.15	191.79	196.59	6761
01-05-1999	190.18	194.29	183.31	188.31	4595
01-06-1999	173.15	177.68	169.29	173.39	11311
01-07-1999	237.06	244.06	228.14	236.35	36650
01-08-1999	343.61	350.23	330.06	341.43	21039
01-09-1999	389.18	402.5	375.65	389.56	39295
01-10-1999	510.01	527.24	490.07	507.58	25915
01-11-1999	443.61	457.42	431.26	444.62	17653
01-12-1999	439.13	449.13	420.53	430.1	12229
01-01-1998	57.13	57.92	56.18	57.09	774
01-02-1998	57.18	57.93	56.92	57.71	450
01-03-1998	70.38	72.29	69.79	71.71	1405
01-04-1998	93.25	96.31	90.13	93.38	12308
01-05-1998	94.05	96.6	91.48	93.96	3567
01-06-1998	70.75	72.36	68.7	70.2	1443
01-07-1998	75.54	77.89	74.27	76.04	4478
01-08-1998	79.75	81.95	78.75	80.88	5123
01-09-1998	84.19	85.47	83.35	84.7	2964
01-10-1998	81.92	83.41	80.75	82.08	1467
01-11-1998	81.37	82.31	80.87	81.7	532
01-12-1998	74.65	75.9	74.3	75.36	800
01-01-1997	69.16	70.76	68	69.08	2193
01-02-1997	60.87	61.74	60.18	61.01	532
01-03-1997	62.2	63.2	61.24	62.09	1235
01-04-1997	52.76	53.62	51.67	52.47	1134

Date	Open	High	Low	Close	Volume
01-05-1997	48.71	49.32	48.13	48.8	561
01-06-1997	52.44	53.55	52	52.9	833
01-07-1997	65.51	67.3	63.95	65.8	3924
01-08-1997	67.96	68.9	66.47	67.6	3975
01-09-1997	69.39	70.64	68.73	69.7	1857
01-10-1997	57.59	57.87	56.88	57.18	461
01-11-1997	50.66	51.01	49.88	50.32	418
01-12-1997	50.76	51.01	50.38	50.72	375
01-05-1996	83	83	81	81	1200
01-06-1996	75.59	76.8	71.92	73.56	14920
01-07-1996	77.79	80.34	75.51	78.12	13006
01-08-1996	82.94	84.56	80.65	82.24	7760
01-09-1996	76.68	78.33	75.6	76.85	1483
01-10-1996	56.63	57.61	54.62	55.88	5536
01-11-1996	52.36	53.42	51.59	52.74	889
01-12-1996	49.99	51.07	49.24	50.24	1029

30 day moving average and the price of TDL Electronic Ltd. are as follows:



END OF PART D

Part E : Caselets (50 Points)

- This part consists of questions with serial number 6 - 13.
- Answer **all** questions.
- Points are indicated against each question.
- Do not spend more than 80 - 90 minutes on Part E.

Caselet 1

Read the following caselet carefully and answer the following questions:

6. The caselet appears to be suggesting that fundamental analysis is better than technical analysis. Do you agree? Justify.

(7 points)

7. How can a head and shoulders pattern be said to be a bearish signal? Explain with reference to the tug-of-war between the buyers and the sellers mentioned in the caselet.

(6 points)

Technical analysis (TA), also known as charting, has been around for more than 100 years, and many of its age-old catch phrases, such as “the trend is your friend,” have become Wall Street truisms. But thanks to a proliferation of software programs and Web sites that give individuals access to the charting tools once reserved for institutions, technical analysis has gone more mainstream. And even through most investment pros and academics question its validity, the sheer number of enthusiasts popping up on CNBC and stock message boards makes one wonder, Is this alien tongue worth deciphering ?

Despite its elaborately named indicators, technical analysis is based on a simple premise : Past stock prices can be used to predict future stock prices. Fundamentals may drive stock prices in the long run, chartists say, but near term, what’s important is supply and demand. If investor demand for shares is greater than the number of shares selling at a particular price, the stock will rise; conversely, if there are more sellers at a certain price than buyers, the price will fall. A chart of stock price – whether drawn with bars, lines, or Japanese candlesticks – is a snapshot of the tug-of-war between buyers and sellers.

This picture, chartists say, is worth a thousand balance sheets and research reports. Why ? Because fundamental information is already reflected in stock prices. If a company’s fundamentals improve, investors will buy shares, and that will be captured in the stock chart. Chartists generally don’t care why a stock is rising never mind what business the company is in - only that it has started to move. The key is to spot a buying trend just as it occurs and ride it up before demand weakens. But if a price chart shows only what has happened up to the present, how can it predict a future trend?

Technical analysts believe that investors tend to react in predictable ways to situation they’ve faced in the past.

To see where prices are going, a chartist simply compares the current picture to similar charts from the past. This has evolved into various chart patterns. A head-and-shoulders pattern, for example, suggests that demand for the stock has peaked and is about to drop. A double bottom, formed by a stock hitting the same low twice, is bullish, indicating that buyers outnumber sellers. Aficionados claim that these time-honored tools can be applied to most securities, including currencies and commodities.

If only, before you cancel your subscription to Value Line and toss those annual reports, keep in mind that the efficacy of technical analysis is only slightly less controversial than the existence of UFO’s. Ever since the first recognized technical method, later dubbed the Dow Theory, was set forth in the 1890’s by the cofounder of the Wall Street Journal, Charles H. Dow, fundamental investors have argued that the stock market is much too complex to be represented by a simple graph. Dow proposed that the market’s overall trend could be determined by examining the relationship between the Dow industrial average and the Dow railroad average (now the transport average): both indices moving in the same direction signals a bull (up) or bear (down) market, whereas a divergence between the two is inconclusive. But can a chart, skeptics of the theory cry, really anticipate such fundamental information as a change in the economy? More recently, academics such as Burton G.Malkiel, author of A Random Walk Down Wall Street, have argued that efficient markets undermine charting strategies

Caselet 2

Read the following caselet carefully and answer the following questions:

8. If projecting the past growth rates into the future is not acceptable, how do you think earnings of companies should be estimated?

(6 points)

9. According to the caselet, “just because a company misses estimates by a penny or two does not justify lopping off billions from the company’s market value” Why do you think this happened?

(6 points)

10. According to the caselet “Its’ how investors process the information that separates the winners from the losers”. Does this statement conflict with the efficient market hypothesis? Explain.

(5 points)

Today’s information flow is the best and most efficient in the history of Wall Street. The playing field is as level as it has ever been with respect to information. But it’s not the access to or possession of information that is important: It’s how investors process the information that separates the winners from the losers.

Wall Street analysts certainly have a plenitude of information about the companies they analyze. So why has so much of the analysis generated by Wall Street left investors wanting? Why have so many analysts been so thoroughly discredited in the last couple of years?

Part of the problem is that the information gathered by analysts is applied to a faulty analytical framework. In general, most Wall Street analysts make the same fundamental errors:

Linear forecasts : Just because a company averages 20 percent to 30 percent earnings growth for a few years does not mean it is reasonable to project the same growth into the distant future. All business are cyclical; the only question for each is the extent of the cycle. And let’s forget the term “noncyclical” – it is a useless misnomer. The sooner Wall Streeters recognize that every company in every industry has naturally occurring cycles, the sooner they can help us make money.

Earnings fixation : Analysis of businesses needs to go a lot farther than Wall Street’s singular obsession with earnings. Detailed analysis of the balance sheet, for example, can identify assets that can be utilized to increase earnings, or conversely, debt issues that could limit earning potential. There are many ways to create value besides a stream of earnings, including reorganizations, spin-offs, mergers, stock buybacks and so on.

Make Your quarter, or die: CEOs need to be given a little more rope than Wall Street currently grants for making quarterly numbers. Quarter-to-quarter earnings pressure is too high on Wall Street. Just because a company misses estimates by a penny or two does not justify lopping off billions from the company’s market value. A greater focus on long-term earnings prospects would be more useful than concentrating on the next quarter or two.

Caselet 3

Read the following caselet carefully and answer the following questions:

11. What is counter-party risk? How can it result in a loss?

(7 points)

12. How does dematerialization of shares prevent frauds in the stock market?

(6 points)

13. What is meant by a synchronized trade? Why are such trades undesirable?

(7 points)

When the Bombay Stock Exchange Sensitive Index crashed 175 points for the second successive Friday last week, newspapers dubbed it ‘Black Friday II’ or ‘Black Friday revisited’. In fact, everything about the present payment scandal on the Indian stock markets has a sense of *deja vu* to it. The cast of characters, the lack of regulatory supervision and investors trapped in the maelstrom of a bull-bear war. It is a story that has been repeated every three years in India.

Interestingly, one half of the Indian capital markets has continued to develop and change all through the succession of scams and debacles. In terms of automation and legislation, it is on par with the best in the world; it has also reduced problems related to paper-based trading and counter-party risk-but when it comes to enforcement and supervision the rating is down to near cipher.

Ironically enough, the formula never changes. It is always a promoter-broker nexus, inside information, powerful political friends and lethargic regulators who act out the same hackneyed script. See how this works:

The players

Ketan Parekh, the latest holder of the Big Bull title, was a close associated of Harshad Mehta – the central figure in the multi-billion dollar securities scandal of 1992 and is implicated in one case related to those days.

Given this background, Parekh's growing influence over the market ought to have set the alarm bells ringing at the Securities and Exchange Board of India. Nothing happened.

Regulatory issues

A chronology of events over the last decade would show the failure to respond to market intelligence and lax supervision as SEBI's biggest problems.

SEBI got its statutory teeth in the clean up that followed the 1992 securities scam. Those days, the bourses used to be rocked with broker defaults every few months and innocent investors who were invariably caught in the crossfire lost heavily due to counter-party trade risks.

The professionally run and automated National Stock Exchange was set up as a counter to the BSE's recalcitrance and clubby functioning and refusal to change. When the NSE's turnover crossed the BSE, it actually kick-started the process of real change. The NSE relentlessly pushed for trade guarantees, on-line surveillance systems, elimination of paper-related fraud including fake and forged share certificates and finally dematerialization of shares.

To its credit, SEBI used its statutory status to push the development process along by enabling changes in regulation and legislation require to modernize and transform markets. However, when it came to supervision and enforcement, SEBI was found weak and gullible. A series of scandals followed, and each of them hit the retail investor the hardest.

In 1994-95, the war between Reliance and a group of market operators, over what is famously known as the share switching scandal, led to rampant short selling through inter-exchange deals on five bourses.

SEBI identified the cabal of brokers involved at each exchange, but the report was buried after some tough measures against the Pune Stock Exchange whose board was superseded.

The scrapping of the Controller of Capital Issues led to a three year orgy in the Initial Public Offering market, where industrialists and businessmen with fictitious projects decamped with several thousand millions of investor money. This killed the IPO market for three years. Again, seven task forces investigated the fraud, but nobody has been punished and no money recovered.

A couple of years later, the Rs.10 bn CRB Group, a financial conglomerate which was built entirely on hype, high interest borrowing and the promoter's friendship with regulators, politicians and god men, caved in.

The collapse of CRB and the IPO market triggered a run of finance companies. Several billions of rupees were withdrawn by investors and many companies never recovered from the blow. At about the same time, some enterprising, industrialists had promoted plantation companies, which had promised 100 percent returns and more to rake in over Rs.20 bn from gullible investors.

Next came the stunning reemergence of Harshad Mehta in 1998. The internet and the media was Mehta's vehicle. He launched a web site, which dispensed tips and made friends with newspaper management to bag a dozen odd news paper columns to spread his message. His formula was the same. He engineered a bull run in BPL, Videocon and Sterlite stocks through some arrangement with their promoters. However, his mega plans to expand his influence came a cropper because of excessive speculation. The bubble burst in June 1998 and scores of greedy brokers who were his fronts went bust.

A shameful cover up, involving the insertion of fictitious, **synchronized trades** followed, which ultimately led to the sacking of the BSE president and executive director. Many of Harshad's broker fronts were also punished, but the investigation against Harshad and his buddy Rajendra Bantia, a former director of the BSE board and vice-president – continues to drag.

END OF PART E

END OF QUESTION PAPER

Suggested Answers Security Analysis – II

Part D : Case Study

1. Threat of Entry:

The threat of entry in this industry is low due to the presence of a significant number of strong players who can retaliate the moves of a new comer effectively. While regulatory restrictions to entry are few, economies of scale can be significant and contribute to the threat of entry being low. Others barriers are brand equity, distribution and service network.

Threat of substitutes

The threat of substitute products is very low. While technically, it can be said that the availability of streaming video on the net can cause a threat to TVs from PCs., at present the threat is very insignificant.

Bargaining power of Buyer:

The buyers in this industry are the individuals spread all over the country and have little bargaining power.

Bargaining Power of Suppliers

At present, there is a shortage of the glass used for producing picture tubes. Therefore the bargaining power of the suppliers can be said to be moderate to high.

Intensity of Competitive Rivalry

The competitive rivalry among the existing players is now quite intense. The new comers LG, Aiwa and Samsung are running a close race. The local players – BPL and Videocon are trying to beat each other for the first slot. The slowdown in demand of late is likely to make it more intense.

2. i. The price of the company's share as on April 01, 2000 according to the PE model can be calculated as follows:

The average P/E ratio of the company in the last three years

$$= \left[\frac{398.15}{448.4 \div 7.02} + \frac{196.59}{269.6 \div 7.02} + \frac{93.98}{203.6 \div 7.02} \right] \frac{1}{3} = 4.864$$

Expected P/E after a year = $4.864 \times 1.2 = 5.837$

Value according to PE model as on April 01, 2000 = Present EPS $\times$ Expected P/E

$$= \frac{448.4}{7.02} \times 5.837 = 372.836$$

ii. The price of the company's share as per the dividend discount model can be calculated follows:

As extraordinary item was very high in 1997 the year has been excluded to find the growth rate in dividend.

$$\text{DPS in 1998} = \frac{203.6 \times 0.464}{7.02} = 13.45$$

$$2000 = \frac{448.4 \times 0.703}{7.02} = 44.9$$

$$\text{Growth rate of dividend} = \left(\frac{44.9}{13.45} \right)^{1/2} - 1 = 0.827 \text{ i.e. } 82.7\%$$

As the growth rate in dividend is coming more than return expected by shareholders hence it is not possible to find out share price from this model.

iii. The book value of the share as on April 01, 2000 $= \frac{70.2 + 0.7 + 369.1 + 1357.5}{7.02} = 256.05$

iv. Relating to the weight of 0.3 of DDM to the rates arrived by PE and BV the share price according to the model

$$= 15 + \frac{0.62}{0.7} \text{ PE} + \frac{0.08}{0.7} \text{ BV} = 15 + 0.8857 \times 372.836 + 0.1143 \times 256.05 = 374.48$$

As the actual price on April 01, 2000 is Rs.398.15, the share is over priced.

3. The success of the e-commerce initiative of this industry depends on the following factors:
- Whether more and more customers will be willing to buy TVs without physically seeing them.
 - Whether the companies will be able to please the customers and avoid any displeasure by exchanging the sets supplied where warranted.
 - Whether more and more customers open on-line bank accounts and will be transacting through them on the net while the companies may be ready to please the customers by all means, the other two are not very certain. As given in the case, a television, price is equivalent to a few months' salary for a middle class person. Whether people will be ready to buy such a high value item without seeing it first is debatable. It is said customers are, at the moment, not willing for it. Therefore the e-commerce initiative of this industry may be a limited success.

4. Profitability Ratios

	03/1998	03/1999	03/2000
i. $ROI = \frac{EBIT}{TA}$	$\frac{(459.6 - 48.0)}{(2787.1 + 445.5 + 669.3 + 62.3)} = 0.1038$	$\frac{(603.2 - 58.6)}{(3168.3 + 448.2 + 517.8 + 74.9)} = 0.1294$	$\frac{(812.1 - 65.7)}{(3784.1 + 386.3 + 583.5 + 36.9)} = 0.1558$
ii. $NPM = \frac{PAT}{NET\ SALES}$	$\frac{203.6}{4808.5} = 0.0423$	$\frac{269.6}{6362.3} = 0.0424$	$\frac{448.4}{7358.4} = 0.0609$
iii. $ROE = \frac{PAT - DP}{NW}$	$\frac{203.6}{1289.6} = 0.1579$	$\frac{269.6}{1506.1} = 0.1790$	$\frac{448.4}{1853.4} = 0.2419$
iv. $EPS = \frac{PAT - DP}{\text{Number of outstanding shares}}$	$\frac{203.6}{7.02} = 29.00$	$\frac{269.6}{7.02} = 38.40$	$\frac{448.4}{7.02} = 63.87$
v. $\text{Dividend Cover} = \frac{EPS}{DPS}$ $= \frac{1}{\text{Dividend Payout Ratio}}$	$\frac{1}{0.464} = 2.155$	$\frac{1}{0.457} = 2.188$	$\frac{1}{0.703} = 1.422$
vi. $\text{Earnings - Price Ratio} = \frac{EPS}{\text{Market price per share}}$	$\frac{29}{93.38} = 0.3106$	$\frac{38.4}{196.59} = 0.1953$	$\frac{63.87}{398.15} = 0.1604$
vii. $\text{Market yield} = \frac{\text{Dividend} + \Delta P}{P_0}$	$\frac{[29 \times 0.464 + (93.38 - 52.47)]}{52.47} = 1.036$	$\frac{[38.4 \times 0.457 + (196.59 - 93.96)]}{93.96} = 1.279$	$\frac{[63.87 \times 0.703 + (398.15 - 196.59)]}{196.59} = 1.254$

Leverage Ratios

	03/1998	03/1999	03/2000
i. $\text{Debt-equity Ratio} = \frac{\text{Long Term Debt}}{NW}$	$\frac{1497.4}{1289.6} = 1.16$	$\frac{1662.2}{1506.1} = 1.10$	$\frac{1930.7}{1853.4} = 1.04$
ii. $\text{Interest Coverage Ratio} = \frac{EBIT}{I}$	$\frac{459.6 - 48.0}{183.3} = 2.245$	$\frac{603.2 - 58.6}{224.4} = 2.427$	$\frac{812.1 - 65.7}{192.7} = 3.873$

Turnover Ratios

	03/1998	03/1999	03/2000
i. Inventory turnover = $\frac{\text{Cost of goods sold}}{\text{Average inventory}}$	$\frac{4370.3}{\frac{674.9+1012.4}{2}} = 5.18$	$\frac{5813.4}{\frac{1012.4+936.2}{2}} = 5.97$	$\frac{6572.7}{\frac{936.2+988.2}{2}} = 6.83$
ii. Accounts receivable turnover = $\frac{\text{Net sales}}{\text{Average accounts receivable}}$	$\frac{4808.5}{\frac{473.0+754.4}{2}} = 7.84$	$\frac{6362.3}{\frac{754.4+955.8}{2}} = 7.44$	$\frac{7358.4}{\frac{955.8+1066.5}{2}} = 7.28$
iii. Fixed assets turnover ratio = $\frac{\text{Net sales}}{\text{Average net fixed assets}}$	$\frac{4808.5}{\left(\frac{824.7-164.3}{2} + 1447-211.9\right)} = 5.07$	$\frac{6362.3}{\left(\frac{1447-211.9}{2} + 1477.2-269.6\right)} = 5.21$	$\frac{7358.4}{\left(\frac{1618.9-334.7}{2} + 1447.2-269.6\right)} = 5.98$
iv. Total assets turnover = $\frac{\text{Net sales}}{\text{Average total assets}}$	$\frac{4808.5}{\left(\frac{2020.8+174.8}{2} + 327.6+58.4 + 2787.1+445.5 + 669.3+62.3\right)} = 1.47$	$\frac{6362.3}{\frac{(3964.2+4209.2)}{2}} = 1.56$	$\frac{7358.4}{\frac{(4209.2+4790.8)}{2}} = 1.64$

The return on investment is showing an increasing trend, so is true for NPM, ROE and EPS. Of late, dividend payout has increased steeply resulting in fall in dividend cover, though the profitability has increased but the market price of the share has risen more in comparison and as a result Earning Price ratio has experienced steep fall after 1999. The same is reflected in market yield also. Slight fall D/E ratio indicates decrease in usage of debt which is further supported by the increase in interest coverage ratio. All the turnover ratios also indicate the improvement in efficiency of operations & receivables.

5. A and C : Price line falls below the rising average : an indication of a temporary drop to be followed up by a secondary upward reaction. A signal to buy.
B and D : Price line rise above the moving average line, which is flat : A trend reversal, which means a buy signal.

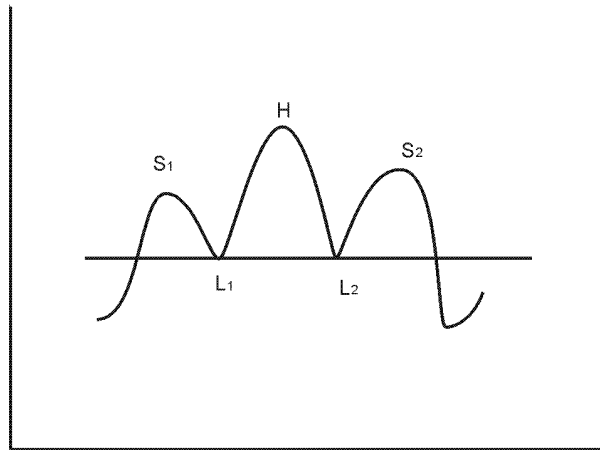
Part E : Caselets

Caseset 1

6. Fundamental analysis is based on an analysis of the overall health of a company and its potential to earn profits in future. This analysis also involves a study of the industry in which the company operates and the economy as a whole. Technical analysis, in contrast, is based on study of the price trends studies made on these two styles of investing in the US have shown that each of these worked very well but in different periods. Each of the two approaches also has its defects. The biggest defect of financial analysis is that it is mechanical and does not consider the qualitative factors, while fundamental analysis contains analysis of some qualitative factors, the significance of which is difficult to objectively estimate. Similarly, it is said that technical analysis becomes a self-fulfilling prophecy when every one in the market applies the same technique, while fundamental analysts face the problem of availability of the required information at a suitable time.

In sum, it can be said that both the types of analysis have their strengths and weaknesses, a middle of the road approach could be to use fundamental analysis to select stocks and also depend on technical analysis to time the market.

7. A typical head and shoulders pattern looks like the one given in the graph below. The shoulders are marked as S_1 and S_2 and the head as H. The lowest points reached between S_1 and H and between H and S_2 are marked as L_1 and L_2 respectively.



When the price reaches S_1 , the sellers feel the stock is overpriced and start selling and the price falls. At L_1 , the buyers feel the stock is underpriced and start buying thereby pushing up the price to a level higher than the earlier peak but again, the sellers feel the stock is overpriced and start selling to bring it back to the earlier level, which is indicated as L_2 for the second time, the buyers take over and push the prices up. But, this time round, they are not very powerful and therefore before the price reaches the earlier peak (H), the sellers overpower them and, they bring the price below the levels touched earlier low levels is what completes this formation.

Caselet 2

8. As pointed out in the caselet, projecting the past growth rates in earnings of companies into the future will not always give the desired results. The cyclical nature of the actual growth rates may be higher or lower than the projected growth rates. If the cyclical nature of the industry is to be reflected in the earnings estimates, one should realize that the industry is cyclical and try to estimate the changes in the cyclical nature of the industry brings into the earnings. A good way of estimating earnings in such cases is to go the round about way. First, estimate the total demand in the industry, then the market share of the company and its total sales and then finally proceed to the earnings estimation. A point to be noted is that, many analysts ignored the possibility of cyclical nature and expected the new economy industries to continue to grow. Their error of judgment appears to have been in estimating the timing of the critical down turn.
9. The loss in the value of companies which missed their earnings targets may not have been brought about by just the difference between the estimated and actual earnings. A part of it was brought about by the fact that the earnings estimates were missed, which would have had an adverse impact on the sentiments of the investors. Apart from sentiments, some valuation models that are based on the earnings of companies point towards lower value for the companies when earnings fall. This may have also contributed to the investors reducing the value they place on the companies.
10. Yes, this statement does conflict with the weak form of efficient market hypothesis. According to the hypothesis, it is not possible to make any gains in the long run from information relating to past prices. Similarly, the semistrong form of the hypothesis, which says that publicly available information is not useful to obtain above market return in the long run, also comes into conflict with the statements. The same logic can also be applied to the strong form.

Caselet 3

11. Counter party risk arises due to the possibility that the counter party to a transaction may not honour his obligations. For example let us say a stock is sold at Rs.100 and the counter party who agreed to buy later defaulted. If the stock price falls to Rs.75 in the mean time, the party who sold the stock loses to the extent of Rs.25.
12. Trading in shares held in paper form gives rise to the possibility of fake shares being delivered. The same is not possible with dematerialized shares. Transfer of dematerialized shares can take place instantaneously. So it will not be possible for companies to delay share transfer to manipulate share prices. The time taken for the settlement prices has been reduced as transactions can now be processed fast.

13. A synchronized trade is one in which two parties, with a plan to trade with each other, bypassing the order selection system of the exchange, put through a buy and a corresponding sell order for identical quantities and prices. Such orders are said to have been placed by Ketan Parekh through different entities owned by him. Such orders mislead the market into believing that there is a huge turnover in the particular stock and can have a significant impact on the prices of the stock.