

LIQUIDITY MANAGEMENT OF PUBLIC SECTOR IRON AND STEEL ENTERPRISES IN INDIA

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ABSTRACT

The paper makes an assessment of management of working capital, examines the adequacy or otherwise of the working capital, observes the liquidity position and areas of weakness and gives suggestions for removal of the weaknesses of the public sector Iron and Steel enterprises in India.

Introduction

India can develop rapidly through socialist model of industrialisation policy and its effective implementation. The success depends on the profitability of public sector enterprises. Public sector enterprises in India have been generally incurring losses because of under-utilisation of production capacity. This situation has led to a slow and inadequate rate of economic growth (GDP) in the country. Proper utilisation of fixed capital and working capital and production capacity promote the rate of growth, cut down the cost of production and makes the productive system efficient. Fixed capital investment generates production capacity and working capital helps in the utilisation of that capacity as maximum as possible. The emphasis so far has been given on the growth and efficiency of fixed capital. The management of working capital has often been neglected, resulting in sub-optimal utilisation of working capital. Unlike fixed assets, current assets reflect a company's daily activity. Usually they are most active in the company. Component administration of current assets solves the problems of under-utilisation of capacities.

If India has to make rapid economic progress, the public sector enterprises should earn sufficient surplus not only to finance their own expansion programme. Unless the situation is not remedied, the public sector enterprises in India cannot be expected to generate adequate surplus.

The performance of the public sector enterprises has progressively deteriorated year after year, while the investment in public sector enterprises has grown up significantly from Rs.29 crore (5 enterprises) as on 1.4.1951 to Rs.333475 crore (240 enterprises) as on 31.03.2003. This indicates the positive attitude of the government in the matter of establishment of more and more public sector enterprises along with higher blockage of funds, in general, and to generate greater employment opportunity, in particular, in spite of the wave of liberalisation during about the last decade in our

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country.

Iron and Steel Industry, which has been singled out for investigation in the present study, is, indeed, the backbone of economic growth in any country. A strong relationship has been found between the level of economic growth and the quantum of steel consumption in India.

Working capital offers a common front for profitability and liquidity management. The principal objective of the present research work is to make a study on the overall efficiency of the management of working capital with special reference to short-term liquidity. Liquidity refers to the ability of a concern to meet its current obligations as and when these become due. A firm should ensure that it does not suffer from illiquidity and lack of sufficient liquidity to meet its current obligations that may result in bad credit ratings, and, finally, it may result in the closure of the company. Proper management of working capital, therefore, ensures sound liquidity and profitability positions.

After independence, to ensure rapid economic growth, India set up five integrated steel plants in the public sector during the various Five-Year Plans and the production capacities of the existing plants were increased. At present, the total steel working capacity in our country is 43.5 million tons of crude steel and 26744 million tons pig iron and finished steel. The priority given by the country to rapid industrialisation in the public sector failed to some extent owing to poor capacity utilisation and consumption. The per capita steel consumption in India is about 24 kg. which is very low compared to that in the other countries, like, China where per capita consumption has already exceeded 120 kg. The opinion of the management of steel industry is very clear in the matter of under-utilisation of production and its per capita consumption. They clearly attributed such failure to the inadequacy of exogenous and infrastructure factors such as power, coal technology, transport facilities, railway network, export financing and tariff. Unless the management quantifies the under-utilisation consequent upon inadequate supplies from exogenous sources and infrastructures, they have to acknowledge to a large extent the responsibility for the unsatisfactory performance and inefficiency of the units. This call for a full diagnosis of the malady, that is, identification, analysis and quantification of the interfering constraints in achieving full utilisation of the capacities, thus opens a vast field for research and enquiry. In the present study, therefore, an attempt has been made to examine and evaluate the management of short-term liquidity of some selected public sector enterprises in India as a factor responsible for poor performance in the Iron and Steel Industry in India.

Objectives of the Study

The main objective of the present work is to make a study on the efficiency in the management of short-term liquidity in selected public sector Iron and Steel enterprises in India. More specifically, the objectives of the present study are:

1. To assess the management of working capital;
2. To examine the adequacy or otherwise of the working capital;
3. To observe the liquidity position and areas of weakness, if any;

4. To give suggestions for removal of the weaknesses.

Methodology of the Study

Company Covered

We select for our study two out of nine Central Public Sector Iron and Steel Enterprises operating in India. These two public sector enterprises are (1) Steel Authority of India Limited (SAIL, consolidation of all steel plants including subsidiary company, IISCO and MEL, which are again considered as separate units), (2) Indian Iron and Steel Company Ltd. (IISCO, which is a wholly-owned subsidiary of SAIL).

Period of the Study

The study covers a period of 12 years from 1991-92 to 2002-03. The reasons for confining the study to this period are: (1) liberalisation policy was adopted in India on 21st July, 1991, and (2) the availability of the latest audited data in the government publications.

Nature of data used

The study is based on the secondary data obtained from the audited balance sheets and profit & loss accounts and also the annual reports of the Public Enterprises Survey, Ministry of Heavy Industries & Public Enterprises, New Delhi. Besides, the facts, figures and findings advanced in similar earlier studies and the government publications are also used to supplement the secondary data.

Problems and Issues of Iron and Steel Industry in India

The growth of the Indian steel industry was seriously hindered by the slow growth in steel consumption, particularly during the last four decades. According to the *Performance Review, Iron & Steel, 1998-99* published by the Joint Plant Committee (JPC), the prime factors for the stagnation of the Indian iron and steel industry were as follows:

1. Emergence of large scale integrated steel plants during the first three plans under the control of public sector.
2. Sluggish growth in capacity and production during the 1970s and 1980s.
3. Stagnation of imports due to prohibitive duties and quantitative restrictions.
4. Over-valuation of the Indian currency and a protected and remunerative domestic market.
5. A dual price system, open market prices, over-shadowing controlled prices by large margins.

Despite the sea changes in the post-liberalisation era, Indian steel industry is currently faced with a state of recession in which most producers are left with unsold stocks and squeezed margins. This is of great concern as Indian iron and steel industry has invested capital worth Rs.90,000 crore and has employed over 4 to 8 lakh people. The per capita consumption of steel in India has increased from 5 kg. in 1950 to a mere 24 kg.

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in 1998, as against the world average of about 140 kg. India has immense potential for expansion of the use of steel as its economy grows. There has been a continuous downward movement in the projection of the demand of steel in the country, whereas China has continued to forge ahead and has never looked back. Between 1979 and 1999, Indian's production of steel grew from 9.5 MT to just 24 MT and her share of world production increased from 1.3 % to 3.15 % while India's population is 15 % of the world population. Per capita steel consumption is generally related to per capita national income, which is quite low in India, even lower than South Korea. Future growth in steel consumption in India largely depends on the general growth of her economy. India has improved her economic performance in the recent years after liberalisation and has achieved 6.5 % growth. Lawrence Summers, the US Treasury Secretary who visited India in the year 1999-2000, commended that Indian economy could easily grow @ 10 % a year provided economic reforms were implemented. This would increase India's living standards five-fold by 2020, provided the liberalisation process continues. India's further advantage for exporting steel is its location. India is closer to the markets of Asia than its competitors in Australia. At present, the country has an export surplus of steel.

An overview of the selected companies

We present below an overview of the two steel industries in the public sector in India under study.

Public Sector Iron & Steel Enterprises under the Study

Sl. No.	Name of Enterprise	Year of Incorporation	Production in MT As on 31 March, 2003
1	Steel Authority of India Ltd.	1973	1720000 MT
2	Indian Iron & Steel Co. Ltd.	1976	71603 MT

Source: *Public Enterprises Survey: 2002-03*

It would be pertinent to have a comprehensive backdrop on some important issues relating to the date of incorporation, place of registered/head office, objective, authorised and paid-up capital, location of plant(s) operating under each of them and operating results of each of the public sector Iron & Steel enterprises under study.

Steel Authority of India Ltd.

Steel Authority of India Ltd. (SAIL) was registered in 1973 under the Companies Act, 1956 and is an enterprise of the Government of India. The main objectives of SAIL are to plan, promote, and organise an integrated and efficient development of the iron and steel industry and associated input industries such as iron ore, coking coal, manganese, limestone, refractory, etc., and to manufacture steel, special steel, spun pipes, castings and distribution of the products on equitable and rational basis in the country.

The authorised and paid-up capital of SAIL were Rs.5,000 crore and Rs. 4130.40 crore respectively as on 31 March, 2003 and the Central Government holds 70.89 % share in the equity capital.

The registered office of SAIL is located at Ispat Bhavan, Lodi Road, New Delhi. The company has four integrated steel plants at Bhilai (BSP), Bokaro (BSL), Durgapur (DSP) and Rourkela (RSP) and three special steel plants, namely, Alloy Steel Plants at Durgapur (ASP), Salem steel plant (SSP) at Salem (Tamil Nadu) and Bhadravati (Visvesvaraya Iron and Steel Co. Ltd., a subsidiary of SAIL has been merged with SAIL with effect from December, 1998). The Indian Iron & Steel Co. Ltd. (IISCO), Maharashtra Electros melt Ltd. (MEL), SAIL Power Supply Co. Ltd. and Bhilai Oxygen Ltd. are subsidiaries of SAIL. It has also seven joint ventures set up with Indian/foreign companies.

Indian Iron & Steel Co. Ltd.

The Indian Iron & Steel company Ltd. (IISCO) was incorporated as public limited company in the year 1918 and the management of the company was taken over by the Government of India on 14 July, 1972. The Company has been brought under 'Steel Authority of India Ltd.' with effect from 01 May, 1978. The company is engaged in manufacturing iron & steel materials, castings and C. I. Pipes, coal raising, washing of coal, iron ore lump, etc.

Sluggish market condition, high interest burden, high input cost, low sales realisations, etc. are the main reasons for losses of the enterprise. The company is at present under Board for Industrial and Financial Reconstruction (BIFR). The final outcome of the restructuring proposal through joint venture, submitted by the SAIL, holding company, is under consideration of the BIFR.

The authorised and paid up capital of the company as on 31 March 2003 were Rs.550 crore and Rs.387.67 crore respectively. The SAIL, the holding company, holds the entire shares.

The registered office of the company is located in Calcutta. The units are located at Burnpur and Kulti in Burdwan District (West Bengal), Gua in West Singhbhum (Jharkhand) and Chasnalla and Jitpur in Bihar.

Estimated Value of Working Capital

The basic philosophy of management of working capital components is to ensure that short-term liquidity and solvency are quite adequate to meet the short-term financial obligation of banks, sundry creditors, payment of labour and overheads. A business entity needs funds for its day-to-day running of commercial operation. Estimated value of working capital is computed on the basis of working capital cycle by considering cost of sales per day. It is needless to mention that finance manager must know the exact period of working capital cycle (WCC) in order to ensure adequate liquidity and profitability. Estimated value of working capital = (Cost of sales per day x WCC) + minimum cash requirement.

The most modern management of working capital starts with sophistication of running business with minimum or even 'nil' cash balance. The cash balance obviously means both cash in hand and at bank. However, in estimating the requirement of working capital, we consider 'nil' cash balance. Thus, estimated value of working capital = Cost of sales per day x WCC

Findings of the Study

Efficiency of working capital depends on the adequacy of short-term liquidity position. Accordingly, the present study concerns particularly the estimation of adequate level of working capital and short-term liquidity position and in effect the overall efficiency of the liquidity management of public sector Iron and Steel enterprises in India in the post-liberalisation period. Proper management of working capital enables us to determine its adequate level, to identify its weakness, if any, and provides the bases of remedy. In the light of this statement, an attempt has been made to assess the working capital management and its liquidity position in public sector Iron and Steel enterprises in India under the study in two broad ways such as (i) assessment of working capital and its adequacy; and (ii) examination of the position and its efficiency or otherwise in the management of short-term liquidity.

(I) Assessment of working capital and its adequacy

Steel Authority of India Ltd

To estimate the amount of working capital needed for the cost of sales, a projected figure of working capital has been made through computations. The actual values of working capital are less than the estimated values of working capital throughout the period under study. The negative deviations are very significant. The estimated value of working capital is very high due to lengthening raw materials and stores holding period (Table 1). Sandler's A-test also proves that the differences between actual values of working capital and estimated values of working capital are significant. The calculated value of A-test is 0.136 while the tabulated value of A-statistic is 0.273 at 5% level of significance with 11 degrees of freedom. It shows that A-statistic is significant in this case. This indicates that actual values of working capital are, however, not sufficient in meeting current obligations.

Indian Iron & Steel Co. Ltd

With a view to estimating the amount of working capital needed for the cost of sales, a projected figure of working capital has been computed on the basis of working capital cycle periods. The actual values of working capital are less than the estimated values of working capital throughout the study period. It is very high due to a long raw materials conversion and receivable period, which led to negative deviations (Table 2). The calculated value of Sandler's A-test is 0.101 while the tabulated value of A-statistic is 0.273 at 5% level of significance with 11 degrees of freedom. From the above test it is clear that the differences between actual values and estimated values of working capital are significant. This shows that working capital requirements are not adequately fulfilled.

(II) Examination of the short-term liquidity position and its efficiency

In this section an attempt has been made to examine the position of short-term liquidity with the help of both the liquidity and the efficiency indicators. The position of short-term liquidity could better be explained in the light of its adequacy and management efficiency. For measuring adequacy and managerial efficiency, appropriate level of short-term liquidity needs to be estimated for comparison with actual level. As such, grand industry average/industry average has been computed on the basis of all the operating public sector Iron and Steel enterprises in India. Generally current ratio, liquid ratio, cash position ratio, age of inventory, age of debtors and age of creditors are highly useful in determining both the short-term liquidity position and the efficiency or otherwise of such management. Comparison of company-wise various liquidity and efficiency ratios with that of the grand industry average/industry average, which is used as a benchmark, would undoubtedly help in examining the pros and cons of the management of short-term liquidity. The position of short-term liquidity could better be explained if we consider the average of all the public sector Iron and Steel enterprises in India for comparison. But it should not be compared with the average of private sector Iron and Steel enterprises due to the factors of captive mines, pricing policy, social responsibilities and Government interference.

Liquidity Position based on Current Ratio (CR)

Current ratio is a measure of general liquidity and is most widely used to make the analysis of short-term liquidity of firm. A relatively high current ratio is an indication that the firm has liquidity and has the ability to pay the current obligation as and when they become due. Tables 3 and 4 shows that current ratio of SAIL during the period of study is satisfactory as its average is 1.65, which is slightly lower than 1.78, grand industry average, which is taken as yardstick. This ratio in case of IISCO is very poor as its average is 0.69. As per the analysis of this ratio it is observed that during 12 years under the period of study, SAIL has not reached the benchmark except in the years 1993-94, 1994-95, 1995-96, 1996-97 and 1997-98. while it has been decreasing continuously from the year of 1996-97 to 2002-03. IISCO is not able to pay its current liabilities in time.

The coefficient of variation of current ratio of SAIL and IISCO is 27.27% and 27.54% respectively, which shows lack of consistency during the study period, if compared to the coefficient of variation of industry as a whole which is 5.06%. Greater variability in the current ratio indicates improper or less efficient management of fund contributing to uncertainty in meeting the industries short-term financial obligations.

Liquidity Position based on Liquid Ratio (LR)

Liquid ratio is a more rigorous test of liquidity than current ratio. A high liquid ratio is an indication that the company has liquidity and ability to meet its current liabilities in time. But a low liquid ratio represents that liquidity position of the company is not good. As per Tables 3 and 4, liquid ratio of SAIL is not satisfactory as the company

average under the study period is 0.71. A very unsatisfactory liquidity position is seen in case of IISCO with an average of 0.43. The coefficient of variation in liquid ratio of SAIL and IISCO is 28.17% and 34.88% respectively. In the matter of the management of liquidity, it indicates less consistency in case of selected enterprises during the study period while compared to that for the industry, as a whole, which is 11.93%. It is clear from the above study, greater variability in the liquid ratio indicates improper or less efficient management of fund.

Liquidity Position based on Cash Position Ratio (CPR)

Cash is the most liquid asset. The ratio of cash to current liabilities is taken as cash position ratio, which is considered as most effective indicator to test the absolute liquidity position of any enterprise. In determining the cash, inventories and accounts receivable are deducted from current assets. Tables 3 and 4 disclose that cash position ratio of SAIL is much lower indicating poor liquidity position as the company average under the study period is 0.08 against grand industry average of 0.24. Again, a very poor liquidity position is found in case of IISCO with an average of 0.04. The coefficient of variation of cash position ratio of SAIL and IISCO is 37.5% and 75.0% respectively. In the matter of the management of liquidity, it indicates perfect consistency in case of selected industries during the study period because in the industry, as a whole, the coefficient of variation is found to be 87.5%. However, greater variability in the cash position ratio indicates proper efficient management of fund.

Liquidity Position based on Age of Inventory

Age of inventory establishes relationship between the cost of goods sold and average stock. This ratio measures the velocity of conversion of stock into sales. Age of inventory indicates duration of inventory in organisation. It shows moving position of inventory during the year. If age of inventory is minimum it means that the company's activity position is satisfactory; it is able to sell its product within shorter period of time which indicates sound liquidity position of organisation. On the contrary, if age of inventory is too high, it indicates slow movement of stocks due to low demand for product or excessive production by company, due to wrong stocking policy. Inventory is one of the major items in current assets, which shows investment of working capital in stock. As per Tables 3 and 4, age of inventory shows satisfactory trend in the case of IISCO, but unsatisfactory trend in the case of SAIL during the study period. Age of inventory in case of SAIL is very high throughout the study period due to high inventory level, but last four years in case of SAIL is slightly better because it is more than the industry average. The coefficient of variation of the age of stock of SAIL and IISCO is 23.34% and 15.80% respectively. This shows less consistency during the study period because in the industry, as a whole, the coefficient of variation is 11.43%.

Liquidity Position based on Age of Debtors

Age of debtors ratio gives an indication of the efficiency of the credit and collection policy of the firm and it will directly affect the liquidity position of the company. It is a

test of speed at which debtors are converted into cash. Lower the debtors to sales ratio, better is the liquidity of debtors and it means prompt payment by the customers. It is observed from Tables 3 and 4 that the age of debtors during the period of study ranges between 22 days and 58 days with an average of 42.80 days in the case of SAIL. It shows that in coming years company will be able to control their debtors and collection period because this ratio has been continuously decreasing since the year 1996-97 to 2002-03. Again, this ratio in case of IISCO ranges between 25 days to 230 days with an average of 118 days, while grand industry average is about 96 days. This indicates unsatisfactory situation for the company under study. The coefficient of variation of the age of debtors of SAIL and IISCO is 26.33% and 57.43% respectively. This indicates perfect consistency in case of SAIL, but lack of consistency in case of IISCO during the study period because in the industry, as a whole, the coefficient of variation is estimated to be 29.19%. It is clear from the study that in the case of IISCO there is greater variability in the age of debtors indicating improper or less efficient management of fund inasmuch as the fund for working capital shall not be available according to pre-determined plans. Moreover, there is a consequent increase in the bad debt risk.

Liquidity Position based on Age of Creditors

Age of creditors gives an indication of efficiency of the credit and payment policy of the firm and liquidity position directly depends on this period. Higher the credit payment period the longer is the age of creditors and better is the management of liquidity. On the other hand, the age of creditors shows inefficient and poor payment policy. Tables 3 and 4 show that age of creditors in case of SAIL and IISCO has longer period. It gives a clear indication of very satisfactory short-term liquidity position of the company. The age of creditors is 117.87 days in case of SAIL, which is more than grand industry average, 95.81 days and it is 320.49 days in case of IISCO, which is again more than grand industry average, 227.88 days. The coefficient of variation of the age of creditors of SAIL and IISCO is 7.07% and 16.93% respectively, which shows more consistency during the study period because in the industry, as a whole, coefficient of variation is 39.98%. It is obvious that there is a lower variability in the age of creditors indicating efficient management of payment policy.

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Table 1

Working Capital Cycle, Estimated Working Capital and Actual Working Capital of SAIL

Year	Days						Rupees in lakh		
	R	W	F	D	C	WCC	Estimated working capital	Actual working capital	Deviation
1991-92	123.69	0.00	71.85	79.94	155.85	119.63	282668.97	174904	(-) 107764.97
1992-93	125.70	0.00	98.47	86.61	173.58	137.20	351015.11	288426	(-) 62589.11
1993-94	124.62	0.00	103.48	95.69	148.18	175.61	519028.59	414779	(-) 104249.59
1994-95	105.52	0.00	88.47	99.60	135.04	158.55	549019.12	354865	(-) 194154.12
1995-96	104.70	0.00	85.37	110.33	143.81	156.59	526620.32	496776	(-) 29844.32
1996-97	106.12	0.00	107.60	128.54	143.16	199.10	675301.93	620140	(-) 55161.93
1997-98	110.71	0.00	135.39	122.81	141.19	227.72	828528.96	667139	(-) 161389.96
1998-99	156.54	0.00	119.54	102.26	129.24	239.10	1010652.11	519132	(-) 491520.11
1999-00	140.01	0.00	81.40	83.08	132.34	172.15	803724.02	210904	(-) 592820.02
2000-01	114.51	0.00	67.08	71.43	151.24	101.78	435542.27	156797	(-) 278745.27
2001-	88.55	0.00	59.94	67.77	149.81	66.45	300580.48	34765	(-) 265815.48
02	82.40	0.00	46.48	53.31	143.21	38.98	191500.30	(-) 737	(-) 192237.30
2002-									
03									

Source: Compiled from Annual Reports of the PE Survey.

Table 2
Working Capital Cycle, Estimated Working Capital and
Actual Working Capital of IISCO

Year	Days						Rupees in lakh		
	R	W	F	D	C	WCC	Estimated working capital	Actual working capital	Deviation
1991-92	109.69	0.00	34.77	119.03	222.64	40.85	8012.31	(-) 6299	(-)14311.3
1992-93	103.82	0.00	51.20	187.50	316.20	26.32	6135.30	(-)12165	(-)18300.3
1993-94	110.15	0.00	51.34	214.52	364.37	11.64	2828.62	(-)17829	(-)20657.6
1994-95	102.15	0.00	45.39	226.47	389.91	(-)15.90	(-)3981.32	(-)13849	(-)9867.7
1995-96	109.57	0.00	42.54	197.67	328.67	21.11	5910.11	(-)12877	(-)18787.1
1996-97	96.99	0.00	48.15	181.03	394.28	(-)68.11	(-)20280.7	(-)29077	(-)8796.3
1997-98	101.85	0.00	51.45	165.46	310.43	8.33	2798.61	(-)40434	(-)43232.6
1998-99	93.70	0.00	53.93	146.51	294.15	(-)0.01	(-) 3.26	(-)18017	(-)18013.7
1999-00	72.76	0.00	47.42	134.02	229.58	24.62	8780.71	(-)21762	(-)30542.7
2000-01	91.45	0.00	50.63	95.56	278.15	(-)40.51	(-)11664.8	(-)39164	(-)27499.1
2001*0	63.40	0.00	41.81	63.84	298.60	(-)129.5	(-)36879.5	(-)55658	(-)18778.5
2	52.96	0.00	29.26	38.83	326.90	(-)205.8	62179.67	(-)73834	(-)136014
2002-03									

Source: Compiled from Annual Reports of the PE Survey.

Table 3

Different Liquidity Ratios of SAIL

Year	CR	LR	CPR	Age of Inventory (Days)	Age of Debtors (Days)	Age of Creditors (Days)
1991-92	1.43	0.55	0.08	135.56	21.90	163.03
1992-93	1.65	0.60	0.06	165.87	36.50	159.93
1993-94	2.02	0.87	0.07	162.94	51.10	140.86
1994-95	1.76	0.84	0.05	139.35	47.45	149.37
1995-96	1.99	0.99	0.14	138.43	54.75	140.86
1996-97	2.32	1.00	0.06	164.98	58.40	126.63
1997-98	2.20	0.88	0.11	164.98	54.75	140.76
1998-99	1.84	0.74	0.06	167.23	47.45	152.25
1999-00	1.34	0.59	0.06	122.28	40.15	143.27
2000-01	1.23	0.57	0.10	106.82	37.56	159.82
2001-02	1.05	0.45	0.06	94.63	32.34	153.87
2002-03	0.97	0.49	0.07	81.70	31.20	151.35
Average	1.65	0.71	0.08	138.80	42.80	148.00
Grand	1.78	1.09	0.24	114.12	95.81	227.88
Average	0.45	0.20	0.03	32.40	11.27	10.46
S.D.	27.27	28.17	37.50	23.34	26.33	7.07
C.V. (%)						

Source: Compiled from Annual Reports of the PE Survey.

Table 4
Different Liquidity Ratios of IISCO

Year	CR	LR	CPR	Age of Inventory (Days)	Age of Debtors (Days)	Age of Creditors (Days)
1991-92	0.89	0.57	0.04	86.21	36.50	286.42
1992-93	0.86	0.56	0.04	96.97	182.50	348.21
1993-94	0.80	0.56	0.04	97.95	186.15	387.17
1994-95	0.87	0.63	0.03	94.59	229.95	404.33
1995-96	0.84	0.54	0.02	87.53	127.75	286.47
1996-97	0.72	0.44	0.03	88.21	164.25	333.17
1997-98	0.61	0.34	0.02	85.55	135.05	311.96
1998-99	0.79	0.48	0.03	85.61	135.05	270.70
1999-00	0.71	0.38	0.02	74.13	94.90	217.15
2000-01	0.53	0.28	0.03	80.48	68.59	304.52
2001-02	0.35	0.15	0.03	68.22	28.76	311.37
2002-03	0.34	0.22	0.13	51.89	24.93	384.45
Average	0.69	0.43	0.04	83.11	117.87	320.49
Grand	1.78	1.09	0.24	114.12	95.81	227.88
Average	0.19	0.15	0.03	13.13	67.69	54.26
S.D.	27.54	34.88	75.00	15.80	57.43	16.93
C.V. (%)						

Source: Compiled from Annual Reports of the PE Survey.

Conclusions of the Study

1. The actual values of working capital has been found to be lower than the estimated values of working capital for both the companies under study. This indicates inadequate level of working capital for both of them. This unsatisfactory position may be attributed to low raw materials inventory in the case of SAIL and to low level of receivables in the case of IISCO.
2. Poor liquidity position in case of both SAIL and IISCO.
3. Inefficient inventory management in case of SAIL.
4. Inefficient receivable management in case of both the enterprises.

Suggestions of the Study

1. Actual values of working capital is required to be increased by making additional investment specifically in raw materials in case of both SAIL and IISCO; and in receivables in particular, in case of IISCO.
2. To remove poor liquidity position of SAIL and IISCO, further investment is required to be injected in the form of liquid resource for substantial reduction in the burden of current liabilities in order to improve liquidity position.

3. Inventory management is required to be improved specifically for SAIL. It could be achieved by the proper application of inventory control system, such as, EOQ, JIT, ABC analysis, etc. and improvement of their sales management so as to reduce stock piling of finished goods.
4. To find a solution to the problem of receivables management, specifically for IISCO, MIDHANI and FSNL, an effective professional co-ordination between sales, production and finance departments is called for. Prompt billing, timely reminders to defaulting customers and immediate corrective actions should be ensured. The investment in loans and advances should be minimised to the extent possible.

Limitation of the Study

The study suffers from certain limitations.

1. Study solely depends on the published financial data, so it is subject to all limitations that are inherent in the condensed published financial statements.
2. We have selected two operating public sector Iron and Steel enterprises but not considered all the operating units as sample, which may leave some grounds of error.
3. Also, in spite of being aware of the fact that inflation is so certain a factor, it could not be taken into consideration in the present study.
4. Study is purely based on public sector Iron and Steel enterprises, we could not compare with the data and information of efficiently managed private sector companies for testing of liquidity position and its efficiency.

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