Debtors' management : A case study of Andhra Pradesh paper industry

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The paper aims at evaluating the performance of the debtors' management of the paper industry in Andhra Pradesh. For this purpose, the analysis of trends in sales and debtors, debtors' size, turnover, collection period and aging of receivables has been carried out.

Debtors occupy an important position in the structure of current assets of a firm. They are the outcome of rapid growth of trade credit granted by the firms to their customers. Trade credit is the most prominent force of modern business. It is considered as a marketing tool acting as a bridge for the movement of goods through production and distribution stages to customers.[1] It is generally believed that credit policy stimulates sales as it helps in retaining existing customers and winning clients from rivals. Trade debtors represent amounts owed to the firm as a result of credit sale of goods or services in the ordinary course of business.[2] The key function of credit management is to opitomise the sales at the minimum possible cost of credit. According to Joseph, "The purpose of any commercial enterprise is the earning of profit. Credit in itself is utilised to increase sales, but sales must return a profit".[3] The offer of trade credit should not only optimise sales but also lead to maximisation of overall return on investment. Management of receivables, therefore, should be based on sound credit policies and practices.

Aim of the Study

The present paper aims at evaluating the performance of the debtors' management of the paper industry in Andhra Pradesh. For this purpose, the analysis of trends in sales and debtors, debtors' size, turnover, collection period and aging of receivables has been carried out.

Sample Design

In order to draw meaningful inferences the paper covers ten-year period commencing with 1989-90 and ending with 1998-99. As at the end of year 1999, there were 22 paper mills consisting of three large and 19 small paper mills, with an installed capacity of 4.92 lakh tonnes per annum. Of the 22 paper mills, three mills were closed between 1989-90 and 1998-1999 for various reasons and four new mills were started between 1991 and 1999. The closed and the newly started mills have been excluded from this study, because the life period of newly started paper mills is less than the study period and the study about closed units is not possible in view of inaccessibility to data. This leaves a total of 15 mills for the purpose of the study. Three of these are large firms and 12 are small mills. The researcher has been successful in getting response from all the three large mills and from only three small mills. The sample size, therefore, constitutes six mills. It is felt that these six mills are represen-tatives of the total paper industry in Andhra Pradesh. The sample mills are, A. P. Paper Mills Limited (A. P. Paper), ITC Bhadrachalam Paper Boards Limited (Bhadrachalam), The Sirpur Paper Mills Limited (Sirpur), Coastal Papers Limited (Coastal), Delta Paper Mills Limited (Delta), Vamshadhara Paper Mills Limited (Vamshadhara). The

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Table-1
Indices of Sales and Trade Debtors of Sample Paper Mills

(Rs. in lakhs)

Particulars	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
CONSOLIDATED										
Sales	38092.91	41862.67	46456.08	51298.56	55542.99	65325.36	75994.75	71988.52	69742.99	79759.13
Indices	100	110	122	135	146	171	199	189	183	209
Trade Debtors	4124.74	4376.89	5625.34	6248.16	6173.62	6041.39	8661.13	8464.82	9860.46	10729.05
Indices	100	106	136	151	150	146	210	205	239	260
A. P. PAPER										
Sales	13230.41	14801.55	15786.53	17146.72	17012.35	20140.62	24804.41	23211.90	24007.55	25770.29
Indices	100	112	119	130	129	152	187	175	181	195
Trade Debtors	1136.92	1257.62	1536.05	1597.83	1617.23	1639.51	1427.96	1322.90	2165.97	2308.79
Indices	100	111	135	141	142	144	126	116	191	203
BHADRACHALAM										
Sales	12352.66	13676.62	15345.11	17800.58	18918.31	22148.16	25443.01	23620.89	21024.32	30974.09
Indices	100	111	124	144	153	179	206	191	170	251
Trade Debtors	856.82	906.92	1211.89	1807.04	1480.90	1994.70	3845.25	3142.64	2802.60	4051.98
Indices	100	106	141	211	173	233	449	367	327	473
SIRPUR										
Sales	8062.87	8412.60	9428.66	9719.13	11591.05	14240.72	16319.05	15959.37	15839.89	14574.87
Indices	100	104	117	121	144	177	202	198	196	181
Trade Debtors	1560.85	1425.49	1196.90	1835.09	2154.75	1403.64	1816.11	2199.75	2690.56	2295.36
Indices	100	91	128	118	138	90	116	141	172	147
COASTAL										
Sales	1641.42	1775.10	2098.08	2250.40	2847.72	3124.66	3848.88	3395.98	2856.55	3069.14
Iudices	100	108	128	137	173	190	234	207	174	187
Trade Debtors	212.68	254.13	395.18	446.68	443.14	491.23	721.78	857.70	926.70	986.58
Indices	100	119	186	210	208	231	339	403	436	464
DELTA										
Sales	2121.50	2489.65	3049.02	3518.27	4212.25	4380.79	4021.81	4156.52	4240.99	3782.79
Indices	100	117	144	166	199	206	190	196	205	178
Trade Debtors	236.71	385.16	330.91	350.45	301.76	286.86	612.47	630.19	852.00	636.88
Indices	100	163	140	148	127	121	259	266	360	269
VAMSHADHARA										
Sales	684.05	707.15	748.74	863.46	961.31	1290.41	1557.59	1643.86	1673.69	1587.95
Indices	100	103	109	126	141	189	228	240	245	232
Trade Debtors	120.76	147.57	154.41	210.07	175.84	225.45	237.56	311.64	423.03	449.46
Indices	100	122	128	174	146	187	197	258	350	372

data have been collected and analysed from their annual reports.

Credit Policy and its Impact on Sales

The analysis of the trends in sales and trade debtors shows the effectiveness of the credit policy in activating sales. An uninterrupted upward trend in sales accompanied by downward trend in debtors indicates that the credit policy implemented by the company is very effective in stimulating more sales. Further, if the pace of increase in sales is more than the pace of increase in debtors, it is also a symptom of fairly favourable credit policy. Table - 1 reveals the indices of sales and debtors for sample mills. The indices of sales and debtors in the combined position had recorded an upward trend till the year 1996 and then declined in indices of sales and increased in debtors' indices. But the pace of increase in debtors' indices outstripped the pace of increase in sales, which implies unfavourable impact of credit policy on sales. It is obvious that sales and debtors have registered an upward trend in all sample mills (with an exception of Delta and Sirpur). In A. P. Paper, Bhadrachalam, Coastal and Vamshadhara, the pace of sales had outstripped the debtors. Therefore, credit policy in these mills had favourable impact on sales.

Size of Trade Debtors

The analysis of quantum of trade debtors shows the type of credit policy — either liberal or stringent followed by the firm. Table - 2 shows the size of trade debtors in absolute values and also as percentage of current assets. The quantum of trade debtors in sample paper industry reveals an overall rise from Rs. 4,124.74 lakhs in the initial year (1990) to Rs. 10,729.05 lakhs by the end of study period (1999). But as percentage of current assets, it had declined from 25.48 per cent in the beginning (1990) to 19.46 per cent by the end of study period (1999). Though debtors in absolute terms tended to rise, but as a percentage of current assets, they declined. The increase in the amount of debtors was due to expanded sales and the decrease in its percentage to current assets was attributable to accelerated collection of debtors in the industry. The rising quantum of trade debtors was an indication of liberal credit policy adopted by the industry to overcome the sluggish market conditions.

An examination of debtors' position in individual mills reveals that its size, on an average, was the minimum in Vamshadhara (Rs. 245.58 lakhs) and the maximum in Bhadrachalam (Rs. 2,210.07 lakhs). But debtors, on an average, as a percentage of current assets was least in Bhadrachalam (12.06 per cent) and the highest in Coastal (48.60 per

Table -2

Size of trade debtors in sample paper mills

(Rs. In lakhs)

Name of the Mill	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Average
Consolidated	4124.74 (25.48)	4376.89 (20.17)	5625.34 (21.71)	6248.16 (23.20)	6173.62 (16.45)	6041.39 (13.03)	8661.13 (16.08)	8464.82 (17.10)	9860.46 (17.60	10729.05 (19.46)	7030.56 (19.03)
A. P. Paper	1136.92 (19.60)	1257.62 (17.50)	1536.05 (18.72)	1597.83 (20.10)	1617.23 (19.44)	1639.51 (14.62)	1427.96 (12.09)	1322.90 (10.37)	2165.97 (16.20)	2308.79 (18.24)	1601.08 (16.69)
Bhadrachalam	856.82 (17.82)	906.92 (10.42)	1211.89 (11.70)	1807.04 (17.11)	1480.90 (7.35)	1994.70 (7.17)	3845.25 (12.60)	3142.64 (13.17)	2802.60 (9.80)	4051.98 (13.50)	2210.07 (12.06)
Sirpur	1560.85 (38.63)	1425.49 (35.40)	1996.90 (37.21)	1835.09 (30.35)	2154.75 (31.77)	1403.64 (29.14)	1816.11 (23.21)	2199.75 (26.26)	2690.56 (31.37)	2295.36 (30.17)	1937.85 (31.35)
Coastal	212.68 (40.53)	254.13 (43.98)	395.18 (50.12)	446.68 (52.69)	443.14 (53.89)	491.23 (55.01)	721.78 (52.06)	857.70 (51.43)	926.30 (35.64)	986.58 (50.66)	573.54 (48.60)
Delta	236.71 (29.90)	385.16 (41.24)	330.91 (35.80)	350.45 (30.10)	301.76 (27.33)	286.86 (24.20)	612.47 (33.60)	630.19 (27.90)	852.00 (40.47)	636.88 (29.92)	462.34 (32.05)
Vamshadhara	120.76 (53.31)	147.57 (54.77)	154.41 (57.80)	210.07 (57.37)	175.84 (53.42)	225.45 (48.95)	237.56 (48.82)	311.64 (52.21)	423.03 (56.22)	449.46 (56.63)	245.58 (53.95)

Note : Figures in parentheses represent debtors as a percentage of current assets.

cent). The debtors as a percentage of current assets had increased in three mills namely Coastal, Delta and Vamshadhara whilst it had declined marginally in rest of the mills under study. But Delta was suffering from shortage of working capital funds and therefore, it was not in a position to offer credit liberally to its customers. Almost all the mills have maintained the size of debtors in relation to current assets.

Debtors' Turnover Rate and Average Collection Period

Debtors' turnover rate indicates how quickly receivables or debtors are converted into cash. Ramamurthy observes that collection of debts is the concluding stage in the process of sales transactions.[4] The liquidity of debtors, therefore, is measured through the debtors' turnover rate. The turnover rate converted into average collection period is a significant measure of the collection activity of debtors'.[5] A average collection period is a measure of how long it takes from the time the sales is made to the time the cash is collected from the customers.[6] The debtors' turnover rate and average collection period can be computed as follows:

(i) Total net sales (S)

(ii) Average debtors (D) i.e.,

$$\frac{\text{Opening debtors} + \text{Closing debtors}}{2} = (D)$$

(iii) Turnover of debtors (S/D); and

(iv) Average collections period [365 / (S /D)]

A higher debtors turnover coupled with quick average collection of debtors enables the firm to transact a larger volume of business without corresponding rise in the investment in debtors. Lower turnover and larger average collection period is an indication of liberal credit policy of a firm and thereby, implying ineffective credit management. On the other hand, higher the turnover, more effective and rewarding the investment made in debtors.

Debtors' turnover ratio and their average collection period in sample mills are embodied in Table - 3. In the combined position of sample mills, turnover and the average collection period recorded at 9.06 times and 41 days respectively. The debtors' collection period tended to rise from 37 days in the initial year (1991) to 47 days by the end of the study period (1999), consequent to the declining turnover rate from 9.85 times in 1991 to 7.55 times in 1999. The collection from debtors in paper industry continued to be slower.

The position was different in individual mills. The average collection period in the sample mills was not uniform. It exceeded industry's average of 41 days in Coastal (73 days), Vamshadhara (72 days), Sirpur (57 days) and Delta (45 days) due to decrease in debtors' turnover. These mills, in order to overcome the unfavourable market conditions, offered their finished goods on more liberal credit terms. In A. P. Paper and Bhadrachalam—the average collection period had recorded 29 days and 37 days respectively, which was less than the industry's average collection period due to increase in debtors' turnover ratio. Collection period in these mills' slowly came down. They were not able to sell their finished goods on liberal credit terms, as they required immediate cash.

It can be further observed that, on an overall position and individual position of sample mills, (with the exception of Sirpur) the average collection period increased from initial year (1991) to the end of study period (1999) due to decrease in turnover of debtors. But Sirpur had reported declining average collection period and increase in turnover because of non-liberal credit policy. The collection efforts of sample mills may further be confirmed through aging analysis of debtors.

Aging Analysis of Debtors

The aging schedule is a useful management control device to review the condition of trade debts. The aging schedule depicts varying degree of delinquency in three or more classifications on a time scale. A simplified approach may be to group book debts into two broad categories normal and overdue accounts. For instance, the overdue debts can be those that are outstanding for more than six months, Debtors in sample mills are debtors classified into two broad categories: (i) normal debtors and (ii) debtors outstanding for more than six months. These outstanding debtors over six months can be expressed as percentage of total debtors and the trends may be observed. If the amounts of overdue debts keep increasing in relation to total debts, it will reflect slack collection period and ineffective follow-up efforts.

The debts outstanding over six months period in sample mills are displayed in Table - 4. The quantum of debtors uncollected for a period of more than six months increased in terms of absolute values from Rs. 602.54 lakhs in 1990 to Rs. 919.90 lakhs in 1999. But overdue as percentage of trade debtors in spite of variations recorded an overall decline from 14.61 per cent in 1990 to 8.57 per cent in 1999 over the study period. The collection and follow-up efforts of paper industry were satisfactory.

An observation of overdues in individual paper mills manifests that the average percentage share of overdues due by six months to total debtors ranged between the lowest of 1.92 per cent in A. P. Paper and the highest of 14.96 per cent in Delta. It may be deduced that the collection procedures and follow-up efforts were effective in A. P. Paper and ineffective in Delta, though the percentage share tended to decline over the study period. On an average, debtors due over six months in absolute values were

Table-3

Turnover and Collection Period of Trade Debtors in Sample paper mills

Particulars	1991	1992	1993	1994	1995	1996	1997	1998	1999	Average
Consolidated										
Turnover (inTimes)	9.85	9.29	8.64	8.94	10.7	10.34	8.41	7.61	7.75	9.06
Collection Period (in days)	37	39	42	41	34	35	43	48	47	41
A. P. Paper										
Turnover (in Times)	12.36	11.3	10.94	10.58	12.37	16.17	16.88	13.76	11.52	12.88
Collection Period (in days)	30	32	33	34	30	23	22	27	32	29
Bhadrachalam										
Turnover (in Times)	15.51	14.48	11.79	11.51	12.74	8.71	6.76	7.07	9.04	10.85
Collection Period (in days)	24	25	31	32	29	42	54	52	43	37
Sirpur										
Turnover (in Times)	5.63	5.51	5.07	5.81	8.00	10.14	7.95	6.48	5.85	6.72
Col1ection Period (in days)	65	66	72	63	46	36	46	56	62	57
Coastal										
Turnover (in Times)	7.61	6.46	5.35	6.40	6.69	6.35	4.30	3.20	3.21	5.51
Collection Period (in days)	48	57	68	57	55	57	85	114	114	13
Delta										
Turnover (in Times)	8.01	8.52	10.33	12.92	14.88	8.94	6.69	5.86	5.08	9.03
Collection Period (in days)	46	43	35	28	25	41	55	62	72	45
Vamshadhara										
Turnovcr (in Times)	5.27	4.96	4.74	4.98	6.43	6.73	5.99	4.56	3.64	5.25
Collection Period (in days)	69	74	77	73	57	54	61	80	100	72

reported least in Varnshadhara (Rs. 23.0 lakhs) and the highest in Sirpur (Rs. 166.72 lakhs). Debtors due over six months both in terms of percentage and absolute values had depicted an overall rise in Bhadrachalam and Coastal. Sirpur had initiated better collection policy and effective follow-up procedure, since overdues had declined both in terms of percentages and absolute values. Overdues as a percentage of total debtors tended to rise in Vamsha-dhara. It is obvious that the collection and follow-up efforts of the Bhadrachalam and Vamshadhara were moderately good, but Coastal's efforts in collecting overdues were not satisfactory.

Conclusion

The forgoing analysis reveals that the sample mills adopted liberal credit policy, which had a favourable effect on sales with the exception of Sirpur. The size of trade debtors as a percentage of current assets had shown declining trend. But the collection period of debtors slowly increased in all the mills except in Sirpur. The increasing debtors' collection period was an indication of slackness in collection efforts of the mills. To reduce the collection period, the collection and follow up efforts of trade debtors shall be rationalised and the slackness should altogether be removed. The aging analysis of trade debtors in percentage terms and absolute values has depicted an overall rising trend in paper industry. Aging schedule of overdues shall be prepared not only for six months period but also

Table - 4

Quantum of Debtors Outstanding Over Six Months in Sample Paper Mills

(Rs. in lakhs)

Name of the Mill	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Average
Consolidated	602.54 (14.61)	154.11 (3.52)	259.25 (4.61)	392.70 (6.29)	464.13 (7.52)	358.16 (5.93)	344.39 (3.98)	436.47 (5.16)	600.73 (6.09)	919.90 (8.57)	453 (6.63)
A .P. Paper	26.57 (2.34)	13.28 (1.06)	13.32 (0.90)	— —	19.42 (1.20)	18.12 (1.11)	12.76 (0.89)	16.84 (1.27)	82.55 (3.81)	149.39 (6.47)	35.23 (1.92)
Bhadrachalam	68.76 (8.03)	50.96 (5.62)	17.35 (1.43)	32.06 (1.77)	77.21 (5.21)	91.52 (4.59)	140.24 (3.65)	165.93 (5.28)	194.36 (6.94)	407.20 (10.05)	124.56 (5.26)
Sirpur	440.29 (28.21)	27.92 (1.96)	133.93 (6.71)	246.61 (13.44)	263.16 (12.21)	141.30 (10.07)	88.95 (4.90)	129.24 (5.88)	108.55 (4.03)	87.26 (3.80)	166.72 (9.12)
Coastal	18.20 (8.56)	6.83 (2.69)	20.31 (5.14)	32.67 (7.31)	21.29 (4.80)	9.97 (2.03)	20.13 (2.79)	48.87 (5.70)	111.79 (12.07)	149.71 (15.18)	43.98 (6.63)
Delta	36.93 (15.60)	41.46 (0.76)	61.94 (12.72)	61.22 (17.47)	65.82 (21.81)	80.69 (2&.13)	61.49 (10.04)	57.44 (9.12)	64.06 (7.52)	66.48 (10.44)	59.75 (1496)
Vamshadhara	11.79 (9.76)	13.66 (9.26)	12.40 (8.03)	20.14 (9.59)	17.23 (9.80)	16.56 (7.35)	20.82 (8.76)	18.15 (5.82)	39.42 (9.32)	59.86 (13.32)	23.00 (9.10)

Note: Figures in parentheses represent debtors due over six months as a percentage of total debtors.

for different time periods, say three months, nine months and twelve months. It enables the mills to take up timely and appropriate measures in collecting dues from the default customers.

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