Receivables Management: Composition, Circulation and Growth

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Introduction

In the present day industrialized economy credit stands out as a prominent and an all pervasive force. It becomes highly difficult for a manufacturer to pay cash across the counter, whatever is this liquidity in meeting the debts. Some view the trade credit as a type of business finance necessary for greasing the wheels of the production process. It would not be an exaggeration to say that trade credit is as important as cash in business enterprise. The main purpose of maintaining receivables is to push up sales and ultimately profits by allowing certain credit to the potential customers who otherwise may find it difficult to make cash purchases. Moreover, receivables being a near cash item improve the liquidity position of an enterprise. Every commitment of financial resources in a firm is expected to contribute to the goal of maximizing the present value of the firm in the market place. The commitment of funds to account receivables is no exception.

Management of receivables can be said to be one of the relatively neglected area in corporate management in India. Terms and standards of credit are governed more or less by some conventions and judgments that fail to take into account the variations in credit worthiness between different clients. The purpose seems to be equality of treatment, in the just instance, and thereafter, a passive attitude in the matter of follow–up collection of receivables. The two distinct elements of receivables namely, the time element and the amount element are recognized by very few. The risk involved in allowing undue delay in the collection of receivables in rarely assessed. Only knowledge of the credit principles and sound credit practices can help avoid the business or ills of excessive or inadequate receivables.

Receivables occupy the second place, in order of investment, among the various components of working capital in manufacturing concerns. The purpose of studying receivables in this chapter is to evaluate their efficiency in the use of working capital. For this purpose, principles of credit administration; evaluation and efficiency of receivables management by looking into the actual credit and collection policies, receivables turnover and average collection period and suggesting the way for better management or receivables by SSIs have been examined.

Objective of the Study

The study is an attempt has been made to evaluate the performance of the management of receivables in the industries under study.It deals with the size, composition, circulation and growth of receivables in the selected units. Also, the practices and procedures regarding credit and collection policy in the selected units have been examined.

Methodology

Our study basically relates to the management of working capital in small scale units in Haryana. As the period of our study was ten years i.e., from 1999-00 to 2008-09, it was essential for us to choose only those industrial units which existed before 1999-00, so the cut off date which we chose was 31st December, 2000. The total numbers of industrial units existing in the state of Haryana as on that dates were 72385 of which the joint stock companies were 1170. Since creation of Haryana state where all types of the industries of various sizes big, medium and small have concentrated over the past several years.The selection of SSI units on the basis of production.Selected ten top districts of Haryana and six SSI units according to their production basis.

The secondary data regarding the number, size, class, age etc. of the companies working in the state were obtained from the Small Scale Industries Directory (2008-09), DIC, Chandigarh. The second category of information was collected from the annual published financial statements of joint stock companies. None of the selected companies supplied its financial statements though request was made. Therefore, the financial statements were collected from the official copy deposited with the Registrar of Companies, Haryana and New Delhi as per the requirements of the Indian Companies Act, 1956.

Various accounting and statistical techniques have been used for analyzing the data. Accounting techniques include ratio analysis, while among statistical techniques the arithmetic mean, co-efficient of variation, test of significance, ('t' test) trend indices, and simple growth rates, co-efficient of correlation (r), 't' test of correlation, co-efficient of determination (r^2), linear regression equations and variance analysis have been applied. The use of all these techniques at different places has been made in the light of nature and suitability of data available and requirements of analysis.

Composition of Receivables

After considering the size of receivables it is now proposed to examine the relative importance of the various components of receivables. The study of composition of accounts receivables helps in revealing points where these are concentrated most. The composition of one industry can also be compared with the composition of receivables in other industries and with the selected norms. It is very vital al tool for evaluating the management of receivables. It is pointer to the fact that receivables in selected groups of industries include sundry debtors and loans and advances.

Ratio of Debts to Receivables

Table 1 reveals the ratio of debts to total receivables for the six groups of industries as well as their combined position for the period under study. The statistical values i.e., the mean $(\overline{X})$, co-efficient of variation (C.V.) and average trend relating to ratio have also been presented in this table for further analysis.

Table: 1

Ratio of Debts to Receivables

(In Percentage Term)

Year	Chemical & chemical products	Repair & services	Leather & leather products	Wooden products	Food products	Textile &texitle products	Aggr.
1999-00	82.91	88.31	89.37	69.27	88.48	74.07	82.10
2000-01	84.36	86.83	91.71	66.77	76.81	70.94	79.57
2001-02	85.08	86.18	89.97	80.44	81.58	59.91	80.52
2002-03	90.62	80.41	91.98	56.77	80.65	69.34	78.30
2003-04	88.11	85.22	93.33	58.355	61.18	73.33	76.62
2004-05	82.23	85.66	88.10	60.13	72.50	76.85	77.58
2005-06	84.71	81.55	89.20	66.31	38.22	76.66	72.78
2006-07	83.00	79.16	89.57	63.59	52.97	83.49	75.30
2007-08	91.82	84.05	91.47	60.19	56.31	85.40	78.21
2008-09	91.33	83.16	91.69	58.29	59.55	89.30	78.89
$\overline{X}$	86.42	84.07	90.64	64.03	66.83	75.93	77.99
C.V.	0.04	0.04	0.02	0.11	0.23	0.13	0.03
Average Trend	104.23	94.98	101.42	92.44	75.53	102.51	

Source: Computed from annual reports of the respective units.

In Chemical & chemical products group, the ratio varies form 82.83 percent in 2004-05 to 91.82 percent in 2007-08. The overall mean value of the ratio is 86.42 percent with C.V. 0.04. The average trend value, i.e., 104.23 indicates that there is only a marginal increase in the ratio. It appears that debts constitute a high proportion of receivables for this group of industry.

In Repair & services group of industry, the ratio ranges from 79.16 percent in 2006-07 to 88.51 percent in 1999-00. The mean value of the ratio is 84.07 percent with C.V. 0.04. The average trend value being 94.98 shows that the ratio has slightly declined over the years of

study. Still, the ratio is higher in comparison to the declined over the years of study. Still, the ratio is higher in comparison to the aggregate. So the industry should try to bring it down to the extent possible.

In Leather & leather products group of industry, the ratio varies from 88.10 percent in 2004-05 to 93.33 percent in 2003-04. The overall mean value of the ratio is 90.64 percent with C.V. 0.02 which confirms the stability in the ratio. The average trend value of the ratio is 101.42. The mean value is higher position in total receivables. Thus, it is essential for the industry to cut it down to a reasonable limit.

In Wooden products group, the ratio is showing some–what a flexible trend. The range of variation is from 56.77 percent in 2002–03 to 80.44 percent in 2001–02. The C.V. value being 0.11 confirms the modest variation in the ratio. The mean value of the ratio is 64.03 percent which is relatively lower than that of the aggregate. The average trend value being 92.44 witnesses the fact that the ratio has slightly fallen. Still, the ratio seems to be high. It is better if the industry keeps it within a reasonable limit.

In Food products group of industry, the ratio varies from 38.22 percent in 2005–06 to 88.48 percent in 1999–00. The variation in the ratio is proved by the presence of C.V. value being 0.23. The overall mean value of the ratio is 66.83 percent which seems to be lower in comparison to the aggregate. The average trend value being 75.53 proves the fact that proportion of debtors in total receivables has come down. Nevertheless, the ratio in absolute term is quite enormous. It is better for the industry to cut it down to a sizable limit.

In Textile &texitle products group of industry, the ratio varies from 59.91 percent in 2001–02 to 89.30 percent in 2008–09. The overall mean value of the ratio is 75.93 percent, which is almost equal to that of the aggregate. The C.V value being 0.13 shows that the variation in the ratio does not seem very high. The average trend value being 102.51 shows that there has been marginal increase in the ratio. In this group too, the debts consume large proportion of total receivables. It is essential for the industry to bring them down to a good extent.

Ratio of Loans and Advances to Receivables

Table 2 highlights the ratio of loans and advances to receivables for the six groups of industries along with their aggregate position for ten years period of study. The statistical values, i.e., the mean $\left(\overline{X}\right)$, co–efficient of variation (C.V.) and average trend, relating to the ratio have also been given in this table for further analysis.

Table: 2

Ratio of Loans and Advances to receivables

(In Percentage Term)

Year	Chemical & chemical products	Repair & services	Leather & leather products	Wooden products	Food products	Textile &texitle products	Aggre.
1999–00	17.09	11.40	10.63	30.73	11.52	25.93	17.90
2000–01	15.64	13.17	8.29	33.23	23.19	29.06	20.43
2001–02	14.92	13.82	10.06	19.56	18.42	40.09	19.48
2002–03	9.38	19.59	8.02	43.23	19.35	30.66	21.71
2003–04	11.89	14.78	6.67	41.45	38.82	26.67	23.38
2004–05	17.77	14.34	11.90	39.87	27.50	23.15	22.42
2005–06	15.29	18.45	10.80	33.69	61.78	23.34	27.23
2006–07	17.00	20.84	10.43	36.41	47.03	16.51	24.70
2007–08	8.18	15.95	8.53	39.81	43.69	14.60	21.79
2008–09	8.67	16.84	8.31	41.71	40.45	10.70	21.11
$\overline{X}$	12.58	15.93	9.36	35.97	33.17	24.07	22.02
C.V.	0.27	0.19	0.17	0.20	0.47	0.36	0.12
Average Trend	79.46	138.64	88.05	117.05	287.93	92.83	

Source :   Computed from annual reports of the respective units.

In Chemical & chemical products group, the range of the ratio is from 8.18 percent in 2007–08 to 17.77 percent in 2004–05. The overall mean value of the ratio is 13.58 percent with C.V. 0.27. In fact, the ratio happens to be lower in comparison to the aggregate position and also the variability is modest. The average trend i.e., 79.46 shows a decrease in the ratio. Also the ratio is showing a declining trend from the year 2007–08 onwards. The industry's performance seems to be satisfactory on this account.

In Repair & services group, the ratio varies from 11.49 percent in 1999–00 to 20.84 percent in 2006–07. The mean value of the ratio is 15.93 percent with C.V. 0.19. This shows

that the variation in the ratio is not very much alarming. The average trend value of the ratio is 138.64. It shows that the ratio has come up during the period under study. However, the mean value is lower in comparison to the aggregate. In fact, the ratio at present seems to be some–what satisfactory. It is better if the industry can maintain it in future as well.

In Leather & leather products group of industry, the proportion of loans and advances in total receivables oscillates between 6.67 percent in 2003–04 to 11.90 percent in 2004–05. The overall mean value of the ratio is 9.36 percent which is considerably lower in comparison to the aggregate level, i.e., 22.02 percent. It appears that loans and advances constitute only nominal proportion of total receivables. The C.V. value being 0.17 indicates modest variation in the ratio. The average trend value of the ratio being 88.05 confirms that the ratio has declined. The ratio at present seems to be satisfactory. The industry can keep it in future as well.

In Wooden products group, the ratio ranges from 19.56 percent in 2001–02 to 43.23 percent in 2002–03. There was a sudden jump in the ratio in the year 2002–03 when it rose to 43.23 percent form 19.56 percent in previous year. But this rise was exceptional. The overall mean value of the ratio is 35.97 percent with C.V. 0.20. The mean value is higher than that of the aggregate and the variation in the ratio seems to be modest. The average trend value of the ratio being 117.05 proves that the ratio has increased during the period under review. The industry should try to bring it down substantially so that a large proportion of receivables may not remain locked up in loans and advances.

In Food products group of industry, the ratio makes considerable ups and downs during the period under study; the lowest value being 11.52 percent in 1999–00 and the highest being 61.78 percent in 2005–06. The considerable variation in the ratio is witnessed by the presence of C.V. value being 0.47. The mean value is 33.17 percent and average trend value being 287.93. This shows that the ratio has been substantially increased during the period under study. It appears that the loans and advances consume a large proportion of receivables. There is a need to bring it down to the extent possible.

In Textile &texitle products group, the ratio varies from 10.70 percent in 2008–09 to 40.09 percent in 2001–02. The overall mean value of the ratio is 24.07 percent with C.V. 0.36. The average trend value being 92.83 shows fall in the ratio. In fact, the ratio has been declining in later years of study. It is good if the industry can continue with this trend in future also. Also there is need to check fluctuations in the ratio.

Correlation and Regression Analysis

With a view to study more precisely the behaviour of receivables in relation to sales in the selected groups under study, the co–efficient of correlation, (r) their 't' values (to test the significance of correlation), co–efficient of determination (r^2) and linear regression equations have been computed in the table 3.

Table: 3

Showing Co–efficient of Correlation between Receivables and Sales alongwiththeir't' values, Co–efficient of Determination and Regression Equation

Group	Linear Regression Equation X on Y	r	r^2	't' value
Chemical & chemical products	X=6.06 + 0.22y	0.91	0.83	6.1824**
Repair & services	X=88.07 + 0.08y	0.24	0.06	0.7098
Leather & leather products	X=5.89 + 0.23y	0.85	0.72	4.6502**
Wooden products	X=15.25 + 0.09y	0.14	0.02	0.3952
Food products	X= − 5.34 + 0.52y	0.98	0.96	12.8907**
Textile &texitleproducts	X=4.66 + 0.30y	0.99	0.98	16.9073**
Aggregate	X= − 0.13 + 0.30y	0.72	0.59	3.4052**

Source :   Computed from annual reports of the respective units.

Note   :   **Significant at 1 percent level

                      Here X = Receivables   Y = Sales

        Table 3 shows that the receivables and sales are highly correlated and statistically significant (99 percent level of confidence). There is also positive correlation in receivables and sales in Repair & services and Wooden products groups of industries but it is statistically insignificant. The same fact is proved by the value of co–efficient of determination. It shows that the value of r^2 is relatively high in Chemical & chemical products, Leather & leather products, Food products and Textile &texitleproducts groups of industries. It means that much of change in receivables is caused by the change in volume of sales in these groups of industries. On the other hand, in case of Repair & services and wooden products group, this value is very low. This shows that only a small change is brought about in receivables by the change in the volume of sales in these groups of industries.

        The linear regression equations given in the table may be used for projecting future needs of funds for receivables for a given volume of sales. The high value of parameter 'b' brings out the fact that receivables are more sensitive to change in sales in Food products group of industry. On the contrary, sensitivity for change in receivables as a result of unit change in sales in very low in Repair & services and wooden products group of industries due

to low value of parameter 'b'. It reflects that these groups are in a position to have better control over receivables in relation to sales. The value of parameter 'a' happens to be the lowest in Leather & leather products group which points out that this group can adjust the size of its receivables according to sales.

Variance Analysis

Table 4 exhibits two way classification of variance analysis, viz, rows pertaining years and columns pertaining group of industries in regard to the ratio of receivables and sales. It appears from the table that the calculated value of 'F' being 1.61 pertaining years (rows) is lower than the table value at 95 percent level of confidence. It reflects that the performance over ten year's period is alike so far as this ratio is concerned. Also, the computed value of 'F' being 1.83 pertaining group of industries (columns) is lower than the table value at 95 percent level of confidence. This shows that the performance of different groups of industries does not vary so far as this ratio is concerned.

Table: 4

Two Way Classification of Variance Analysis: Receivables Turnover Ratio

Source of Variation Between	Sum of Squares	Degree of Freedom	Mean Sum of Squares	Variance
Rows (time–wise)	21.30	9	2.36	$F = \dfrac{2.36}{1.47} = 1.61$
Columns (group–wise)	13.43	5	2.69	$F = \dfrac{2.69}{1.47}$
Residual	66.15	5	2.69	
Total	100.88	45	1.47	

Source :   Computed from annual reports of the respective units.

Credit and Collection Policies/Practices Applied in Selected Units

It has been found in the course of the study that credit and collection policies are being chalked out and finally decided by the top executive i.e., M.D. on the advice of the finance executive in most of the selected group of industries.

It has been found that the most popular techniques employed are bank references and trade references. For judging the credit worthiness of existing customers, past experiences serve as on e of the significant decision variables; no single method by itself is considered satisfactory. For example, reference to a bank may not always give a true picture of the credit worthiness of a customer since many firms maintain very good records within their banks while they always delay payment to the creditors. Moreover, a buyer's bank may not supply any information without the consent of client. In the case of an unfavourable report such

permission may not be granted. Thus, firms generally employ more than one technique simultaneously for this purpose.

In one of the studies Ramamoorthy also holds the view that in our country, the barriers of secrecy remains insurmountable. What can be brought out from financial institutions by way of credit information are quite innocuous and general, such as "we feel the customer will honour his obligation resembling ironic good conduct certificates that are dated out in standard forms.

Credit period directly influences the volume and quality of accounts receivables. Longer credit period may boost sales but it also increases investment in receivables and lower the quality of trade credit. A wide variation exists in the credit period extended by firms in different industrial groups. Even in the same industry firms grant credit for different period. During the course of investigation it has been observed that the period of credit varies from 30 days to 90 days. In Repair & services group a few firms do not allow credit beyond 30 days. However, in most of the firms in remaining groups credit of more than 30 days is generally allowed.

A creditor grants cash discount to induce a debtor to make payment before the expiry period. In fact, it is a premium or payment of debts before the date and not a compensation for the so called prompt payment. Firms in general avoid the use of technique of cash discount due to the difficulties in its administration. However, cash discount is allowed by a few firms in Chemical & chemical products and Leather & leather products group at a normal rate of 3 percent and 2 to 5 percent respectively.

It has been found in our study that only a few firms followed the strict collection policy. Such firms usually send two to three reminders and also contact them personally to persuade them to settle their over-dues. Then, they seek the help of collection agency and at last the case is handed over to solicitor after a period of six months of al these initial steps.

In fact, the small scale units need thorough inception of their credit policy as it is causing them considerable delay in the realization of their debts with consequential results of low liquidity and low profitability.

Conclusion:

The trend values of receivables show that the receivables have risen consistently over the period of study in all the six groups of industries, similarly the trend values of sales show that sales have raised consistently over the period of study in all the six groups of industries except Repair & services group. This apparently shows that there should be some sort of positive correlation between receivables and sales.

While considering progressive growth rate in receivables and sales in appears that the receivables are growing a rate faster than sales in all the six groups of industries in most of the years of study. Receivables ought to increase with the increase in sales but rise in them at a rate faster than sales shows that the receivables should not have been utilize proper. This fact is further confirmed by their average collection period.

From the correlation analysis it appears that there is a positive and significant correlation between receivables and sales in Chemical & chemical products, Leather &

leather products, Food products and Textile &texitle products groups of industries and also at the aggregate level; the correlation positive in Repair & services and Wooden products groups also, but is is statistically insignificant

The value of co-efficient of determination is very high in Chemical & chemical products (0.91) Leather & leather products (0.85) Food products (0.98 and Textile &texitle products (0.99) groups of industries which show that much of change in receivables is caused by this change in the volume of sales in these groups of industries, On the whole the value of co-efficient of receivables is caused by the change in volume of sales.

As regards practices and procedures being followed in managing receivables it was found that this function is performed by Managing Director himself in most or the small scale enterprises under study, In order to judge credit worthiness of customers, bank reference and also trade reference are being excessively followed in most of the enterprises of study. A liberal credit and collection policy is rule rather than exception for most of the small scale enterprises.

Reference:

Appanadhanula, A., Working Capital and Choice of Techniques, The Indian Economic Journal, July-September, 1971.

Battacharya, K.K., Working Capital Management in Loss Making Companies, The Management Accountant, Vol. 18, No. 4, April, 1983.

Bierman, Harold Jr, Chopra K., and Thomas J., Ruin Considerations: Optimal Working Capital and Capital Structure, The Journal of Financial and Quantitative Analysis, March, 1975.

Chakravarty, P.K. & Dc, A.K., Working Capital Management: A case study in the Eastern Coal Fields Ltd., Journal of Accounting & Finance Vol. IV No. 1, 1990.

Commissioner SSI Ministry of SSI. (2002). Report on second all India census of SSI Units 2000-2002, Nirman Bhawan,New Delhi.

Directorate of Industries GOH. (2010), Progress Report of SSI for the year 2008-2009.

Gopal, K., Inventory Management, The Management Accountant, Vol. 24, No. 10, October, 1989.

Gupta, N.K., Selective Approach to Inventory Control; A Case Study of a Public Sector Enterprise, LokUdhog, Vol. XIII, No. 3, June 1979 and Vol. XII No. 4, July, 1979.

Kulshreshtha, H.S., Concepts and Components of Working Capital, Journal of Accounting & Finance, Vol. IV No. 1, spring 1990.

JagdishPrakash& Sanjay Srivastav, Management of Working Capital in the U.P. State Repair & services Corporation, Journal of Accounting & Finance, Vol. IV No. 1, Spring 1990.

Mishra, R.K. &Kar, N.C., Management of Working Capital in ECIL, Journal of Accounting & Finance, Vol. IV, No. 1, Spring, 1990.

Stastical abstracts of Haryana published by of published by Directorate of economic and statistics 2002, 2006, 2008 respectively

Srinivason, S., Working Capital Balancing Liquidity & Profitability, Indian Management, Vol. 28, No. 7, July, 1989.