CHAPTER 4

RECEIVABLES MANAGEMENT
4.1 INTRODUCTION:

A typical manufacturing company has receivable to total asset ratio in the region of 20% to 25%. This represents a considerable investment of funds and the management of this asset can have a significant effect on the profit performance of the company.

Receivables balance as shown in the balance sheet of a company relates to sales made on credit for which payment has not yet received. They arise from the sale of goods and services on credit basis. A sale on credit depends upon the nature of business. To increase the sales volume, generally the credit facility will be offered to the customers which result in investment in receivables maximizes return on capital employed. The balance in receivables account is determined by the number of customers, length of credit, amount of credit allowed to each customer etc.

To achieve growth in sales and to meet competition in the industry, a firm may resort to credit sales. A retail trader will do his business mainly on cash basis whereas a manufacturing concern will have heavy balance in receivables. Firms offer credit to customers to attract more business, and the increased turnover will result in increased profit to the firm. The market in which the firm is doing business is the ultimate determinant in credit sales and receivables balances.¹

Trade credit arises when a firm sells its products or services on credit and does not receive cash immediately. It is an essential marketing tool, acting as a bridge for the movement of goods through production and distribution stages to customers. A firm grants trade credit to protect its sales from the competitors and to attract the potential customers to buy its products at favorable terms trade credit
creates receivable or book debts which the firm is expected to collect in the near future.

4.1.1 **The book debts or receivable arising out of credit has three characteristics.**

First, it involves an element of risk which should be carefully analyzed. Cash sales are totally risk less, but not the credit sales as the cash payment is yet to be received. Second, it is based on economic value. To the buyer, the economic value in goods or services passes immediately at the time of sale, while the seller expects an equivalent value to be received later on third, implies futurity. The cash payment for goods or services received by the buyer will be made by him in future period. The customers from whom receivable or book debts have to be collected in the future is called trade debtors or simply as debtors and represent the firms claim or asset. Receivable constitutes a substantial portion of current assets of several firms. For example in India, trade debtors, after inventories, are the major components of current assets they form about 1/3rd current assets in India. Granting credit and creating debtors amount to the blocking of the firms funds. The interval between the date of sale and the date of payment has to be financed out of working capital. This necessitates the firm to get funds from banks or other sources. Thus, trade debtors represent investment. As substantial amounts are tied-up intrude debtors, it needs careful analysis and proper management.

4.1.2 **Credit-policy-nature and goals:**

A firm's investment in accounts receivable depends on (a)- the volume of credit sales, and (b) the collection period. There is one way in which the financial mgr. can affect the volume of credit sales and collection period and consequently investment in accounts receivables. That is through the changes in credit policy the term
credit policy is used to refer to the combination of three decision variables: (i) credit standards (ii) Credit terms, and (iii) Collection efforts, on which the financial manager has influence.

- **Credit standards** are criteria to decide the types of customers to whom goods could be sold on credit. If a firm has more slow-paying customers, its investment in accounts receivable will increase. The firm will also be exposed to higher risk of default.

- **Credit terms** specify duration of credit and terms of payment by customers investment in accounts receivable will be high if customers are allowed extended time period for making payment.

- **Collection efforts** determine the actual collection period. The lower the collection period, the lower the investment in accounts receivables and vice-versa.²

### 4.1.3 Cost of Extending Credit:

The costs involved in extension of credit to the customers are as follows-

- **Carrying Cost**- This cost includes the interest on capital blocked in the receivables balances, the administration costs associated with the credit decision making and controlling of debtors balances, cost of keeping the records of credit sales and payments, cost of collection of payments from customers, opportunity cost of capital than can be employed else ware than in receivables balances.

- **Default Risk**- There are also costs associated with the risk of default a certain portion of receivables will never pay and will become ‘bad debts’ which has to be written off of the profits of the firm.
• **Administration costs of Receivables Management**- The costs relating to the administration of receivables is as follows:
  - Screening the potential customers for granting credit.
  - Accounting, recording and processing costs of debtor’s balances.
  - Expenditure incurred for credit control checks.
  - Costs incurred for sending invoices and statement of accounts to individual customers.
  - Chasing up slow paying debtors.
  - Costs incurred for classification of quarries.
  - Recording receipt for cash and processing on individual customer records.
  - Use of office space, processing equipment and remuneration of sales force involved in debtors collection etc.¹

4.2 ACCOUNTS RECEIVABLE MANAGEMENT

All firms by their very nature are involved in selling either goods or services although some of these sales will be for cash, a large portion will involve credit. Whenever a sale is made on credit, it increases the firms account receivable. Thus the importance of how a firm manages its account receivable depends on the degree too which the firm sells on credit. Table No - 4.1 lists for selected industries, the percentage of total assets made up by accounts receivable. The more that is sold on credit, the higher the proportion of assets that are tied up in receivables. The more that is sold on credit, the higher the proportion of assets that are tied up in accounts receivables. Certainly for firms in the building construction business, managing accounts receivable is important because they make up over 30% of a typical firms assets.
**TABLE NO.- 4.1**

“Showing accounts receivable as percentage of total assets for major industries.”

<table>
<thead>
<tr>
<th>Industry</th>
<th>Accounts Receivable Relative to Total Assets.</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ Total Construction</td>
<td>30.23</td>
</tr>
<tr>
<td>➢ General merchandising stores-retail.</td>
<td>28.51</td>
</tr>
<tr>
<td>➢ Building materials, garden supplies?</td>
<td>12.13</td>
</tr>
<tr>
<td>➢ mobile home dealers-retail</td>
<td></td>
</tr>
<tr>
<td>➢ Automotive dealers and service</td>
<td>17.53</td>
</tr>
<tr>
<td>➢ Station-retail</td>
<td></td>
</tr>
<tr>
<td>➢ Transportation</td>
<td>11.51</td>
</tr>
<tr>
<td>➢ Apparel and accessory stores-retail</td>
<td>15.07</td>
</tr>
<tr>
<td>➢ Agriculture, forestry and fishing</td>
<td>8.76</td>
</tr>
<tr>
<td>➢ Food stores</td>
<td>8.08</td>
</tr>
<tr>
<td>➢ Hotels and other lodging places</td>
<td>6.79</td>
</tr>
<tr>
<td>➢ All industries</td>
<td>20.77</td>
</tr>
</tbody>
</table>


From this table it can be seen that accounts receivable typically comprise about 20% of firms assets. In effect, we discuss mgt. of 1/5\(^{th}\) of the firms assets. Moreover, because cash flows from a sale cannot be invested until the account is collected, control of receivables takes on added importance, efficient collection determine both profitability and liquidity of the firm.\(^3\)
4.2.1 Process of Receivables Management-

The following process will be helpful in efficient management of the receivables:

- Take the opinion of the sales force and internal staff.
- Frame the credit terms for the customer if credit is sanctioned.
- Establish the initial credit worthiness.
- Check the credit before the dispatch of consignment.
- Close monitoring of the credit terms and customer compliance.
- Review the customer credit if, required.
- Develop the reports for internal appraisal of the customer.

4.2.2 Optimum size of Accounts Receivables:

A firm should strike a balance of accounts receivables. A liberal credit policy increases the sales as well as the profitability of the firm. But simultaneously it should consider the costs involved in liberal credit policy which leads to the increased investment in receivables balances, risk of bad debts, cost of administration of receivables, the problems of liquidity, etc. Hence, a firm should adopt the policy on accounts receivables to minimize the costs and risk, and maximize the firm's profitability and return.¹

4.3 CHARACTERISTICS OF MAINTAINING RECEIVABLES

- Expansion of sales: though it is good policy to effect cash sales to the maximum possible extent. It may not always be possible to do so. Customer may not be toiling to buy goods on cash-down basis; they have, therefore, to be encouraged with the offer of credit terms. In the absence of such on offer, a firm
may not be able to sell goods. Receivable enable it to push sales effectively in the market.

- **Increased profit:** As a result of increase in sales, profits arise. This is ordinarily so because the marginal contribution effected by an increase in sales is greater that the additional costs associated with such increase as also with the administration of the credit policy.

- **Financing receivable:** The use of credit invariability the tie-in of capital. It follows, therefore, that this capital has to be financed by some sources of funds it is usually customary to finance receivables out of (a) Profits retained in business, (b) contributions from stock holders, (c) Debt financing whatever the source of financing, it carries its own cost with the help of which receivables must be financed. Receivables may be financed from existing capital or long term debt, or by using additional capital or long term debt, as the case may be.

- **Administrative Expenses:** The maintenance of receivables calls for the use of an administrative machinery in different-ways. A firm may have to conduct investigations to find out the credit worthiness or otherwise of its customers. Administrative expense, are therefore, incurred on the maintenance of receivables.

- **Cost of collection:** An effective maintenance of receivable depends ultimately upon the effective collection of receivables. A firm may be constrained to apposing several persons or engage collection agencies to remind and even call delinquent customers to make payments. A number of collection letters and remainders usually follow, which eventually increase the cost of collection.
• **Bad debts:** The decision to maintain receivable implies that some amount of bad debts would be incurred because of default on the part of delinquent customer’s inspire of the persistent efforts of a firm to collect its bill, it is bound to meet bad debtors who do not have the ability to pay bills because of their unsatisfactory liquidity or who may be simply unwilling to pay their bad debts. A firm can only hope to nullify its bad debts.

### 4.4 DETERMINATION OF SIZE OF RECEIVABLES

- **Level of Sales:** The most important factor in determining the volume of receivables is the level of terms credit sales with an increase in the size of sales, it may decide to bring about a proportionate increase in the magnitude of receivables.

- **Credit policies:** A firm with a liberal credit policy may keep a higher level of receivables than with a conservative or rigid credit policy. Moreover, customers may not pay their receivables promptly. It should be remembered that week customers may be prompt in payment if they are pressurized to pay falling which they are likely to be converted into defaulters.

- **Terms of trade:** The size of receivables is closely linked with a firm’s trade terms, which include the period of credit the rate of discount etc. The pressure of competition always tends to constrain a firm to offer credit terms which are at least as generous as those offered by competitors the terms of credit thus become almost customary.

- **Profits:** A firm investigates different possibilities and forecasts the effect of each possibility on its future profits. As the level of receivables increases cost of financing them goes up.
However, with an increase in receivables, there is also an increase in sales, which may result in an increase in profit. The relation between cost and benefit in the maintenance of receivable has to be properly traced. If, in the ultimate analysis, it is discovered that the benefit is greater than the cost, the decision would certainly be in favour of maintaining receivables.

- **Market:** It may be necessary for a firm to explore a new market for its products or services. One of the attractive ways in which a firm enters a new market is by inducing customers to buy from it because of the facilities of receivables extended to them. Such an inducement, moreover, accelerates the growth rate of the firm and enables it to undertake the plans of expansion.

- **Grant of Credit:** Size of receivables depends upon the policies and practices of the firm in determining which customers are to be granted credit.

- **Paying Habits of Customers:** These too are capable of influencing a firm's policy with regards to receivables.

- **Collection Policies:** The vigor with which a firm collects its dues from customers affects its policies in regards to receivables for, if the amounts, when they are due, are not collected, a firm suffers some financial difficulties, if not losses.

- **Credit Policy:** Risks of loss and the burden involved in the typing up of funds are considered while determining a credit policy.
• **Operating Efficiency**: The degree of operating efficiency in billing recordkeeping and other functions also exercise some influence on a firm's credit policy.

• **The volume of credit sales**: The tendency to credit expansion is usually related to the volume of credit sales.

• **Credit Collection**: Individual firms set up their own well-organized credit collection departments.\(^4\)

### 4.5 RATIO ANALYSIS FOR CONTROL OF RECEIVABLES

The analysis of receivables can be done with the help of ratios given below for efficient management of debtor balances—credit

- **Average Credit Period (in days)** = \[\text{Debtors} \div \text{Sales} \times 365\]
- **Average credit Period (in weeks)** = \[\frac{\text{Debtors}}{\text{Sales}} \times 52\]
- **Average Credit Period (in months)** = \[\frac{\text{Debtors}}{\text{Sales}} \times 12\]
- **Percentage of Debtors to Current Assets** = \[\frac{\text{Debtors}}{\text{Current Assets}} \times 100\]
- **Percentage of Debtors to Total Assets** = \[\frac{\text{Debtors}}{\text{Total Assets}} \times 100\]

The above formulae can be used to analyze the efficiency in management of debtors and to analyze the trend over a period of time.
4.6 RECEIVABLE MANAGEMENT IN SUGAR INDUSTRY

To analyze receivable management practices in sugar industry the following tools have been used-
(i) Average Credit period (in days) have been calculated as under and this has been presented in table No. 4.2

\[
= \text{Debtors} \times 365 \quad \text{Sales}
\]

**Table No 4.2**

<table>
<thead>
<tr>
<th>Years</th>
<th>KSCML-G</th>
<th>BCSFL</th>
<th>KSCML-N</th>
<th>KSCML-S</th>
<th>KSCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>1.55</td>
<td>4.52</td>
<td>2.51</td>
<td>1.47</td>
<td>2.63</td>
</tr>
<tr>
<td>2007</td>
<td>2.01</td>
<td>5.08</td>
<td>3.18</td>
<td>2.21</td>
<td>0.28</td>
</tr>
<tr>
<td>2008</td>
<td>13.2</td>
<td>9.17</td>
<td>4.98</td>
<td>11.40</td>
<td>0.16</td>
</tr>
<tr>
<td>2009</td>
<td>1.21</td>
<td>3.99</td>
<td>3.10</td>
<td>2.84</td>
<td>0.94</td>
</tr>
<tr>
<td>2010</td>
<td>6.15</td>
<td>5.36</td>
<td>3.04</td>
<td>4.60</td>
<td>2.24</td>
</tr>
<tr>
<td>Total</td>
<td>24.12</td>
<td>28.12</td>
<td>16.81</td>
<td>22.52</td>
<td>6.25</td>
</tr>
<tr>
<td>Average</td>
<td>4.82</td>
<td>5.62</td>
<td>3.36</td>
<td>4.50</td>
<td>1.25</td>
</tr>
</tbody>
</table>

**Source** - Compiled from Annual Reports.
Unit wise Analysis

**KSCML-G:** Table 4.2 reveals that average collection period of this company was 1.55 in 2006. In 2007 it is slightly increased to 2.01 in 2008 suddenly it is highly increased and lead to 13.2, but it in 2009 it decreased to 1.21 and In 2010 it again increased and reached 6.15

**BCSFL:** The above table demonstrates that the average collection period 9.17 which coast highest in the year 2008 and 3.99 which was lowest in the year 2009. During the study period fluctuating situating can be seen.

**KSCML-N:** The average collection period was 2.51 in the year 2006, In 2007 and 2008 it increased 3.18 and 4.98 respectively, but in 2009 and 2010 it was declining i.e. 3.10 and 3.04 respectively.

**KSCML-S:** The average collection period 11.40 days which was highest in the year 2008 and 2.21 which was lowest in the year 2007. During the study period it was continuously increasing except in the year 2009.

**KSCL:** The average collection period of this company was continuously declining except in the year 2009. In 2006 ACP 263 days which was highest and 0.16 which was lowest in the year 2008.
AVERRAGE CREDIT PERIOD (IN DAYS)
(ONE WAY ANOVA TEST)

Null hypothesis: There is no significant difference in average credit period (in days) of sugar mills under study.

Alternative Hypothesis: There is significant difference in average credit period (in days) ratio of sugar mills under study.

Level of significance : 5 Percent
Critical value : 3.01
Degree of freedom : 16

Table: AVERAGE CREDIT PERIOD (IN DAYS)
(One way ANOVA)
Table No. 4.3

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>Sum of squares</th>
<th>Degree of freedom</th>
<th>Mean Square</th>
<th>F-Calculated Value</th>
<th>F-Critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>105.376</td>
<td>4</td>
<td>26.34</td>
<td>2.11</td>
<td>3.01</td>
</tr>
<tr>
<td>Firm</td>
<td>57.567</td>
<td>4</td>
<td>14.39</td>
<td>1.15</td>
<td>3.01</td>
</tr>
<tr>
<td>Error</td>
<td>199.357</td>
<td>16</td>
<td>12.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Since, the calculated value of F for year is less than the tabulated value of F, we accept the null hypothesis and conclude that there is no significant difference between them.
(ii) Average Credit period (in weeks) have been calculated as
under and this has been presented in table No. 4.4

\[
\text{Average Credit period (in weeks)} = \frac{\text{Debtors}}{\text{Sales}} \times 52
\]

<table>
<thead>
<tr>
<th>Years</th>
<th>KSCML-G</th>
<th>BCSFL</th>
<th>KSCML-N</th>
<th>KSCML-S</th>
<th>KSCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>0.22</td>
<td>0.64</td>
<td>0.35</td>
<td>0.21</td>
<td>0.37</td>
</tr>
<tr>
<td>2007</td>
<td>0.28</td>
<td>0.72</td>
<td>0.45</td>
<td>0.31</td>
<td>0.04</td>
</tr>
<tr>
<td>2008</td>
<td>1.89</td>
<td>0.13</td>
<td>0.71</td>
<td>1.62</td>
<td>0.23</td>
</tr>
<tr>
<td>2009</td>
<td>0.17</td>
<td>0.56</td>
<td>0.44</td>
<td>0.40</td>
<td>0.13</td>
</tr>
<tr>
<td>2010</td>
<td>0.87</td>
<td>0.76</td>
<td>0.43</td>
<td>0.65</td>
<td>0.31</td>
</tr>
<tr>
<td>Total</td>
<td>3.43</td>
<td>2.81</td>
<td>2.38</td>
<td>3.19</td>
<td>1.08</td>
</tr>
<tr>
<td>Average</td>
<td>0.686</td>
<td>0.562</td>
<td>0.476</td>
<td>0.638</td>
<td>0.216</td>
</tr>
</tbody>
</table>

**Source**- Compiled from Annual Reports.

**Unit wise Analysis**

**KSCML-G:** Table 4.4 reveals that average collection period showing
a fluctuating trend; this has slight increased from 0.22 in 2006 to
1.89 in 2008, thereafter reduced to 0.17 in 2009 and again increased
to 0.87 in 2010.

**BCSFL:** Average collection period in 2006 showed 0.64 days. In
2007 in increased to 0.72 days but from 2008 it went to increasing
trend i.e, 0.13, 0.56 and 0.76 respectively.

**KSCML-N:** Average collection period from 2006 to 2008 was
continuously increasing i.e, 0.35, 0.45 and 0.71 respectively but in
2009 it was decreased to 0.44 and in 2010 it was slight increased and
lead to 0.43.

**KSCML-S:** Average collection period of this company during this
period was continuously increasing except in the year 2009 it was
decreased to 0.40.
KSCL: Average collection period showing a fluctuating trend. This has slight decreased from 0.37 days in 2006 to 0.04 days in 2007, thereafter increased to 0.23 days in 2008 but in 2009 it was decreased to 0.13 and again in 2010 it was increased to 0.31 days.

AVERAGE CREDIT PERIOD (IN WEEKS)
(ONE WAY ANOVA TEST)

Null Hypothesis: There is no significant difference in Average credit (in weeks) of sugar mills.

Alternative Hypothesis: There is significant difference in Average credit (in weeks) of sugar mills.

Level of Significance: 5 percent

Critical Value: 3.01

Degree of freedom: 16

AVERAGE CREDIT PERIOD (IN WEEKS)
(ONE WAY ANOVA TEST)

Table No. 4.5

<table>
<thead>
<tr>
<th>Sum of variance</th>
<th>Sum of Squares</th>
<th>Degree of freedom</th>
<th>Mean sum of squares</th>
<th>Calculated value of F</th>
<th>Tabulated Value Fat 5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years</td>
<td>1.240</td>
<td>4</td>
<td>0.310</td>
<td>1.349</td>
<td>3.01</td>
</tr>
<tr>
<td>Firm</td>
<td>0.687</td>
<td>4</td>
<td>0.171</td>
<td>0.747</td>
<td>3.01</td>
</tr>
<tr>
<td>Error</td>
<td>3.676</td>
<td>16</td>
<td>0.229</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>24</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Since, the calculated value of F for year is less than the tabulated value of F, we accept the null hypothesis and conclude that there is no significant difference between them.
(iii) Average Credit period (in months) have been calculated as
under and this has been presented in table No. 4.6

\[
\text{Average Credit period (in months)} = \frac{\text{Debtors}}{\text{Sales}} \times 12
\]

Table No. 4.6

<table>
<thead>
<tr>
<th>Years</th>
<th>KSCML-G</th>
<th>BCSFL</th>
<th>KSCML-N</th>
<th>KSCML-S</th>
<th>KSCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>0.05</td>
<td>0.14</td>
<td>0.08</td>
<td>0.04</td>
<td>0.08</td>
</tr>
<tr>
<td>2007</td>
<td>0.06</td>
<td>0.16</td>
<td>0.10</td>
<td>0.07</td>
<td>0.009</td>
</tr>
<tr>
<td>2008</td>
<td>0.43</td>
<td>0.30</td>
<td>0.16</td>
<td>0.37</td>
<td>0.05</td>
</tr>
<tr>
<td>2009</td>
<td>0.03</td>
<td>0.13</td>
<td>0.10</td>
<td>0.09</td>
<td>0.03</td>
</tr>
<tr>
<td>2010</td>
<td>0.20</td>
<td>0.17</td>
<td>0.43</td>
<td>0.15</td>
<td>0.07</td>
</tr>
<tr>
<td>Total</td>
<td>0.77</td>
<td>0.90</td>
<td>0.87</td>
<td>0.72</td>
<td>0.239</td>
</tr>
<tr>
<td>Average</td>
<td>0.154</td>
<td>0.18</td>
<td>0.174</td>
<td>0.144</td>
<td>0.0478</td>
</tr>
</tbody>
</table>

**Source:** Compiled from Annual Reports.

**Unit wise Analysis**

**KSCML-G:** Table 4.6 demonstrate that this collection period was continuously increasing from 2006 to 2008 i.e, 0.05, 0.06 and 0.43 respectively but in 2009 it was decreased to 0.03 and in 2010 again it was to 0.20.

**BCSFL:** In this company average collection was increasing from 2006 to 2008 i.e, 0.14, 0.16 and 0.30 respectively but 2009 it was decline to 0.13 and in 2010 it was slight increased and lead to 0.17.

**KSCML-N:** Average collection period showed a increasing trend from 2006 to 2008 i.e, 0.08, 0.10 & 0.16 respectively, thereafter it decreased to 0.10 and again in 2010 it increased to 0.43.
KSCML-S: Average collection period showed a increasing trend from 2006 to 2008 i.e, 0.04, 0.07 and 0.37 respectively but in 2009 it decreased to 0.09 thereafter again in 2010 it increased to 0.15.

KSCL: In 2006 and 2007 average collection period was slight increasing i.e, 0.08 and 0.09 respectively but in 2008 and 2009 it was declining to 0.05 & 0.03 respectively thereafter it increased to 0.07 in 2010.

**AVERAGE CREDIT PERIOD (IN MONTHS)**

**(ONE WAY ANOVA TEST)**

Null Hypothesis: There is no significant difference in average credit (in months) of sugar mills

Alternative Hypothesis: There is significant difference in average credit (in months) of sugar mills.

Level of Significance: 5 percent

Critical Value: 3.01

Degree of freedom: 16

**AVERAGE CREDIT PERIOD (IN MONTHS)**

**(ONE WAY ANOVA TEST)**

Table No. 4.7

<table>
<thead>
<tr>
<th></th>
<th>Sum of variance</th>
<th>Degree of freedom</th>
<th>Mean sum of squares</th>
<th>Calculated value of F</th>
<th>Tabulated Value Fat 5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years</td>
<td>0.152</td>
<td>4</td>
<td>0.038</td>
<td>0.979</td>
<td>3.01</td>
</tr>
<tr>
<td>Firm</td>
<td>0.057</td>
<td>4</td>
<td>0.014</td>
<td>0.367</td>
<td>3.01</td>
</tr>
<tr>
<td>Error</td>
<td>0.623</td>
<td>16</td>
<td>0.038</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Since, the calculated value of F for year is less than the tabulated value of F, we accept the null hypothesis and conclude that there is no significant difference between them.
Graph No. 4.3

Average Collection Period (In Months)

ACP (in months) 2006

ACP (in months) 2007

ACP (in months) 2008
(iv) Percentage of Debtors to current Assets have been calculated as under and this has been presented in table No. 4.8

\[
\text{Percentage} = \frac{\text{Debtors}}{\text{Current Assets}} \times 100
\]

Table No. 4.8

<table>
<thead>
<tr>
<th>Years</th>
<th>KSCML-G</th>
<th>BCSFL</th>
<th>KSCML-N</th>
<th>KSCML-S</th>
<th>KSCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>0.45</td>
<td>1.49</td>
<td>0.66</td>
<td>0.47</td>
<td>0.67</td>
</tr>
<tr>
<td>2007</td>
<td>0.62</td>
<td>1.48</td>
<td>1.37</td>
<td>0.65</td>
<td>0.10</td>
</tr>
<tr>
<td>2008</td>
<td>1.896</td>
<td>1.44</td>
<td>0.68</td>
<td>2.13</td>
<td>0.20</td>
</tr>
<tr>
<td>2009</td>
<td>0.32</td>
<td>1.59</td>
<td>0.92</td>
<td>0.90</td>
<td>0.29</td>
</tr>
<tr>
<td>2010</td>
<td>2.49</td>
<td>3.53</td>
<td>1.35</td>
<td>1.86</td>
<td>0.77</td>
</tr>
<tr>
<td>Total</td>
<td>5.77</td>
<td>9.53</td>
<td>4.98</td>
<td>6.01</td>
<td>2.03</td>
</tr>
<tr>
<td>Average</td>
<td>1.154</td>
<td>1.906</td>
<td>0.996</td>
<td>1.202</td>
<td>0.406</td>
</tr>
</tbody>
</table>

Source- Compiled from Annual Reports.

Unit wise Analysis

**KSCML-G:** The above table no. 4.8 reveals that from 2006 to 2008 it was increasing i.e, 0.45, 0.62 and 1.89 respectively, thereafter if decline to 0.32 in 2009 but in 2010 it was again increased to 2.49.

**BCSFL:** This company showed a declining trend from 2006 to 2008 i.e., 1.49, 1.48 and 1.44 respectively thereafter, it went on increasing trend i.e, 1.59 and 3.53 respectively.

**KSCML-N:** This company showing a fluctuating trend, this has increased from 0.66 in 2006 to 1.37 in 2007, thereafter it decreased to 0.68 in 2008 but in 2009 and 2010 it went on increasing trend i.e, 0.92 and 1.35 respectively.
KSCML-S: In between 2006 to 2008 it showed a increasing trend i.e, 0.47, 0.65 and 2.13 respectively thereafter it decreased to 0.90 and in 2010 it again increased to 1.86 days.

KSCL: This has decreased from 0.67 in 2006 to 0.10 in 2007, thereafter it showed a increasing trend in 2009 and 2010 i.e, 0.90 and 1.86 respectively.

**Percentage of Debtors to current Assets**

**(ONE WAY ANOVA TEST)**

**Null Hypothesis:** There is no significant difference in Percentage of debtors to current assets of sugar mills

**Alternative Hypothesis:** There is significant difference in Percentage of debtors to current assets of sugar mills.

**Level of Significance:** 5 percent

**Critical Value:** 3.01

**Degree of freedom:** 16

**Percentage of Debtors to current Assets**

**(ONE WAY ANOVA TEST)**

Table No. 4.9

<table>
<thead>
<tr>
<th>Sum of variance</th>
<th>Sum of Squares</th>
<th>Degree of freedom</th>
<th>Mean sum of squares</th>
<th>Calculated value of F</th>
<th>Tabulated Value Fat 5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years</td>
<td>0.152</td>
<td>4</td>
<td>0.038</td>
<td>0.655</td>
<td>3.01</td>
</tr>
<tr>
<td>Firm</td>
<td>0.057</td>
<td>4</td>
<td>0.014</td>
<td>0.246</td>
<td>3.01</td>
</tr>
<tr>
<td>Error</td>
<td>0.931</td>
<td>16</td>
<td>0.058</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>24</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Since, the calculated value of F for year is less than the tabulated value of F, we accept the null hypothesis and conclude that there is no significant difference between them.
(v) Percentage of Debtors to total Assets have been calculated as
under and this has been presented in table No. 4.10

\[
\frac{\text{Debtors}}{\text{Total Assets}} \times 100
\]

Table No. 4.10

<table>
<thead>
<tr>
<th>Years</th>
<th>KSCML-G</th>
<th>BCSFL</th>
<th>KSCML-N</th>
<th>KSCML-S</th>
<th>KSCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>0.18</td>
<td>1.19</td>
<td>0.52</td>
<td>0.16</td>
<td>0.49</td>
</tr>
<tr>
<td>2007</td>
<td>0.20</td>
<td>1.05</td>
<td>0.71</td>
<td>0.20</td>
<td>0.06</td>
</tr>
<tr>
<td>2008</td>
<td>0.71</td>
<td>0.98</td>
<td>0.36</td>
<td>0.67</td>
<td>0.13</td>
</tr>
<tr>
<td>2009</td>
<td>0.11</td>
<td>0.95</td>
<td>0.41</td>
<td>0.25</td>
<td>0.17</td>
</tr>
<tr>
<td>2010</td>
<td>0.71</td>
<td>1.49</td>
<td>0.04</td>
<td>0.48</td>
<td>0.48</td>
</tr>
<tr>
<td>Total</td>
<td>1.91</td>
<td>5.66</td>
<td>2.04</td>
<td>1.76</td>
<td>1.33</td>
</tr>
<tr>
<td>Average</td>
<td>0.382</td>
<td>1.132</td>
<td>0.408</td>
<td>0.352</td>
<td>0.266</td>
</tr>
</tbody>
</table>

Source- Compiled from Annual Reports.

Unit wise Analysis

**KSCML-G:** The above table No. 4.10 demonstrate that during the study period from 2006 to 2008 it showed a slight increasing trend but in 2009 it decreased to 0.11 and in 2010 again it increased to 0.71.

**BCSSFL:** During the study period from 2006 to 2009 it showed a declining trend i.e, 1.19, 1.05, 0.98 and 0.95 respectively thereafter it increased to 1.49 days in 2010.

**KSCML-N:** This Company showing a fluctuating trend during the study period from 0.52 in 2006 to 0.71 in 2007, thereafter 0.36 in 2008 to 0.41 in 2009 and in 2010 it lead to 0.04 days.

**KSCML-S:** From 2006 to 2008 it went on increasing trend i.e, 0.16, 0.20 and 0.67 respectively but in 2009 it decreased to 0.25 days thereafter again it increased to 0.48 days in 2010.
KSCL: This has deceased from 0.49 in 2006 to 0.06 in 2007, thereafter it showed a increasing trend from 2008 to 2010 i.e, 0.13, 0.17 and 0.48 days respectively.

**Percentage of Debtors to Total Assets**
(ONE WAY ANOVA TEST)

**Null Hypothesis:** There is no significant difference in Percentage of debtors to current assets of sugar mills

**Alternative Hypothesis:** There is significant difference in Percentage of debtors to current assets of sugar mills.

**Level of Significance:** 5 percent

**Critical Value:** 3.01

**Degree of freedom:** 16

**Percentage of Debtors to Total Assets**
(ONE WAY ANOVA TEST)

Table No. 4.11

<table>
<thead>
<tr>
<th>Sum of variance</th>
<th>Sum of Squares</th>
<th>Degree of freedom</th>
<th>Mean sum of squares</th>
<th>Calculated value of F</th>
<th>Tabulated Value Fat 5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years</td>
<td>0.211</td>
<td>4</td>
<td>0.052</td>
<td>0.897</td>
<td>3.01</td>
</tr>
<tr>
<td>Firm</td>
<td>2.490</td>
<td>4</td>
<td>0.622</td>
<td>10.579</td>
<td>3.01</td>
</tr>
<tr>
<td>Error</td>
<td>0.941</td>
<td>16</td>
<td>0.058</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>24</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Since, the calculated value of F for year is less than the tabulated value of F, we accept the null hypothesis and conclude that there is no significant difference between them.
Graph No. 4.5

Percentage of Debtors to Total Assets

Percentage of Debtors to Total Assets 2006

Percentage of Debtors to Total Assets 2007

Percentage of Debtors to Total Assets 2008
Consolidated Ratios

To study the management of receivables at industry level, consolidated ratios for the whole industry are presented in Table No. 4.12

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Collection Period (days)</td>
<td>9.80</td>
<td>2.60</td>
<td>10.68</td>
<td>3.09</td>
<td>11.64</td>
</tr>
<tr>
<td>Average Collection Period (week)</td>
<td>1.39</td>
<td>0.35</td>
<td>1.52</td>
<td>0.44</td>
<td>1.65</td>
</tr>
<tr>
<td>Average Collection Period (months)</td>
<td>0.32</td>
<td>0.08</td>
<td>0.35</td>
<td>0.17</td>
<td>0.38</td>
</tr>
<tr>
<td>% of Debtor to current Assets</td>
<td>2.81</td>
<td>0.83</td>
<td>1.56</td>
<td>0.98</td>
<td>4.93</td>
</tr>
<tr>
<td>% to Debtors to Total Assets</td>
<td>2.01</td>
<td>0.52</td>
<td>0.79</td>
<td>0.43</td>
<td>1.88</td>
</tr>
</tbody>
</table>

Source: Compiled from annual reports.

Analysis:

Average collection period (in days): This table No. 4.12 showed 11.64 days which was highest in the year 2010 and 2.60 days which was lowest in the year 2007. During the study period there was increasing and decreasing trend.

Average collection period (weeks): During the period it showed a fluctuating trend. This has decreased from 1.39 weeks in 2006 to 0.35 weeks to 2007, thereafter it has increased to 1.52 weeks in 2008 but in 2009 against it decreased to 0.44 weeks and increased to 1.65 weeks.

Average collection period (months): This showed a fluctuating trend during the study period. There was slight increase and decrease 0.38 months which was slight highest in the year 2010 and 0.08 months which was slight lowest in the year 2007.

Percentage of Debtors to current Assets: There was increasing and declining trend during the study period. 4.93 showed a highest
percentage in the year 2010 and 0.83% which was lowest in the year 2007.

**Percentage of Debtors to Total Assets:** This also showed an increasing and decreasing situation. This has decreased from 2.01 in 2006 to 0.52 in 2007 and thereafter increased to 0.79, 0.43 and 1.88% in the year 2008, 2009 & 2010 respectively.
PROFITABILITY

A firm investigates different possibilities and forecasts the effect of each possibility on its future profit. As the level of receivables increase, cost of financing them goes up. However, with an increase in receivables, there are also increases in sales, which may result in an increase in profit. The relation between cost and benefit in the maintenance of receivables has to properly trace. If, in the ultimate analysis, it is discovered that the benefit is greater than the cost, the decision would certainly be in favor of maintaining receivables.⁴

Data Compiled from Annual Reports regarding receivables, sales and profitability again shown in Table No. 4.13
### Relationship between Receivables and Sales and Profitability

**Table No. 4.13**

<table>
<thead>
<tr>
<th>Year</th>
<th>KSCML-G</th>
<th>BCSFL</th>
<th>KSCML-N</th>
<th>KSCML-S</th>
<th>KSCL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Receivables</td>
<td>Sales</td>
<td>Profitability</td>
<td>Receivables</td>
<td>Sales</td>
</tr>
<tr>
<td>2006</td>
<td>0.15</td>
<td>36.14</td>
<td>-5.26</td>
<td>0.87</td>
<td>70.24</td>
</tr>
<tr>
<td>2007</td>
<td>0.19</td>
<td>35.49</td>
<td>-17.38</td>
<td>0.90</td>
<td>64.71</td>
</tr>
<tr>
<td>2008</td>
<td>0.90</td>
<td>24.76</td>
<td>-13.40</td>
<td>1.15</td>
<td>45.79</td>
</tr>
<tr>
<td>2009</td>
<td>0.14</td>
<td>45.11</td>
<td>-0.67</td>
<td>0.82</td>
<td>75.82</td>
</tr>
<tr>
<td>2010</td>
<td>0.92</td>
<td>55.09</td>
<td>-14.19</td>
<td>1.07</td>
<td>73.34</td>
</tr>
</tbody>
</table>

Source: Compiled from annual reports.
Unit wise Analysis

**KSCML-G:** The above table No. 4.13 demonstrate that in 2007 receivables increased from 0.15 to 0.19 but sales decreased and loss also increased. In 2008 receivables again increased but sales decreased and in this year loss decreased. In 2009 Receivables decreased but sales increased and in this year table showed profit. In 2010 receivables and sales both increased but there was loss.

**BCSFL:** In 2007 receivables increased from 2006 but sales decreased and loss also increased. In 2008 there was decrease in receivables, sales and loss. In 2009 receivables decreased but sales increased and loss also increased. In 2010 receivables increased but sales decreased and loss also increased.

**KSCML-N:** In 2007 receivables and sales both increased but loss also increased in this year. In 2008 receivables, sales and loss all went on decreasing trend. In 2009 receivables and sales increased but loss decreased in this year. In 2010 all three components went on increasing track.

**KSCML-S:** In 2007 receivables increased but sales decreased and loss also increased from 2006. In 2008 this table showed same condition as 2007. In 2009 receivables decreased but sales increased and loss also decreased thereafter all three components increased in the year 2010.

**KSCL:** In 2007 receivables decreased from 2006 but sales increased and there was no profit no loss (loss decreased). In 2008 and 2009 receivables and sales both increased and in 2008 table showed no profit no loss but in 2009 it showed loss after that receivables and sales both increased and table showed profit in the year 2010.
Graph No. 4.7

RELATIONSHIP BETWEEN RECEIVABLES AND SALES AND PROFITABILITY

YEAR 2006

YEAR 2007

YEAR 2008
REFERENCES


