22/4/2020

Lecture → 23
Subject → FAM
Unit → VI
Topic → Receivable Management

Meaning and Definations of Receivables

Accounts receivable are simply extensions of credit to the firm's customer's allowing them a reasonable period of time in which to pay for the goods. it is the financial officer's responsibility to guard against over investment in account receivable.

Receivables are also known as accounts receivables, trade receivables, customer receivables or book debts.

Accordding to Hampton, "Receivables are asset accounts representing amount owned to firm as a result of sale of goods or services in ordinary course of business."

2. Costs of Receivable

2.1 Cost of Financing

The credit sales delays the time of sales realization and therefore, the time gap between incuring the cost and the sales realization is extended. This results in blocking of funds for a longer period. The firm on the other hand, has to arrange funds to meet its own obligation towards payment to the supplier, employees etc. These funds are to the procured at some explicit or implicit cost. This is known as the cost of financing the receivables.

2.2 Administrative Cost

A firm will also be required to incur various costs in order to maintain the record of credit customers both before the credit sales as well as after the credit sales. Before credit sales, costs are incurred on obtaining information regarding credit worthiness of the customers, while after credit sales, the cost are incurred on maintaining the record of credit sales and collection thereof.

2.3 Delinquency Costs

Over and above the normal administrative cost of maintaining and collection of receivables, the firm may have to incur additional costs known as delinquency costs, if there is delay in payment by a customer. The firm may have to incur cost on reminders, phone calls, postage legal notices etc. Moreover, there is always an opportunity cost of the funds tied up in the receivable due to delay in payment.

2.4 Cost of Default by Customers

If there is a default by a customer and the receivable becomes partly or wholly unrealizable, then this amount, known as bad debt, also becomes a cost to the firms. This cost does not appear in case of cash sales.

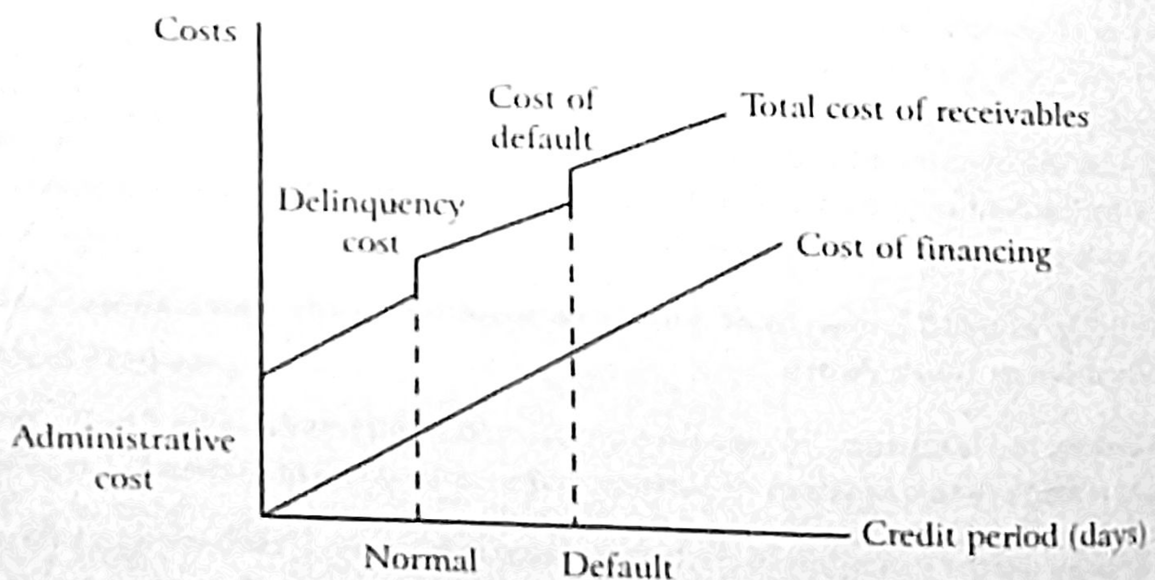

Fig. 1: Different types of costs of receivables

Different costs associated with the receivables have been presented in above figure. The figure shows that the total cost of receivables consists of cost of financing, which is a factor of time, plus cost of administration plus cost of delinquency plus cost of default.

3. Factors Affecting the Size of Receivables

Besides sales, a number of order factors also influence the size of receivables. The following factors directly and indirectly affect the size of receivables:

1. **Size of Credit Sales:** The volume of credit sales is the first factor which increases or decreases the size of receivables. If a concern sells only on cash basis, as in the case of Bata Shoe Company, then there will be no receivables. The higher the part of credit sales out of total sales.

2. **Credit Policies:** A firm with conservative credit policy will have a low size of receivables while a firm with liberal credit policy will be increasing this figure. The vigor with which the concern collects the receivables also affects its receivables. If collections are prompt then even of credit is liberally extended the size of receivables will remain under control.

3. **Terms of Trade:** The size of receivables also depends upon the terms of trade. The period of credit allowed and rates of discount given are linked with receivables.

4. **Expansion Plans:** When a concern wants to expand its activities it will have to enter new markets. To attract customers, it will given incentives in the form of credit facilities. The periods of credit can be reduced when the firm is able to get permanent customers in the early stages of expansion more credit becomes essential and size of receivables will be more.

5. **Credit Collection Efforts:** The collection of credit should be streamlined. The customers should be sent periodical remainders if they fail to pay in time on the other hand, if adequate attention is not paid towards credit collection then the concern can land itself in a series financial problem. Efficient credit collection machinery will reduce the size of receivables. If these efforts are slower then outstanding amounts will be more.

6. **Habit of Customer:** The paying habits of customers also have a bearing on the size of receivables. The customers may be in the habit of delaying payments even though they are financially sound the concern should remain in touch with such customers and should make them realize the urgency of their needs.

7. **Size and Policy of Cash Discount:** It is also an important variable in deciding the level of investment in receivable cash discount affects the cost of capital and the investment in receivables. If cost of capital of the firm is lower in comparison to the cash discount to the allowed, investment in receivables will be less, if both are equal. It will not affect the investment at all. If cost of capital is higher than cash discount, the investment in receivables will be larger.

4. Benefits of Receivables

4.1 Increase in Sales

Except a few monopolistic firms most of the firms are required to sell goods on credit, either because of trade customers or other conditions. The sales can further be increased by liberalizing the credit terms. This will attract more customers to the firm resulting in higher sales and growth of the firm.

(i) **Increase in Profits:** Increase in sales will help the firm:

(a) To easily recover the fixed expenses and attaining the break-even level, and

(b) Increase the operating profit of the firm. In a normal situation, there is a positive relative between the sales volume and the profit.

(ii) **Extra Profit:** Sometimes, the firms make the credit sales at a price which is higher than the usual cash selling price. This brings an opportunity to the firm to make extra profit over and above the normal profit.

The investments in receivables involve both benefits and costs. The extension of trade credit has a major impact on sales, costs and profitability. Other things being equal, a relatively liberal policy and, therefore, higher investments in receivables, will produce larger sales. However costs will be higher with liberal policies than with more stringent measures.

Therefore, accounts receivables management should aim at a trade of between profit (benefit) and risk (cost). That is to say, the decision to commit funds to receivables (or the decision to grant credit) will be based on a comparison of the benefits and costs involved, while determining the optimum level of receivables. The costs and benefits to be compared are marginal costs and benefits. The firm should only consider the incremental benefits and costs that result from a change in the receivables or trade credit policy.

5. Meaning of Receivables Management

Receivables management is the process of making decisions relating to investment in trade debtors. Certain investment in receivables is necessary to increase the sales and the profits of a firm. But at the same time investment in this asset involves cost consideration also. Further there is always a risk of bad debts too.

The term receivables management may be defined as collection of steps and procedure required to properly weight the costs and benefits attached with the credit policies. The receivables management consists of matching the cost of increasing sales (particularly credit sales) with the benefits arising out of increased sales with the objective of maximizing the return on investment of the firm.

6. Objectives of Receivables Management

The objectives of receivables management are to improve sales, eliminate bad debts, and reduce transaction costs incidental to maintenance of accounts and collection of sales proceeds and finally, enhance profits of the firm. Credit sales help the organization to make extra profit. It is a known fact firms charge a higher price, when sold on credit, compared to normal price.

6.1 Book Debts are Used as a Marketing Tool for Improvement of Business

If the firm wants to expand business, it has to necessarily sell on credit after a certain level, additional sales do not create additional production costs, due to the presence of fixed costs. So the additional contribution, totally, goes towards profit, improving the profitability of the firm.

6.2 Optimum Level of Investment in Receivables

To support sales, it is necessary for the firm to make investment in receivables. Investment in receivables involves costs as funds are tied up in debtors. Further, there is also risk in respect of bad debts tool. On the other hand, receivables bring returns. If so, till what level investment is to be made in receivables ? Investment in receivables is to be made till the incremental costs are less than the incremental return.

Thus the objective of receivables management is to make a sound investment in debtors. In the words of Botter, S.E. The objective of receivables management is to promote sales and profits until that point is reached where the return on investment in funding receivables is less than the cost of funds raised to finance that additional credit.

7. Dimensions of Receivables Management

Receivables management involves the careful consideration of the following aspects:

1. Credit Policy
2. Credit Analysis
3. Credit Granting Decision
4. Policies for Managing Accounts Receivables.

7.1 Credit Policy

The credit policy of a company can be regarded as a kind of trade-off between increased credit sales leading to increased in profit and the cost of having larger amount of cash locked up in the form of receivables and the loss due to the incidence of bad debts. In competitive market, the credit policy adopted by a company is considerably influenced by the practices followed by the industry. A change in the credit policy of a company say, by extending credit policy of a company, to 30 days, when the other companies are following a credit period of 15 days can result in such a high demand for the company's product that it can not cope with. Further, other companies also may have to fall in line in the long run. It is assumed generally that such factors have already been taken into consideration before making changes in the credit policy of a company.

The credit policy of a firm provides the frame work to determine:

(i) Whether or not to extend credit to a customer.

(ii) How much credit to extend.

The credit policy decision of firm has two broad dimensions:

1. Credit Standards
2. Credit Term
3. Collection Policies

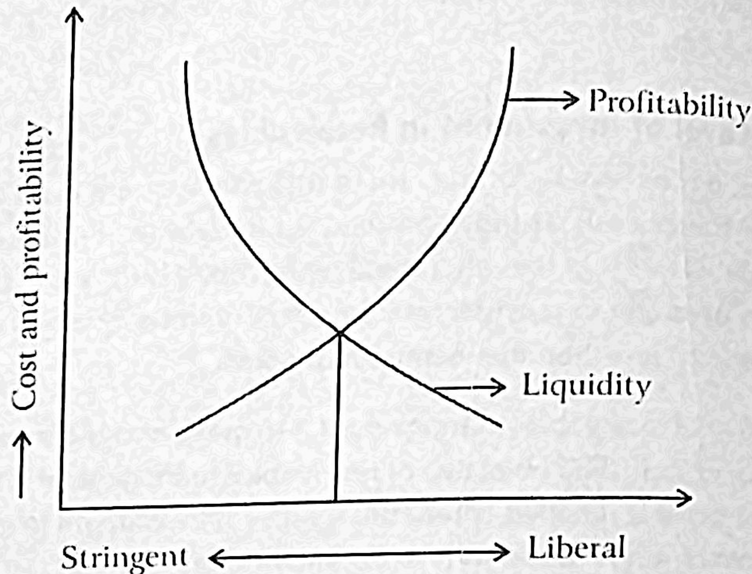

Fig. 2: Credit policy (optimum level)

1. **Credit Standards:** When a firm sells on credit, it takes a risk about the paying capacity of the customers therefore, to be on a safer side, it must set credit standard which should be applied in selecting customers for credit sales. The initial tendency may be to set rigorous standards which may hamper the sales growth. At the other extreme, if the standards are set loosely, it may make the firm to bear losses as many customers may turn out to be bad debts. Therefore, the problem is to balance the benefits of additional sales against the cost of increasing bad debts. The following points are worth noting while setting the credit standard for a firm.

   (i) Effect of a particular standard on the sales volume.

   (ii) Effect of a particular standard on the total bad debts.

   (iii) Effect of a particular standard on the total collection cost.

   Further, the above considerations are also relevant if there is proposal to change the credit standard from the present level. The credit standard will help setting the level which must be satisfied by a customer before being selected for making credit sales. However, even after selecting the customers, all of them need not necessarily be offered same terms and conditions. The credit policy should also set out clearly the terms of credit being offered to different types of customers.

2. **Credit Terms:** The credit terms refers to the set of stipulations under which the credit is extended to the customers while custom of the market frequently dictate the nature of the terms and conditions offered by a firm, the firm, nevertheless, can design its own credit terms as a dynamics instruments in its overall sales efforts. The credit terms specify how the credit will be the offered, including the length of the period for which the credit will be the offered, the interest rate on the credit, and the cost of default. The credit terms may relate to the following:

(i) **Credit Period:** The collection of receivables is influenced by the period allowed for availing the discount. The additional period allowed for this facility may prompt some more customers to avail discount and make payments. This will mean additional funds released from receivables which may be alternatively used. At the same time the extending of discount period will result in late collection of funds because those who were getting discount and making payments as per earlier schedule will also delay their payments.

(ii) **Cash Discount:** Cash discount is allowed to expedite the collections of receivables. The funds tied up in receivables are released. The concern will be able to use the additional funds received from expedited collections due to cash discount. The discount allowed involves cost. The financial manager should compare the earnings resulting from released funds and the cost of discount. The discount should be allowed only if its cost is less than the earnings from additional funds. If the funds can not be profitably employed then discount should not be allowed.

3. **Collection Policies:** The third area involved in the credit policy is collection policies. They refer to the procedures followed to collect accounts receivable when, after the expiry of the credit period, they become due.

7.2 Credit Analysis

Besides establishing credit standards a firm should develop procedure for evaluating credit applicants. The second aspect of receivables management of a firm is credit analysis and investigation. Two basic steps are involved in the credit investigation process.

1. **Obtaining Credit Information:** The first step in credit analysis is obtaining credit information on which to base the evaluation of a customer. The sources of information, broadly speaking are:

(i) **Internal:** Usually, firms require their customers to fill various forms and documents giving details about financial operations. They are also required to furnish trade references with whom the firms can have contacts to judge the suitability of the customer for credit. This type of information is obtained from internal sources of credit information.

(ii) **External:** The availability of information from external sources to assess the credit worthiness of customers depends upon the development of institutional facilities and industry practices. In India, the external sources of credit information are not as developed as in the industrially advanced countries of the world. Depending upon the availability, the following external sources may be employees to collect information

(a) **Financial Statements:** One external source of credit information is the published financial statements, that is the balance sheet and the profit and loss account. The financial statements contain very useful information. They throw light on an applicant's financial viability, liquidity profitability and debt capacity although the financial statements do not directly reveal the post payment record of the applicant, they are very helpful in assessing the overall financial positions of a firm, which significantly determines its credit standing.

(b) **Bank References:** Another useful source of credit information is the bank of the firm which is contemplating the extension of credit. The modus operandi here is that the firm's banker collects the necessary information from the applicant's banks. Alternatively, the applicant may be required to ask his banker to provide the necessary information either directly to the firm or to its bank.

(c) **Trade References:** These refer to the collection of information from firms with whom the applicant has dealings and who on the basis of their experience would vouch for the applicant.

(d) **Credit Bureau Reports:** Finally specialist credit bureau reports from organization specializing in supplying credit information can also be utilized.

2. **Analysis of Credit Information:** Once the credit information has been collected from different sources, it should be analyzed to determine the credit-worthiness of the applicant.

3. **The Well Known 5C's of Credit**

(i) **Character:** The word character as a credit standard refers to borrower's honesty, responsibility, integrity and consistency.

(ii) **Capacity:** It refers to the ability of the borrowers to pay their financial obligations. This is determined by current expected income, existing debts and ongoing expenses.

(iii) **Capital:** It is the amount of assets that can be liquidated for the payment of debt if all other means of collecting it fail. This cushion of assets is represented by a firm's equity.

(iv) **Collateral:** Collateral refers to assets that are pledged for security in a credit transaction.

(v) **Conditions:** Conditions refer to economic factors, which are beyond the control of funds and which affect company's ability to pay debts.

BREAK-EVEN ANALYSIS

1. Break-even Analysis

Break-even analysis is the useful technique of profit planning and prediction. This analysis is principally concerned with the study of revenues and costs of firm in relation to profit at different levels of sales. It magnifies a set of inter-relationship of fixed cost, the level of activity and sales mix to the profitability of the concern.

According to **Curry and frank,** "*A break-even analysis indicates at what level cost and revenue are in equilibrium.*" Thus, this analysis determines the volume of operation where total revenues equal total cost. This level volume is know as break-even point.

1.1 Definitions

According to **M/s Keller and Ferrara**, "*The break even point of the company or a unit of a company is the level of sales income which will equal the sum of its fixed cost and its variable costs*".

According to **Charles T. Horngren**, "*The break-even point is that points of activities where total revenue and total expenses are equal. It is the profit of zero profit and zero loss.* Here, it is to be noted that the break even point no profit and loss is reported and if volume of output and sales is less than the break-even level.

1.2 Determination of Break-even point.

Break even analysis involves calculation of break-even points. There are two techniques of its computation.

1. **Equation technique:** Under this technique the following equation are used.

   (A) BEP in value

   Sales revenue at BEP = $F.C + T.V.C$

   $F.C.$ = Fixed cost

   $T.V.C.$ = Total variable cost

2. Assumptions of Break-even Analysis

The Break-even analysis is based on a series of assumptions which are as follow :

1. The principle of cost variability is valid. According to this principle upto a certain level of output the total amount of certain type of expenses remain fixed and certain type of expenses fluctuates with the change in output.
2. All cost (Production, selling and administration) can be segregated into fixed and variable components.
3. Selling price of the products will remain constant at each output level and variable cost will fluctuate in direct preposition of output.
4. The total amount of fixed cost will remain constant.
5. There will be no change in technological methods and efficiency of men and machinery.
6. Cost control will be neither strengthened nor weakened.

7. Revenues and cost are compared on a common activity base sales value of the products or number of unit produced.
8. Output or sales volume only is assumed to be the relevant factor affecting costs.

3. Limitations of Break Even Analysis

The limitation of break-even analysis are as follows :

1. The break-even analysis assume that all cost can be segregated into there fixed and variable components. But in Practice this assumption does not hold true in case precise segregation of several cost items into there fixed and variable components is not possible.
2. This analysis assume the principle of cost variability is valid and behaviour of cost is linear but in fact this behaviour patterns change and may not be linear.
3. The assumption that sales price of the product will remain constant at all volumes of sales in unrealistic because market conditions are seldom perfectly competitive in practice selling price tends to decrease on an increase in the volume of output and sales.
4. Break-even analysis is of doubtful validity when the business is selling many products with different profit planning.
5. Break-even analysis is of static nature and it is useful in comparatively static situations.
6. It is specially difficult to handle selling cost in break-even analysis because these cost are the causes and not the results of change in volume of output and sales.

3.1 Profit Volume Analysis (P.V.R)

Profit-Volume analysis is a very useful technique of studying the profit behaviour. It analyses the relationship between sales volume and profits and measures the effect on profit of change in sales volume. This analysis is based on the calculation of profit volume ratio.

In other words, Profit volume ratio expresses percentage relationship between contribution and sales, it is the ratio of amount available for the recovery of fixed expenses and the profit with the amount of sales. This ratio is calculated by using the following formulae.

(i) $$\text{P/V Ratio} = \frac{\text{Sales per unit} - \text{Variable cost per units}}{\text{Total sales}} \times 100$$

or

(ii) $$\text{P/V Ratio} = 100 - \%\text{ of variable cost}$$

(iii) $$\text{P/V Ratio} = \frac{\text{Contribution P.V}}{\text{Selling Price P.V}} \times 100$$

(iv) P/V Ratio (with figures of profits and sales of two periods)

$$= \frac{\text{Change of profit}}{\text{Change in sales}} \times 100$$

(v) P/V Ratio $= \frac{\text{Net profit}}{\text{Margin of safety}} \times 100$

(vi) P/V Ratio $= \frac{\text{Fixed cost}}{\text{B.E.P in value}} \times 100$

3.2 Application of P/V Ratio :

1. Determination of break-even point :

$$\text{BEP} = \frac{\text{Fixed cost}}{\text{P/ V ratio}} \times 100$$

2. Determination of Contribution :

$$\text{Contribution} = \text{Sales volume} \times \text{P.V. ratio}$$

3. Determination of Profit

$$\text{Profit /Loss} = \text{Sales} \times \text{P/V ratio} - \text{Fixed cost}$$

Example 3: The following information was obtained from *A* Co. Ltd. in a certain year.

Sales ₹ 2,00,000

Variable Cost ₹ 1,20,000

Fixed Cost ₹ 60,000

Find the *P/V* Ratio, break even points, and margin of safety.

Solution:

$$\text{P.V.R} = \frac{S - V}{S} \times 100$$

$$= \frac{2{,}00{,}000 - 1{,}20{,}000}{2{,}00{,}000} \times 100 = 40\%$$

$$\text{Break-even point} = \frac{\text{Fixed cost}}{\text{P/V ratio}} \times 100$$

$$= \frac{60{,}000}{40} \times 100$$

$$= 1{,}50{,}000$$

$$\text{Margin of safety} = \frac{\text{Profit}}{\text{P/V ratio}} \times 100$$

$$= \frac{20{,}000}{40} \times 100 = 50{,}000$$

Profit* = Sales × P/V ratio – Fixed cost

$$= 2,00,000 \times \frac{40}{100} - 60,000$$

$$= 20,000$$

4. Margin of Safety

The concept of margin of safety is very important in break even analysis. It is the difference between the actual sales and the sales at the break even point.

According to **T. Horngren** " *The margin of safety is the excess of budgeted or actual sales over the break-even sales volume*".

4.1 Determination of Margin of Safety

(i) Actual sales – Break-even sales

(ii) $\text{Margin of safety} = \frac{\text{Profit}}{\text{P/V}} \times 100$

(iii) $\text{Margin of safety} = \frac{\text{Profit} \times \text{Sales}}{\text{Contribution}}$

Example 4: From the following find out :

(i) P/V Ratio

(ii) Break-even point

(iii) Sales for 40% P/V Ratio

(iv) Margin of safety from the sales of ₹ 3,00,000

(v) Net profit from the sales of ₹ 3,00,000

(vi) Required sales for the net profit of ₹ 70,000

(vii) Additional sales required to cover an increase of ₹ 3000 per annum in the sales Manager's Salary.

Position of Vats Ltd. for the year 2014.

	₹
Sales	2,00,000
Less-V. cost	1,50,000
Gross profit	50,000
Less-fixed cost	15,000
Net Profit	35,000

Solution:

(i) P/V Ratio $= \frac{S - V}{S} \times 100$

$$= \frac{2,00,000 - 1,50,000}{2,00,000} \times 100 = 25\%$$

(ii) Break-even point $= \frac{F}{P/V \text{ ratio}}$

$$= \frac{15000}{25\%} \text{ or } \frac{15000}{25} \times 100$$

$$= ₹\ 60,000$$

(iii) Sales $= \frac{\text{Sales} - \text{Variable cost}}{\text{New P/V ratio}}$

$$= \frac{2,00,000 - 1,50,000}{40\%}$$

$$= \frac{50,000}{40} \times 100$$

$$= ₹\ 1,25,000$$

(iv) Margin of safety = New sales – BEP

$$= 3,00,000 - 60,000 = ₹\ 2,40,000$$

(v) Net Profit from sales ₹ 3,00,000

Net Profit = Sales × P/V.R – FC

$$= 3,00,000 \times \frac{25}{100} - 15,000$$

$$= ₹\ 60,000$$

(vi) Required sales for the net profit ₹ 70,000

$$\text{Sales} = \frac{\text{Fixed Cost} + \text{Required Profit}}{\text{P/V ratio}}$$

$$= \frac{15,000 + 70,000}{25} \times 100$$

$$= ₹\ 340.000$$

(viii) Additional Sales $= \frac{\text{Increase in fixed cost}}{\text{P/V ratio}}$

$$= \frac{3,000}{25} \times 100 = ₹\ 12,000$$