# CHAPTER FOUR

# Livestock and livestock products marketing chain, costs and margin

Dear learner, do you have any ideas about marketing channels, margin and costs of farm products? (You can write your responses on the spaces given below)

* 1. **Marketing Channels**

Dear learner, do you know what a marketing channel do mean?

There are different definitions for marketing channels based on the breadth and width of interest of analysis. Dear learner, these are among the most common and comprehensive definitions on the topic.

1. According to Moore “The chain of intermediaries through whom the various food grains pass from producers to consumers constitutes their marketing channels”.

2. Kohls and Uhl have defined marketing channels as alternative routes of product flows from producers to consumers.

* **Factors affecting length of marketing channels in agricultural marketing**

Marketing channels for agricultural products vary from product to product country to country, lot to lot and time to time. For example, the marketing channels for fruits are different from those for food grains. Packagers play a crucial role in the marketing of fruits. The level of the development of a society or country determines the final form in which consumers demand the product. For example, consumers in developed countries demand more processed foods in a packed form. Wheat has to be supplied in the form of bread.

* **Marketing channels of distribution**

The course taken in the transfer of the title of a commodity constitutes its channel of distribution. It is the route taken by a product in its passage from its first owner i.e. producer to the last owner, the ultimate consumer.

Important channels of distribution are:

1. Producer or manufacturer – Retailer – Consumer.

2. Producer or manufacturer – Consumer.

3. Producer or manufacturer – Wholesaler – Retailer – Consumer.

4. Producer – Commission agent.

Dear learner, the followings are also highlights of some factors determining choice of channels.

Nature of the product, Price of the product, No. of units of sale, Characteristics of the user & Buyers and their buying units.

* Low priced articles with small units of sale are distributed through retailers.
* High price special items like radios, sewing machines etc are sold by manufactures and then agents.
* Public services like gas, electricity and transport are usually sold directly to the consumer.
	1. **Marketing Margin**

Consumer food expenditure (or food bill) comprise of **marketing** components and **farm** components. Changes in these marketing and farm **‘shares’** of the food bill indicates the trends in **costs, profits** and **services** provided by farmers and food marketing firms as well as the performance of the farm sector compared to the food marketing sector. The proportion of the consumer expenditure that goes to the food marketing firms is referred to as **Marketing Margin**. Generally marketing margin refers to the difference between the price paid and received by a specific marketing agency, such as a single retailer, or by any type of marketing agency such as retailers or assemblers or by any combination of marketing agencies such as the marketing system as a whole.

* **Concept of Marketing Margins**

Marketing margin may be defined in 2 ways: (1) as the differences between consumer retail price and what farmers receive; (2) as the price of marketing services provided.

1. **Price Difference between Two Marketing Stages**: The difference between what the **consumers pays** for food and what the **farmer receives** - i.e. a marketing margin is simply the difference between the **primary** and **derived demand** curves for a particular product. Primary demand is determined by the response of the ultimate consumers and this is usually based on the retail price and quantity purchased by consumers. Primary demand is in some sense a joint demand for all the inputs in the final product. Thus a food product at the retail (i.e. the primary demand) may be divided into two inputs: the **farm-based components** and the **processing-marketing components**. The derived demand for the farm product can be obtained by subtracting the cost of all marketing components from the primary demand (i.e. DD = PD - MC). It can therefore be seen that the farm level function or primary supply (PS) represents the derived demand for the farm component of the final product (DD). Thus the derived demand is based on price-quantity relations that exist either at the point where products leave the farm or at intermediate point, where they are purchased by wholesalers or processors.

The primary supply (PS ) represents the price-quantity relationship at the producer level. The derived supply (DS) at the retail level is derived from the primary supply (PS ) by adding an appropriate margin. Thus, a retail price is established at the point where the primary demand (PD) intersects the derived supply (DS) as shown in the figure.

The farm-level price is

 Price

Retail PR

DS

PS

based on derived demand (DD)

Margin

and primary supply (PS ).

 Farm PF

PD

The difference in the two

DD

prices is the marketing margin or

Quantity

DD

**Absolute Marketing** **Margin**: M= PR - PF

**Absolute Marketing Margin** (AMM): This is

C

PR

 the gap between prices at different marketing

M2

PW

B

levels (farmers, wholesalers, retailers). Thus M1

M3

DR

M1= PR - PF is AMM at farmer level

 PF

DF

DW

A

M2= PR - PW is AMM at retail level

M3= PW - PF  is AMM at wholesale level

Qd

Relative Marketing Margin (RMM) It is the ratio of AMM to price at which the product is bought. RMM = AMM/ PB. The relative margin from farmer to retailer is RMMFR = M1/ PR.

 **Gross Marketing Margin**

This is obtained by multiplying the AMM by the quantity marketed. GMM is represented by area PFAC PR or GMM= Qd (PR - PF ).

**Net Marketing Margin (NMM)**

Here the concept takes account of fixed cost, taxes and subsidies - i.e.

NMM = GMM - FC - T + S

2. **Differences in Prices Due to Cost of Services**: The marketing margin may also be defined as the price or cost marketing services. Marketing costs are the return to factors in the marketing process: profits, wages, interest rents. The marketing services include items such as assembly, processing, transportation and retailing. These services are the time, place, form utilities provided by the marketing system. That is, the marketing margin is the price of all utility added by marketing firms, and this price includes marketing firm’s **expense**s and **profits**. The supply relation for these marketing services is defined in terms of the marginal cost curve for the services, which in turn depends on input prices. However, marketing services also have demand relation. A marketing margin will thus depend on the particular demand and supply relations for the services, and in this regard, changes in margins may be the result of shits in the supply or demand relations for services as shown in the figure below.

The demand curve D is the

S2

 Margin

market demand for services; the supply

 M2

S1

for services are S1 and S2. As a result of

M1

higher input prices, or service prices,

marketing margins will increase from

 D

M1 to M2 and quantity of services purchase

 Q1

 Q2

by consumers will decrease from Q1 to Q2.

Quantity of services/unit time

Production cost has fallen, while marketing costs have increased over the past1/4 century due to:

1. Production is more specialized in location - fall in production Cost but increases transport cost.

1. Away from home eating increases marketing cost.

**Marketing margin of a Middleman:** There alternative measures may be used. The three alternative measures which may be used in estimating market margins are.

(a) Absolute margin of ith middlemen (Ami) = PRi (PPi + Cmi)

(b) Percentage margin of ith middlemen (Pmi) = PRi - (PPi + Cmi) X 100

 PRi

 (c) Mark-up of ith middleman (M2) = PRi - (PPi + Cmi) X 100

 Ppi

Where,

PRi = Total value of receipts per unit (sale price)

Ppi = Purchase value of goods per unit (purchase price)

Cmi = Cost incurred on marketing per unit.

The margin includes profit to the middlemen and returns to storage, interest on capital, overheads and establishment expenditure.

Example **Table; - Price of Honey in the market channel**

**Market chain participants** **selling price**

Producers’ price --------------------------------------------------3.26br/kg

Rural assemblers price ------------------------------------------4.5br/kg

Wholesalers’ price -----------------------------------------------5br/kg

Retailers’ price ----------------------------------------------------6 br/kg

Consumers’ price -------------------------------------------------6br/kg

GMMRA= Assembler price-producer pricex100

 Consumer price

 = 4.5-3.26 x 100 =21%

 6

GMMw= Wholesaler price – Assemler price x100

 Consumer price

 = 5-4.5 x 100

 6

 = 8%

GMMr = Retailers price-wholesalers price x 100

 Consumers’ price

 = 6-5 x 100

 6

 = 17%

Total Gross marketing margin= GMMra+GMMw +GMMr=21%+8%+17%=46%

Gross marketing margin of producers ( GMMp) =100%-46%= 54%

 So from the above calculation, it is clear that 21%, 8%,17% and 54% of the final consumers price is shared by rural assemblers, wholesalers, retailers and producers respectively.

Dear learner, however it is evident that market participants in a given market chain do not only get profit from the transaction. They also incur a cost in the marketing activities. The most important marketing costs which could possibly be incurred by the different market participants in a market chain can be described as follows.

* 1. **Marketing costs**

The movement of products from the producers to the ultimate consumers involves costs which are called marketing costs. These costs vary with the channels through which a particular commodity passes through.

Eg: - Cost of packing, transport, weighting, loading, unloading, losses and spoilages.

* **Objectives of Studying Marketing Costs:**

1. To ascertain which intermediaries are involved between producer and consumer.

2. To ascertain the total cost of marketing process of commodity.

3. To compare the price paid by the consumer with the price received by the producer.

4. To see whether there is any alternative to reduce the cost of marketing.

* **Reasons for High Marketing Costs:**

Dear learner, these are among the major reasons contributing for high marketing cost:

1. High transportation costs

2. Consumption pattern – Bulk transport to deficit areas.

3. Lack of storage facilities.

4. Bulkiness of the produce.

5. Volume of the products handled.

6. Absence of facilities for grading.

7. Perishable nature of the produce.

8. Costly and inadequate finance.

9. Seasonal supply.

10. Unfair trade practices.

11. Business losses.

12. Production in anticipation of demand and high prices.

13. Cost of risk.

14. Sales service.

* **Ways of reducing marketing costs of farm products**

1. Increased efficiency in a wide range of activities between produces and consumers such as increasing the volume of business, improved handling methods in pre-packing, storage and transportation, adopting new managerial techniques and changes in marketing practices such as value addition, retailing etc.

2. Reducing profits in marketing at various stages.

3. Reducing the risks adopting hedging.

4. Improvements in marketing intelligence.

5. Increasing the competition in marketing of farm products.

**A) Packaging costs**:

Most produce needs packaging. Exceptions are generally larger fruits and vegetables such as pumpkins and water melons which may be transported in bulk. Leafy vegetables, such as cabbages, are also often transported in bulk. Here the outer leaves themselves act as a form of packaging by protecting the inner leaves. There is no packaging cost but it should be remembered that the outer leaves are often thrown away before sale and thus there is a cost in terms of product loss.

Packaging serves three basic purposes. Firstly, it provides a convenient way of handling and transporting produce. Costs would certainly be much higher if everything had to be carried and moved without any form of packaging. Secondly, it provides protection for the produce. The efforts which are continually being made to improve bulk packaging are designed mainly to improve the protection offered rather than to increase the convenience of the packaging from a handling point of view. Finally, packaging can be used to divide the produce into convenient units for retail sale and to make the produce more attractive to the consumer, thus increasing the price at which it can be sold. The more sophisticated the packaging, the greater the cost.

 **Calculating packaging costs**

Assume that oranges are packed **20 kg** at a time in wooden boxes which, with occasional repairs, can be used for **10 trips**. A box costs $10, repairs and cleaning during its life costs **$2** and each time transporting back the empty box to the producing area costs **$1**.

Then the packaging cost per trip is...

**[(original cost + repairs) ÷ no. of trips] + transport when empty** or

**($10 + $2) ÷ 10 trips + $1** = $2.20 per 20 kg and

$2.20 ÷ **20 kg** = $0.11 per kg

**B. Transport costs**

Transport costs are incurred by farmers when they take their produce to the market and by traders as they move the produce down the marketing chain to the consumer. Sometimes transport costs are very obvious because they involve the direct payment by a farmer or trader to a truck owner or, in some cases, boat owner on a per piece basis. In other cases such costs are less direct, for example when the trader, or even the farmer, owns and operates his own vehicle.

 **Calculating transport costs**

Assume that there are **40 m3** of space available in the truck to be used and that it costs **$500** to hire the truck. A container of **0.2 m3** holds **8 kg** of tomatoes and a container of **0.4 m3** holds **10 kg** of green peppers.

Then the transport cost for **tomatoes** per container and per kilogram is...

**$500 ÷ (40 m3 ÷ 0.2 m3)** = $2.50 per container

And $2.50 ÷ **8 kg** = $0.3125 per kilogram

While the transport cost for **green peppers** per container and per kilogram is...

**$500 ÷ (40 m3 ÷ 0.4 m3)** = $5.00 per container and $5.00 ÷ **10 kg** = $0.50 per kilogram

**C. Product losses**

If a trader buys one kilogram of produce from a farmer, how much of that one kilogram will he actually end up selling? And what will be the average price of what he sells? Post-harvest losses of produce, particularly fresh produce, can be quite considerable, both in terms of quantity and quality and considerably affect the selling price.

**Calculating the cost of product losses**

Assume that, at **10 percent** loss levels, **1 kg** of tomatoes purchased by the trader from the farmer results in **900 grams** (0.9 kg.) available for sale to consumers. The trader buys tomatoes from the farmer at **$5 per kilogram** and marketing costs are $2 per kilogram for the tomatoes originally purchased. The selling price of tomatoes is **$8 per kilogram**.

Then the costs are...

**1 kg** purchased at **$5 per kg** = $5.00
**1 kg** packed and transported at **$2 per kg** = 2.00

Total Costs = $7.00
Sales Revenue or **$8** x 0.9 kg = 7.20
Thus the margin to the trader = $0.20

Below is an example of the more usual **and wrong**, method of calculation.

**1 kg** purchased at **$5 per kg** = $5.00
**1 kg** packed and transported at **$2 per kg** = 2.00
**10 percent** losses or **$5** x 0.1 = 0.50
Total Costs = $7.50
Sales Revenue or **$8** x 1 kg = 8.00
Thus the margin to the trader = $0.50

The second calculation is clearly **wrong** because here the trader is seen to be obtaining revenue from produce which has already been "lost".

**D. Storage costs**

Storage is carried out in order to extend the period of availability of a crop to a consumer. In the case of staple food crops long-term storage is, of course, essential. The harvest period may be just a few months but the staple has to be consumed throughout the year. Storage can be carried out by the farmer, the trader (or marketing board) or by the consumer. With regard to more perishable crops, storage can be used to extend what is often every short period of availability.

**Calculating storage costs**

Assume that a warehouse is hired for **120 days** of the year at a total cost of **$600** and that the weighted average contents are **250 bags** of potatoes.

Then the storage cost is...

**$600 ÷ 120 days** = $5.00 per day
$5 ÷ **250 bags** = $0.02 per bag/day

**Calculating storage costs over time**

Assume that a trader buys potatoes at **$10 per bag** and keeps them in store for **4 months**. To do this he has to borrow money at **12 percent per year**.

Then the cost of bank interest is...**$10 x 0.04 (12% p.a. over 4 months)** = $0.40 per bag

Thus a realistic calculation of storage costs per bag for our consignment of potatoes is...

Storage charge for 120 days at $0.02 per day = $2.40
Interest charge of $0.40 per bag = 0.40
Total cost per bag = $2.80

**E. Processing costs**

The transformation of a product from one form to another clearly involves costs associated with the operation of the processing facility. In calculating marketing costs, however, we need to consider two other important aspects of processing costs. Firstly, as with product losses, one kilogram of product purchased from the farmer cannot be compared with one kilogram of processed product sold to the consumer. We therefore need to ask, "how much will be sold to the consumer if one kilogram is bought from the farmer?" Secondly, there may be a by-product as a result of the processing and this by-product can often be sold. The value of the by-product must therefore be included in the calculations.

 **Calculating processing costs**

Assume that a rice milling operation converts paddy at the rate of **70 percent** (0.7) and has saleable by-products equal to **25 percent** of the paddy weight. Processing costs per kilogram of paddy have been calculated at **$0.20 per kilogram** on the basis of the mill's total annual costs divided by the number of kilograms of paddy processed. The buying price of the paddy was **$1.50 per kilogram** and the by-products have a value of **$0.50 per kilogram**.

Then the processing cost per kilogram of paddy is...

One kilogram of paddy purchased = $1.50
Processing costs or **1 kg x $0.20** = 0.20
Total Costs = $1.70
Less the by-product revenue of **1 kg x 0.25 x $0.50** = 0.12

Break even selling price per kilogram of paddy = $1.58

Thus the break even selling price per kilogram of milled rice is $1.58 ÷ **0.7** = $2.25

It should be clear that calculation of marketing costs won’t be easy as it is done in the above. There can be many intangible and other costs which can’t be easily estimated. So inclusion of these cost values in the gross marketing margin to calculate the net margin will be a tedious work and may possibly result in inaccurate net margin values. So Gross margins are usually considered for evaluating the benefit of the participants in the market chain.

# CHAPTER FIVE

# Livestock and livestock product price decision

All of the decisions made with respect to the elements of the marketing mix are of critical importance and pricing is one of the decisions as to what price to ask for the product or service. The task of pricing is reiterative because it takes place within a dynamic environment: shifting cost structures affect profitability, new competitors and new products alter the competitive balance, changing consumer tastes and disposable incomes modify established patterns of consumption. This being the case, an organization must not only continually reassess its prices, but also the processes and methods it employs in arriving at these prices.

Perhaps a logical starting point for an organization is to clearly articulate what objectives it seeks to achieve through its pricing policies and then to evaluate the factors likely to impinge upon the strategies which it seeks to adopt in pursuit of those objectives. Thus, the broader objective(s) of a firm make the pricing strategy.

Enterprises have a hierarchy of objectives. At the apex of this hierarchy are the corporate objectives and it is from this that the organization’s marketing objectives are derived. Price is an element of the marketing mix, and so pricing objectives are defined in terms of their role within the marketing mix strategy.

There are different strategies of setting prices. The different strategies can be categorized under two basic approaches: Cost-oriented and Demand-oriented price setting. In general determinations of price require information on various aspects of the firm and external factors. Figure 4.1 summarizes the key factors that influence price setting.

Pricing objective

Price flexibility

Discounts and allowances

Markup chain in channels

Legal environment

Geographic pricing terms

Price of other products in the line

Demand

Cost

Competition

 **Figure 1.4 key factors that influence price setting**

**Pricing Objectives**

Dear learners, to decide the pricing strategy of a firm; it is important to answer what objective the pricing strategy should meet. In addition to those discussed before, there are various objectives.

Dear learners, what happens when companies want to maximize profit? Many companies try to set a price that will maximize current profits. They estimate the demand and costs associated with alternative prices and choose the price that produces maximum current profit, cash flow or rate of return on investment. This strategy assumes that the firm has knowledge of its demand and cost functions; in reality these are difficult to estimate. Some companies want to maximize their market share. They believe that a higher sales volume will lead to lower unit costs and higher long-run profit. They set the lowest price, assuming the market is price sensitive.

Whilst these pricing objectives vary from firm to firm, they can be classified into six major groups: (1) profitability, (2) volume, (3) competition, (4) prestige, (5) strategic and (6) relationship objectives. The way in which each of these objectives is expressed can take different forms as figure 5.1 illustrates.

**Profitability objectives**

Commercial enterprises, and their management, are judged by their ability to produce acceptable profits. These profits may be measured in monetary values and/or as a percentage of sales and/or as a percentage of total capital employed. In addition to maximizing the profit of the firm as a whole, the objective can further be considered in terms of the profit level from each unit sold of a product or product line.

**Target return on investment** (TROI) goals are common in commerce and these can be either short or long run goals, stated as profit as a percentage of either sales or assets. This is a cost-oriented approach to pricing decisions. The targets set will depend very much upon the economy within which the organization operates.

**Maximizing revenues:** it is an objective of getting the maximum possible revenue. When it is difficult to calculate cost of each item produced or sold (e.g. when most costs are indirect and/or are shared by different products) marketing managers often seek to maximize revenues when setting prices. They do so because they need only to estimate the patterns of demand and they believe that if current revenues are maximized then, in the long run, profits will be maximized.

Hence, the objective of the firm is to maximize the profits, by maximizing sales revenue, of the firm as a whole given its direct and indirect costs. When a firm’s fixed costs constitute larger proportion of the total production cost, maximizing revenue is virtually equivalent with maximizing profits.

**Volume objectives**

On occasion, the pricing decisions of managers have more to do with sales maximization than profit maximization. In these cases, organizations set a minimum acceptable profit level and then set out to maximize sales subjected to this profit constraint. The difference between this objective and the revenue maximization objective mentioned above is that here in the volume objective, the main objective of the firm is to maximize just its sales revenue given a certain minimum acceptable profit. The firm is, here, committed to sacrifice some profits in order to achieve higher sales volume. Firms usually follow such strategic objective for two main reasons. If a firm achieves higher market share relative to other rival firms, it will have dominant power in the industry and hence can enjoy monopoly power in the future. Some farsighted firms intentionally compromise short-term profits for long-term profits. Moreover, there is frequently a positive relationship between high market share and profitability since the additional volumes help lower unit production costs.

**Competitive objectives**

As with any other marketing decisions, pricing decisions must take into account the current behavior of competitors and seek to anticipate the future behavior of those competitors. In particular, a company will wish to anticipate competitors' likely reactions if the pricing strategies and tactics it is considering are actually implemented.

**Going-rate pricing:** Competing firms will sometimes set out to match the industry leader's prices. The net result is to take the emphasis away from price competition and refocus competition on to other elements of the marketing mix. Although pricing is an effective tool for gaining a differential advantage over competitors, a price move is easily imitated and mostly leads to retaliatory action. In certain cases, if the competing firms in a market allow pricing to be the chief basis of competition, the profitability of the whole industry can suffer. Competitors may attempt to promote stable prices by focusing upon product/service strategies, promotion and distribution, i.e. the non-price elements of the marketing mix. In this case, the objective of firms is to avoid price competition which may lead to price-war.

**Anti-competitive pricing** (sometimes termed as limit pricing)**:** On occasion, a firm will price its products with a view to discouraging competitors from entering the market or to force them out of the market. This is done by maintaining relatively low prices and profit margins. The extent to which this sort of pricing can be practiced depends upon the firm's own return-on-investment requirements and the vigor with which anti-competitive actions are policed within a country. Such pricing can be effective if the firm has some monopoly power gained through cost efficiency. If the firm’s long run average cost of production is sufficiently low, it can exercise limit pricing over a weak firm or new entrants. Such strategy can chiefly be used by decreasing cost industry or by a firm enjoying substantial economies of scale. As opposed to the above, this pricing strategy is targeted to gain market power.

**Prestige objectives**

Prestige objectives are unrelated to profitability or volume objectives. These involve establishing relatively high prices to develop and maintain an image of quality and exclusiveness that appeals to status-conscious consumers. Such objectives reflect recognition of the role of price in creating the image of an organization and its products or services. Such pricing is mostly exercise in service firms like hotels. Electronics and automobiles that have well accepted brands usually set their price high just to maintain an image of superior quality. The quality of the product may not actually be superior in real sense; but firms, by making some ‘fancied’ differentiation, attempt to convince consumers that the product is different.

Dear learners, some consumers feel inferior if the price of a product is lower. Especially, in such services as hotels, restaurants, etc, consumers would feel superior when they pay higher prices for the same service that is being delivered at lower price. Some people in a society want to identify themselves with a higher social class and they will be willing to pay higher price for the sake of attaining the status. Firms, knowing such behaviors of some consumers, try to form the social class through prestige pricing strategy. You may pay higher price in a hotel, for the same brand beer – say, St. George – than you pay for it in other hotels having comparable service.

**Strategic marketing objectives**

**Price stabilization:** The objective of stabilizing prices is met in the same way as that of removing price as the basis of competition. That is, the company will seek to maintain its own prices at or around those of competitors. However, the aim is not to negate price as a possible marketing advantage, but to narrow the range of price differentials and fluctuations.

**Supporting other products:** Pricing decisions are often focused upon the aim of maximizing total profits rather than maximizing profits obtained from any single product within the portfolio. To this end, some products may be designated as loss leaders whereby their price is set at a level that produces low or even negative returns in order to improve the sales and profitability of others within the range. Thus, for instance, a manufacturer of crop protection products may sell a knapsack sprayer at or below cost in an attempt to stimulate sales of the high-margin chemicals which it is designed to apply. Especially, when a firm produces two complementary products, it can stimulate the sales of one product by lowering the price of the complement in a way it maximizes the overall profits of the firm. Such strategic behavior will be effective if the firm has some monopoly power in one of the complements and faces high degree of competitions in the other complement. The firm can lower the price of that product in which it is facing stiff competition and compensate the loss by charging higher price for that product in which the firm has monopoly power.

**Maintaining cash flow:** Many businesses fail not so much because there is an inadequate demand for their products and services, but due to cash outflows running ahead of cash inflows. It follows that the maintenance of a sound cash flow position is an important management objective. Much of a company's trade will be on the basis of credit rather than cash sales. The pricing mechanism can be used to manage cash flow. Prices can be structured in such a way that customers are encouraged either to pay cash or to repay credit earlier than they might otherwise do.

**Target markets:** The sensitivity of buyers to prices can vary across different market segments. Some consumers will view products as commodities and therefore purchase mainly, or wholly, on price. Others will perceive differences between competing brands and will perhaps make their choice on the basis of characteristics such as quality, freshness and convenience rather than on price.

Prospective buyers also differ in their perceptions of the actual price which they are being asked to pay. Some farmers, for instance, will focus on the retail price of a piece of agricultural equipment when considering a purchase. Others will take into account the credit terms available on the item. Yet others will calculate the trade-in value for used equipment that one dealer is offering in competition with another dealer.

**Relationship marketing**

**Channel of distribution members:** The interests of all participants in the channel of distribution for the organization’s products have to be taken into consideration when making pricing decisions. By developing pricing policies and structures which assist intermediaries to achieve their own profit objectives, an organization is better able to retain the loyalty of channel members. Where there is intense competition for distributive outlets it is the organization which proves most knowledgeable and sensitive about the needs of intermediaries that will fare best.

**Suppliers:** Just as the organization must take account of the interests of its distributors, so it must be concerned about the welfare of suppliers. This producer sees its supplier as an extension of its own business.

**The general public:** The general public has an interest in the activities of commercial organizations even if they do not buy or use the organizations’ products or services. The public will, for instance, be concerned about the state of business ethics within an organization and with issues such as the impact that an organization’s activities have on the environment, the extent to which the organization contributes to the local community (e.g. charitable works and contributions), the manner in which it deals with the complaints and concerns of the community and the extent of its profits. Companies have to be careful in the way they report prices and profits since these can easily be perceived as being excessive.

**Government:** Governments often take a keen interest in the prices charged, particularly if the product is a staple food. This is true even where organizations have been freed from government control over prices because the price of basic food items is a politically sensitive issue in most countries. The government will wish to be seen to be vigilant in preventing profiteering at the expense of the common people. The situation can be particularly difficult for organizations such as agricultural marketing firms who after years of suppressed prices find it necessary to raise prices substantially to become commercially viable.

**Cost - oriented Pricing Method**

**Markup Pricing**

Some firms - including most retailers and wholesalers - set prices by using a markup - a dollar amount added to the cost of products to get the selling price. For example consider that a retail shop buys a kilo of sugar for 4.50 Birr from Metahara Sugar Factory. To make a profit, the retail shop obviously must sell the sugar for more than 4.50 Birr. If it adds 50 cents to cover operating expenses and provide a profit, we say that the retail shop is marking up the item 50 cents.

Markups, however, usually are stated as a percentages rather than dollar or Birr amounts. Markup means percentage of selling price that is added to the cost to get the selling price. Thus, the markup for the above item can be calculated as:

Markup 

For the above example;

 Selling price (revenue) = 5.00 Birr, Buying price (cost) = 4.50 Birr

 Markup =  =  = 10 %

**Deciding the level of the markup**

Many middlemen select a standard markup percent and then apply it to all their products. This makes pricing easier. Sometimes if the firm is selling a number of products, spending time to find the best price for each item in stock might not pay. The easiest way is to develop a standard markup which is sufficient to cover the firm’s operating expenses and provide a reasonable profit. But what is the basis for setting this standard markup?

A standard markup is related to gross margin - it is usually set close to the firm’s gross margin. It is also important to study the markups at different levels in the marketing channel. Different firms in a channel often use different markups.

A markup chain - the sequence of markups firms use at different levels in a channel - determines the price structure in the whole channel.

For example, the farmer’s selling price of wheat grain becomes the cost for a flourmill firm. The flourmill’s selling price of wheat flour becomes a baker’s cost. The Baker’s selling price of bread to a retail shops becomes the retailer’s cost. And this cost plus a retail markup becomes the retail selling price of bread to final consumer. Each markup should cover the costs of running the business and leave a profit.

|  |  |  |  |
| --- | --- | --- | --- |
| Selling price to flourmill  120 Birr = 100% | Selling price of one quintal of wheat flour  150 Birr = 100% | Selling price of bread that uses quintal of flour 200 Birr = 100% | Selling price  250 Birr = 100% |
|  Markup - 15 Birr = 12.5 % |  Markups - 30Birr = 20% | Markup - 50 Birr = 25%  | Markup - 50 Birr = 20% |
| Cost of producing one quintal of wheat 105 Birr = 87.5% | Cost of one quintal of wheat 120 Birr = 80% |  Cost of one quintal of flour 150 Birr = 75% | Retailer cost of bread 200 Birr = 80% |
| Farmer flourmill Baker Retailer |

**Markups and Profits**

Some people including many traditional retailers think high markups means big profits. Often this is not true. A high markup may result in a price that is too high - a price at which few customers will buy. And you cannot earn much if you do not sell much - no matter how high your markup. But many retailers and wholesalers seem more concerned with the size of their markup on a single item than with their total profit. And their high markups may lead to low profit - or even losses.

Some retailers and wholesalers, however, try to speed turnover to increase profit even if this means reducing their markups. They realize that a business runs up costs over time. If they can sell a much greater amount in the same time period, they may be able to take a lower markup and still earn higher profits at the end of the period.

An important idea here is the stock turn rate - the number of times the average inventory is sold in a year. The higher the stock turn rate the higher will be the total profits at the end of the year even if the markup may be lower.

For example a firm (Firm A) that sells a 100,000 Birr value of items with stock-turn rate of say 2 - two times a year – requires 50,000 Birr worth of inventory. Another equivalent firm (Firm B) with this 50,000 Birr may attain a stock-turn rate of say 5, if that firm reduces its markups. This means the later firm can sell a 250000Birr value per annum. Assume further firm A has a markup (gross profit) of 20 cents from each one Birr sales revenue while firm B has 15 cents. The total gross profit of firm A will then be 20,000 Birr (0.2x100, 000) per annum but it will be 37500 Birr per annum for that of firm B. Thus, by reducing markups and hence prices of products, it is possible to maximize sales revenue and be able to increase total profits.

Reducing markups to increase profit works especially if reducing price increases percentage sales by more than the reduced percentage price. In other words, total revenue increases when price declines if the price elasticity of demand of the item under consideration is elastic. That is the percentage increase in quantity sold is greater than the percentage decline in price. In the above example, firm B by reducing price by 25% (from 20 cents to 15 cents) is able to increase its sales revenue by 150% (from 100,000 Birr to 250,000 Birr revenue). The relationship between price elasticity and total revenue will be dealt in the later sections.

**Average cost Pricing**

Average cost pricing means adding a reasonable markup to the average cost of a product. A manager usually finds the average cost per unit by studying past records. Dividing the total cost for the last year by all the units produced and sold in that period gives an estimate of the average cost (the cost per unit output) for the next year.

Total fixed cost - is the sum of those costs that are fixed in total no matter how much is produced. Among these fixed costs are rent, depreciation, managers’ salaries, property taxes and insurance. Such costs stay the same even if production stops temporarily. Fixed costs do not vary with the amounts of output.

Total variable cost - on the other hand is the sum of those changing expenses that are closely related to output - expenses for raw materials, packaging materials, labor costs, sales communications, etc. At zero output level, total variable cost is zero. As output increases, so do variable costs.

Total cost - is the sum of total fixed and total variable costs. Changes in total cost depend on variations in total variable cost since total fixed cost stays the same. The pricing manager usually is more interested in cost per unit than total cost because prices are usually quoted per unit.

For example a company incurred the following costs last year.

 Total Fixed overhead expenses (FC) -------------- 30000

 Total Labor and material expenses (VC) --------- 32000

 Total costs (TC) -------------------- 62000

Average cost (per unit cost) - is obtained by dividing total cost by the related quantity (that is the quantity that causes the total cost).

 AC = 

 AC - average cost

 TC - total cost (fixed cost plus variable cost)

Average fixed cost (per unit fixed cost) - is obtained by dividing total fixed cost by the related quantity.



Average variable cost (per unit variable cost) - is obtained by dividing total variable cost by the related quantity.



If the company produced 40,000 items in that time period the average cost is 62,000 divided by 40,000 units or 1.55 Birr per unit.

 Q - total quantity sold = 40000

 AC =  or 

To get the price, the firm decides how much profit per unit to add to the average cost per unit. If the firm considers 45 cents a reasonable profit for each unit, it sets its price at 2.00 Birr. Accordingly if the firm sells, say, 40000 units in the next period too the total profit will be 18000 Birr.

Average cost pricing is simple. But it can also be dangerous. It is easy to lose money with average cost pricing. For instance in the above example if the firm sells only 20000 Birr, the average cost can be calculated as follows:

 Total Fixed cost --------------------------------- 30000

 Total Variable Cost ------------------------------ 16000

Total cost ------------------------------------------ 46000

 Average cost will then be , AC = 

It the firm continues to sell its product for 2.00 Birr assuming that the average cost is just 1.55 Birr per unit, the firm will lose 30 cents from each unit sold and will incur a total lose of 6,000 Birr.

The basic problem with the average cost pricing approach is that it does not consider cost variations at different levels of output. But, average costs may decline or increase as the level of output increases. Therefore, it is important to develop a better understanding of the different types of costs a marketing manager should consider when setting a price. If a firm’s marketing department develops the cost function of the firm, it can efficiently use Average Cost Pricing.

**Break-even Pricing**

Another method considered in setting price is break-even pricing. This pricing system is sometimes called target profit pricing. Break-even analysis evaluates whether the firm will be able to break-even - that is cover all its costs - with a particular price. This is important because a firm must cover all costs in the long run or there is not much point being in business. Break-even point is the level of quantity at which the firm’s total cost will just be equal to its total revenue. In other words, it is that quantity that makes profits zero. Break- even pricing is setting price to break even on the costs of making and marketing a product, or setting price to a make a target profit.

As shown in Figure 1.5, the TFC is constant at 20,000 Birr irrespective of the level of output i.e., whether the firm produces nothing or produces 100 tons; the total fixed cost remains the same. It is horizontal line and will remain so as long as the firm does not increase or reduce its scale or size.

Total cost and total revenue (in thousands)

80

30

45

Quantity of output

TR

TC

Loss area

Profit area

Break – even point

20

10

TFC

**Figure 1.5 Break – even point**

Total cost, however, varies with the level of output. When the output is zero, variable cost is zero and total cost is equal to total fixed cost. But at any other output levels, the total cost grows with the level of output. In the above example, the total cost is assumed to be straight line. That is the total cost increases by a constant amount for each additional unit of output which can be measured by the slope of the total cost curve.

The total revenue (TR) curve is also assumed to be straight line and it will be so in reality as long as the firm sells its product at constant price. Thus, the total revenue curve is upward slopping and is straight line. The total revenue curve will be more flat if the selling price is lower and will be steeper when the selling price rises. The difference between the total revenue and total cost at a given quantity is the profit or loss. If total cost lies above total revenue curve, the firm incurs a loss. The firm will make a profit if the total revenue lies above the total cost curve. However, the firm would be at break – even point, if it could sell 80 tones. At this point TR just equals TC. It is a point where TR curve intersects TC curve. The point gives us the breakeven TC, TR and quantity of output. The breakeven price can be calculated by dividing TR by that breakeven quantity.

The graphical presentation of break-even point is helpful to understand the idea. How can we compute break-even point? The break-even point, in units can be found by dividing total fixed costs (TFC) by the fixed cost contribution per unit the assumed selling price minus the average variable cost (AVC).

The derivation break-even point is as follows:

Breakeven point is the point where Total Revenue (TR) is just equal to total cost (TC).

 TR = TC or ; (1)

It is a point where the difference between TC and TR is zero.

TR – TC = O

Total revenue is equal to quantity of output sold (Q) times price of output (PQ)

TR =  (2)

Total cost is the summation of Total Fixed Cost and Total Variable Cost

TC = TFC + TVC (3)

As mentioned previously Average Variable Cost (AVC) is total variable divided by total output.



Thus, TVC can be expressed as

 TVC =  (4)

Substituting equation (4) in equation (3), the total cost will be expressed as

 TC = TFC + AVC x Q (5)

Substituting equation (5) in to equation (1) gives the condition at break-even

 TR = TFC + AVC x Q

Substituting  in place of TR

 

Solving for Q to obtain break-even quantity

 PQ x Q – AVC x Q = TFC

 Q (PQ – AVC) = TFC

 

Qb is break-even quantity which is the ratio of total fixed cost to the contribution of fixed cost per unit.

 (PQ – AVC) is the per unit contribution of the fixed cost

It is the unit contribution of fixed cost because if the item is sold at price (PQ) and incurred a unit variable cost (AVC), the difference is what is left after the unit variable cost is paid which is the unit contribution of the fixed cost. When we divide this per unit contribution of the fixed cost into the total fixed costs that must be covered, we have the break-even quantity.

To illustrate the formula, let us assume that the average variable cost per unit is 80 cents and the price per unit is 1.2 Birr. If the total fixed cost is 30,000 Birr, the break-even output will then be:

 

 

From this you can see that if the firm sells 75000 units, it will exactly cover all its fixed and variable costs. If it sells even one more unit, it will begin to show a profit - in this case, 40 cents per units - because all the fixed costs are already covered and the part of revenue formerly going to cover fixed costs is now all profit.

If we multiply the break even quantity - 75000 units - by the unit selling price (1.20 Birr), we get 90000 Birr - the break-even revenue or cost. The importance of computing the break-even quantity is that we can accept the proposed price if it is possible to sell sufficiently large quantity that exceeds the break-even quantity. This is because, as mentioned above, any more sells beyond the break-even quantity increases profit (assuming both the TR and the TC curves are linear). If the break-even quantity, however is above the existing demand the manager must reject the proposed price because any less realized sells below the break-even quantity incur a loss. It is often useful therefore, to compute break-even quantity for each of several possible prices and compare the quantity for each price to the likely demand at the price.

So far in our discussion of break-even point, we have focused on the quantity at which total revenue equals total cost - where profit is zero. We can also vary this approach to see what quantity is required to earn a certain level of profit. The analysis is the same as described above for the break-even quantity, but the amount of target profit is added to the total fixed cost. Then, when we divide the total fixed cost plus profit figure by the contribution from each unit, we get the quantity that will earn the target profit.

Let us assume the firm sets a target profit of П. Then

 

In the previous sections, we have 

 

 

 

 

If in the previous example, the firm sets a target profit of say 10,000 Birr, the quantity that will have to be sold to meet the target profit will then be:

 TFC = 30000 Birr

 PQ = 1.20 Birr

 AVC = 0.80 Birr

 

The firm can then assess the market situation to make sure that it is possible to sell 100,000 units at the targeted price of 1.20 Birr to achieve the targeted profit.

**Example**

Suppose a firm incurs an average variable cost of 5 Birr. The total fixed cost is equal to 60,000 Birr. The firm wants to produce output 90,000 units. What price the firm should set to get the targeted profits of 12,000 Birr.



The firm can meet the targeted objective of earning 12,000 Birr if it is able to sell its output at a price of 5.8 Birr. It is important to note here the assumption behind the stated break – even analysis. The analysis presupposes that the firm can sell any quantity at the specified price. That is, it is implicitly assumed that the firm faces a perfectly horizontal demand curve at that particular price. It also assumes that the average variable cost is constant at any particular level of output. In other words, whether the firm sells 10 units or 100,000 units, the average variable cost remains constant at 80 cents.

But in reality, the firm often faces a down-ward sloping demand curve, as opposed to horizontal demand curve. This means, the firm will have to reduce price in order to sell more unit.

Other than constant price as mentioned above, break-even analysis assumes constant average variable cost. In reality, however, as the firm produces and sells more units its average variable cost declines due to improvement in efficiency. And it also increases beyond a certain level as the firm produces and sells relatively large quantity. In any ways, the above constant AVC assumption may not hold in reality. This would take us into another pricing approach.

**Demand – oriented Pricing methods**

Demand oriented approaches for setting prices are based on the *value in use* - how much the customer saves? Many marketers use *value in use* pricing - which means setting prices that will capture some of what customers will save by substituting the firm's product for the one currently being used. The value in use can be measured by the additional productivity or cost saved if the item is a resource.

For instance, the value in use of herbicide can be measured by the cost saved in terms of the labor cost that would be incurred if a farmer used hand-weeding. The labor cost for weeding varies from farmer to farmer in that the opportunity cost of different farmers is different. The herbicide producer has to estimate how much on average each farmer will save by using herbicide and then set a price that makes less expensive for the farmer to buy herbicide than to use hand weeding.

**Leader Pricing**

The other strategy in pricing is leader pricing. Leader pricing means setting some very low prices - real bargains - to get customers in to real stores. The idea is not to sell large quantities of the leader items but to get customers into the store to buy other products. Certain products are picked for their promotion value and priced low-but above cost. In food stores the leader prices are the "specials" that are advertised regularly to give an image of low prices. Leader items are usually well-known, widely used items that customers don't stock heavily - milk, butter, eggs, or coffee - but on which they will recognize a real price cut. In other words, leader pricing is normally used with products for which consumers do have a specific reference price.

But sometimes such pricing can erode the profit of the firm if customers buy only the low price leaders. Therefore, managers need to be sure that the selected leader items really lead customers to buy other items.

**Bait pricing**

Bait pricing is setting some very low prices to attract customers-but trying to sell more expensive models or brands once the customer is in the store.

For example, a furniture store may advertise a color TV of 21" for Birr 1600 or less. But once bargain hunters come to the store, salesclerks point out the disadvantages of the low-price TV and try to convince them to trade-up to a better (and more expensive) set. Bait pricing is something like leader pricing. But here the seller doesn't plan to sell many at the low price.

**Discriminatory pricing**

Discriminatory pricing involves the company selling a product/service at two or more prices, where the differences in prices are not based on differences in costs. Discriminatory pricing takes one or several forms: Segmentation pricing, Product-form pricing & Time pricing.

**Psychological pricing**

Psychological pricing means setting prices that have special appeal to target customers. It can take many forms. It is a pricing strategy that considers the psychology of prices not simply the economics; the price is used to say something the product.

**Prestige pricing**

Prestige pricing is setting a rather high price to suggest high quality or high status. Some target customers want the best, so they will buy at a high price. But if the price seems cheap, they worry about quality and don't buy. Prestige pricing is more common for luxury products - such as furs, jewelry and perfume.

It is also common in service industries - where the customer cannot see the product in advance and relies on price to judge its quality.

**Price lining**

Price lining is setting a fewer price levels for a product line and then marking all items at these prices. This approach assumes that they expect to pay for a product. For example most pairs of shoes are priced between 100 and 160 Birr. In price lining, there are only a few prices within this range. Pairs of shoes will not be sold for Birr 100, 101, 102, 103, 104 and so on up to 150. They might be priced at levels - Birr 100, 110, 120, 130, 140 and 150.

**Complementary product pricing**

Complementary product pricing is setting prices on several products as a group. This may lead to one product being priced very low so that the profits from another product will increase and increases the product group’s total profits.

**Product-bundle pricing**

A firm that offers its target market several different products may use product-bundle pricing - setting one price for a set of products. A fruit farm can prepare fruit-bundle which contains a mixture of different fruit types mixed as a bundle of 2 or 3 kilos of - orange, lemon, and other similar types of fruits. This may be suitable even for customers in that they may want some but few amount from each type of fruits.

Price bundling can promote the sales of products consumers might not otherwise buy, but the combined price must be low enough to get them to buy the bundle.

 **Market penetration pricing**

Rather than setting a high market price to skim off small but profitable market segments, some companies use market penetration pricing. They set a low initial price in order to *penetrate* the market quickly and deeply–to attract a large number of buyers quickly and win a large market share. The high sales volume results in falling costs, allowing to cut its price even further.

**Market-skimming prices**

Many companies that invent new products initially set high prices to “skim” revenue layer by layer from the market. Market skimming makes sense only under certain conditions. First, the products quality and image must support its higher price, and enough buyers must want the product at that price. Second, the costs producing a smaller volume cannot be so high that they cancel the advantages of charging more. Finally, competitors must not be able to enter the market easily and undercut the price.

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| --- | --- |
| *Program* | *Animal science* |
| *Course Code* | *AnSc 4152* |
| *Course Title:*  | *Livestock and livestock products and by-products marketing*  |
| *Degree Program* | *BSc in Animal science*  |
| *Module Name* | *Farm Animals Business Management and Extension*  |
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