PRICING DECISIONS

Learning outcomes

At the end of this chapter you will be should be able to:

- Identify the factors influencing pricing decisions
- Discuss the economic pricing model
- Describe the role of cost information in pricing decisions
- Explain the different bases of setting a selling price
- Discuss different pricing policies

1.1 Introduction

A pricing decision is one of the most important decisions that any organization has to make irrespective of the industry, size, ownership, etc. The pricing decision will have a major influence on a firm's bottom line and will impact on both customer and shareholder value. Accounting information, especially cost information, will provide an important input to pricing decisions for;

a) Firms that sell customized products/services or market leaders, who have some discretion in setting prices to decide the prices
b) Firms whose prices are determined by the overall market and supply forces to determine their profitability and identify product mix.

Irrespective of the nature of the products or market conditions the cost information will be important for any type of an organization. The chapter therefore provides special attention to the role that can be played by the cost information. However, the overall pricing decisions of an organization can be determined by the interaction of various factors.

1.2 Factors influencing pricing decisions

There are various factors that govern pricing decisions of an organization. These factors include but not limited to;

- Customer demand
- Competitor actions
- Costs
- Political, technological and social reasons
- Marketing reasons

- Desired return on investment

The intensity of the degree of influence of these factors will depend on the product, time period, market, etc. Some of these factors can be related to external market, and others related to internal constraints. The ultimate pricing decision taken by an organization will reflect the combination of various factors mentioned herein. Hence, arriving at an optimum pricing decision is a challenge for any organisation.

Activity 1.1
Identify real life examples for the above major influences on pricing decisions.

1.3 Economic pricing model

A theoretical solution to the optimum pricing decision is given in economics theory. Accordingly, neo-classical economists provide a theoretical model that will maximize the profits of an organization. As per this model the profits of a firm can be maximized if the price is set to equate the Marginal Revenue (MR) to Marginal Cost (MC). When the MR is greater than MC, the marginal profit is positive and a greater quantity should be produced. Similarly, when the MR is less than MC, marginal profit is negative and a lesser quantity should be produced. When MR is equal to MC, marginal profit is zero and this quantity thus maximize profit of an organization.[*As the calculative aspects of the optimum pricing decision are covered in different course units of the Degree Programme, the chapter does not go into the details of the model. In addition to those course units, you can refer* ***Management and Cost Accounting of Drury, (2007), Chapter 11*** *for further details*]. Despite the theoretical soundness, there are many limitations/criticisms which hinder the practical validity of the model.

These limitations can be grouped into three categories.

- Firstly, the model assumes a firm can gauge its demand curve accurately. Despite the availability of the demand curve at macro (aggregate) levels such as the demand curve for automobiles, rice, etc, estimating the demand curve for an individual firm that produces a variety of products and services is extremely difficult in practice.
- Secondly, the model assumes only price influences the demand. In practice there are many determinants of demand such as competition, packaging, income, advertising,

weather conditions, government policies, consumer preference, etc as outlined in the previous section of this chapter.

- Thirdly, the model assumes that the marginal cost of a product or service can be determined with accuracy. Even after a considerable analysis, only an approximation of the marginal costs can be determined with many limitations/reservations.

Nevertheless, the economic theory stresses the need for the managers to be aware of the price/demand relationships when a pricing decision is taken.

Activity 1.2

Sisira started a printing business, in a small scale, with some of his personal savings after completing his degree in the University of Sri Jayewardenepura. Initially he bought a photocopier machine and printed tutorials. However, when the demand increased he purchased additional machineries and expanded the business. For his regular photocopy business, with a view to maximizing profit, he thought of applying the economic pricing model.

Identify the practical limitations of the application of this theoretical pricing model for Sisira's photocopy business.

1.4 Role of cost information in pricing decisions

As explained in the first section of this chapter, based on the market condition a product or service faces, a firm can be identified as a *price taker* or *price setter*. The firms that have little or no control over the prices of their products or services are price takers. This situation may occur when there are many firms in an industry who produce generic/undistinguishable products. Conversely, when firms have some discretion over setting the selling price of their products and services are price setters/makers. This situation is most likely to occur when firms produce highly customized products or who are market leaders. In practice, firms may be price setters for some products or services and price takers for others.

As outlined in the introduction, cost information is vital for a firm irrespective of whether it is a price taker or setter. For both of these types of firms the time horizon, i.e. long term or short term, determines the cost information that is relevant in decision making. This leads to the identification of four situations.

- Price setter facing short-term decisions
- Price setter facing long-term decisions
- Price taker facing short-term decisions
- Price taker facing long-term decisions

These four situations can be given in the following diagram (refer Figure 8.1).

Figure 1.1: The role of cost information in pricing-market to time horizon

		Market condition	
		Price setter	**Price taker**
Time horizon	**Short term**	Price setter facing short-term decisions	Price taker facing short-term decisions
	Long term	Price setter facing long-term decisions	Price taker facing long-term decisions

Source: Adopted from Drury (2007)

1.4.1 Price setting firm facing short-run pricing decisions

This situation is applied when companies are faced with the opportunity of bidding for ***one time*** special orders in competition with other suppliers. In these circumstances, only the incremental cost of undertaking the order should be taken into account, if there is excess capacity. As most of the resources required to fill the order are already acquired, those costs will not be changed due to a short term decision being evaluated. Hence, the incremental costs which are likely to consist of:

- Extra material costs needed for the order
- Any extra labour in fulfilling the order
- Any extra variable or fixed overhead costs required to complete the order

Any bid for one-off contracts should cover only the short term incremental costs. The following conditions/assumptions are required to apply this pricing method:

- Sufficient unutilized capacity (in terms of all the resources) should be available to fulfill the order. If not the opportunity costs that arise will have to be taken into account.
- The bid price will not affect the future selling prices and the customer is not expected to bring in repeat business.
- The order will utilize the unused capacity for a short period only.

Activity 1.3

Print Board is printing organisation, which was operating under excess capacity. The company used this pricing decision to win a special order from a large customer in a bid to utilize the spare capacity. Attracted by the low price and the quality of the work the customer is now bringing in more orders. Due to these orders the excess capacity is now being utilized leaving the firm with no excess capacity. At the same time, the existing customers have started to question the low price offered to the new customer and seem to have disappointed about the non-recognition of their long standing loyalty.

As the newly appointed management accountants discuss the actions you would take to resolve the issues faced by Print Board.

1.4.2 A price setting firm facing long-run pricing decisions

In this situation, three scenarios are considered:

- Pricing customized products
- Pricing non-customized products
- Pricing non-customized products using target costing

Pricing customized products

An accurate costing system is required since undercosting will result in acceptance of unprofitable business and overcosting in the loss of profitable business. Thus, it is necessary to accurately cost the products or services in the long run ensuring survival. In the long run, firms can adjust the supply of all their resources and therefore a product or a service should cover the costs of all the resources used. Hence, in order to determine the selling price, a full cost/long-run cost should be calculated and a mark-up is added. As the products are customized, cost assignment for pricing should be based on direct cost tracing or cause-and-effect assignments. In this regard, ABC provides a better understanding of cost behaviour for negotiating the price with customers.

Pricing non-customized products

Under this situation pricing decisions involve large volume of a single product/service being sold to many customers. Two approaches can be followed here.

- Use of cost-plus pricing
- Use of demand estimates

The use of cost-plus pricing requires an estimate of sales volume to determine unit cost in order to derive the cost-plus price. As there are many limitations of cost plus pricing, it is preferable to use pricing based on demand, if approximations of demand can be derived.

Pricing non-customized products using target costing

Target costing, which starts from the market to decide the internal costs, is the reverse of cost-plus pricing. In target costing, marketing factors and customer research provide the basis for determining selling price but not the cost. In arriving at the target cost emphasis is placed on a team approach by getting the support of suppliers, distributors, engineers, accountants, production worker, etc. Application of target costing involves four stages.

Stage 1: Determine the target price which customers will be prepared to pay for the product.

Stage 2: Deduct a target profit margin from the target price to determine the target cost.

Stage 3: Estimate the budgeted cost of the product.

Stage 4: If estimated cost exceeds the target cost investigate ways of driving down the estimated cost to the target cost.

Activity 1.4

Tata Ltd decided that the target price of its basic "Tata Nano" model to be Indian Rs. 100,000. Tata Ltd's target return on sales is 15%.

a) Decide the target cost
b) If the estimated cost is Rs. 95,000, how can Tata Ltd reduce the cost? Discuss.

1.4.3 A price taker firm facing short-run product-mix decisions

This situation is applied where opportunities exist for taking on short-term business at a market determined selling price. The cost information required and the conditions applied are same as those specified for a price setter facing short-term pricing decisions. As discussed these conditions are:

- Availability of sufficient unutilised capacity
- Non repeatability of the special order
- Short term duration of the order

If short-term capacity constraints apply, the product mix should be based on maximizing contribution per unit of limiting factor.

1.4.4 A price taker firm facing long-run product-mix decisions

In the long-term a firm can adjust the supply of resources. Therefore, the sales revenue from a product or service should be sufficient to cover all of there sources that are committed to it. Hence, there is a need to undertake periodic profitability analysis to ensure that only profitable products/services are produced and marketed. Such a profitability analysis can be facilitated by ABC.

Activity 1.5

Heavy Solid Ltd usually manufactures a range of standard cement products while accepting long term orders from large industrial customers to meet their exact requirements. There are many other firms that manufacture exactly identical cement products to what Heavy Solid manufactures at competitive prices.

Explain the pricing situations faced by Heavy Solid (highlighting the market condition and time horizon) and describe how he should determine the price of standard cement products and orders from large industrial customers.

1.5 Bases of setting a selling price

From the above discussion it is clear that prices can be set;

- Based on market/demand conditions
- Based on cost

This leads to market/demand based pricing and cost based pricing. Market based pricing can be used by a price taker. Also, it can be used by a price maker as well provided it is possible to estimate the demand. If the demand estimates cannot be determined with accuracy, prices will have to be based on cost. When deciding the price based on cost the following costs can be selected.

- Total cost (Total cost based pricing)
- Variable cost (Variable cost based pricing)
- Activity Based Cost (Activity Cost Based pricing)

Cost based pricing, however, has the following criticisms.

1. It ignores demand.
2. It does not necessarily ensure that total sales revenue will exceed total cost, if the assumed volume to calculate the fixed cost per unit is not achieved.
3. It can lead to wrong decisions if budgeted activity is used to unitize costs.
4. There is circular reasoning - volume estimates are required to estimate unit fixed costs and ultimately price.

1.6 Pricing policies, strategies and bases

As highlighted in the Section 1.4, costs or market conditions can be identified as the basis on which initial prices can be set. The final price selected by a firm will be, however, determined by the *pricing policy/strategy* of a company. In a company’s long-term objectives a pricing policy/strategy should be included as the pricing decisions affect the long-term survival of any profit-oriented enterprise. Using a pricing policy/strategy a company can differentiate itself from its competitors. Further, a company can use a pricing policy/strategy to differentiate among its own brands.

The pricing policy and strategy are two terms that are used quite often interchangeably. Generally, a pricing policy is the way how the prices of products/services are set based on market conditions, costs, demand, and competition. On the other hand, pricing strategy is how pricing is used to achieve the strategic objectives such as cost leadership, differentiation, etc. irrespective of these slight differences, pricing policies and pricing strategies tend to overlap, and hence they are not necessarily mutually exclusive.

Activity 1.6

Asian Paints is the India's largest and Asia's third largest paint company, with a turnover of Indian Rs. 96.32 billion. The company's Sri Lankan subsidiary, Asian Paints Sri Lanka Ltd, many brands that include: Ace & Apex, Ultima, Royale, Permoglaze, etc. (www.asianpaints.com). Discuss how the company uses the pricing policy to differentiate among its own brands.

There can be many pricing policies used by a company depending on its objective. This chapter discusses only two pricing policies viz.

- Price skimming
- Price penetration

Price skimming

This is a policy of charging high prices in order to maximize short-term profitability by spending heavily on advertising and sales promotions to obtain sales. This policy is suitable when; the product is unique, the customers are less price sensitive, the product has a shorter product life cycle, etc.

Penetration pricing

This is a policy of charging low prices in order to obtain sufficient penetration into the market. This pricing policy is suitable when; there are close substitutes available in the market; the customers are price sensitive, there are significant economies of scale, etc.

These pricing policies may vary depending on the different stages of a product's lifecycle.

Activity 1.7

Identify some real life products/service examples under each of the above two pricing policies.

1.7 Summary

This chapter discussed pricing decisions, one of the most important decisions that any organization has to make. The chapter identified various internal and external factors influencing pricing decisions. In this regard, special emphasis was placed on cost information. The chapter also discussed the theoretical optimum pricing model found in neo-classical economics. Further, the ways in which selling prices can be set was analysed by discussing different pricing bases and policies/strategies.

References

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2. Drury, C (2007), *Management and cost accounting*, 6th Ed, Thomson Learning: India.
3. Langfield-Smith K Thorne, H and Hilton, R (2012), *Management accounting-information for creating and managing value*, McGraw Hill; New South Wales.