Lesson 12

Pricing decision and profitability analysis

12.1 Introduction

The purpose of pricing decision and profitability analysis to assist management in planning and controlling the resources of their organisation, and enhancing company's decision making. Organisations that sell products and services that are highly customised or differentiated from each other by special features, or who are market leaders, have some discretion in setting prices. The cost of information that is accumulated and presented is therefore important for pricing decisions.

12.2 Learning Outcomes

- Explain the relevant cost information that should be presented in price setting firms for both short term and long-term decisions.
- Identify and describe three different types of pricing methods.
- Evaluate the target costing approach to pricing.

12.3 Required Readings

Drury, Chapter 10

12.4 Points to Ponder/Takeaways

Target Costing	Target selling price- Target Profit= Target Cost
Cost Plus Method	Cost+ Profit= Selling Price

12.5 Learning materials

Pricing is very important.

•If prices are set too low, profits are insufficient.

•If prices are set too high, sales and profits are both insufficient due to lost sales.

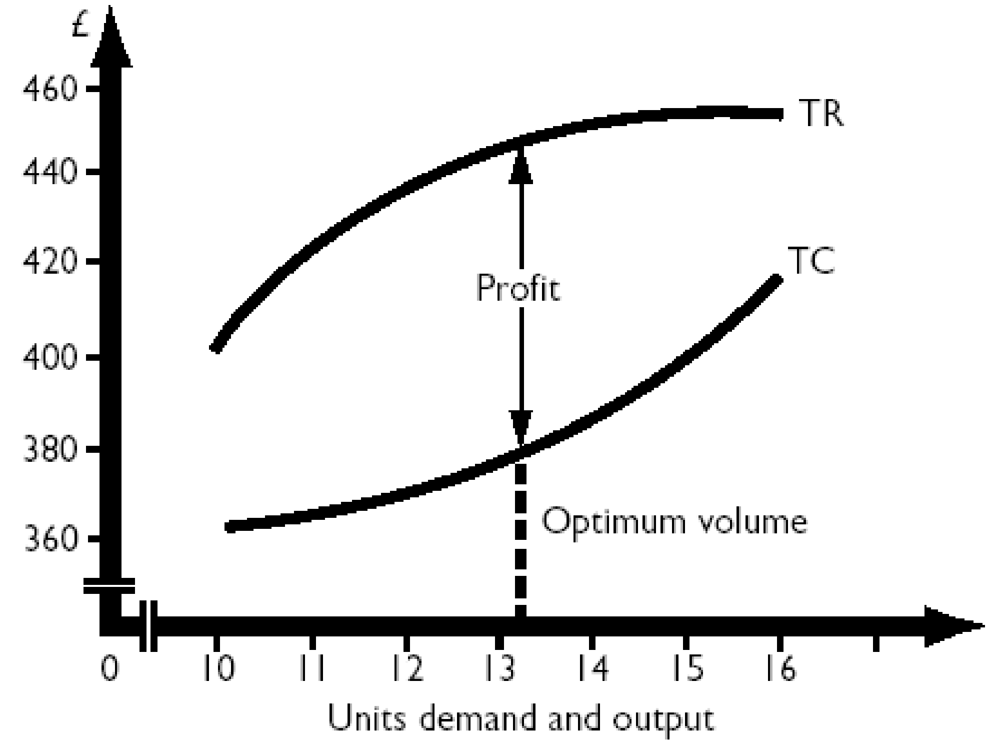
•How should selling prices be set?

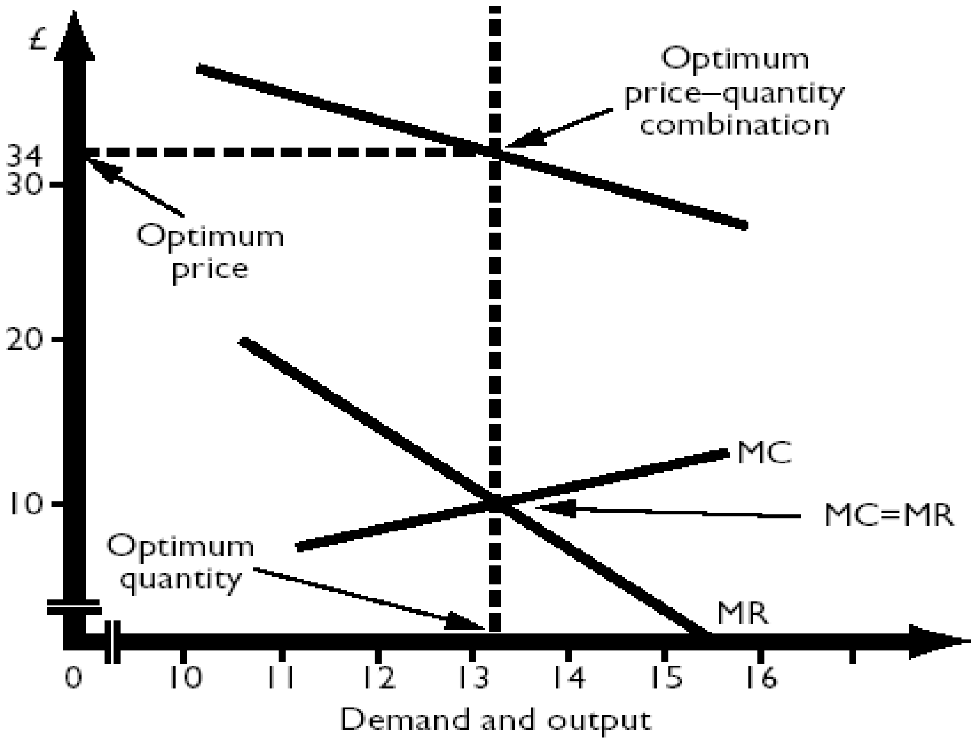
•Is there one best way?

The following slides give the different views of economists, accountants and marketers and then present an integrated approach.

1.Economic of Theory

The optimum selling price is the price at which marginal revenue equals marginal cost.





1.1 Problems with applying economic theory

- Difficult and costly to derive reasonably accurate estimates of demand.
- Difficult to estimate cost functions to determine marginal cost at different output levels for many different products.
- Demand is influenced by other factors besides price.
- Profit maximization assumed – firms may pursue other goals.

1.2 Role of cost information in pricing decisions

• Price takers are those firms that have little control over the prices of their products or services.

• For price takers cost information is of vital importance in deciding on the output and mix of products and services.

• Price setters are those firms that have some discretion over the setting of selling prices for their products or services.

• Cost information is of vital importance to price setters in making pricing decisions.

• Firms may be price setters for some of their products /services and price takes for others.

2.Accountant Point of View

1. A price setting firm facing short-run pricing decisions

• Applies where companies are faced with the opportunity of bidding for one time special orders in competition with other suppliers.

• In this situation only the incremental cost of undertaking the order should be taken into account.

• Given the short-term one-off nature of the opportunity many costs will be non-incremental.

• Bids should be made at prices that exceed the incremental cost and must meet the following conditions:

1. Sufficient capacity must be available to meet the order.

2. The bid price should not affect future selling prices and the customer should not expect repeat business at short-term incremental cost.

3. The order will utilize unused capacity for only a short period and capacity will be released for use on more profitable opportunities.

2. A price setting firm facing long-run pricing decisions

• Three scenarios considered:

1. Pricing customized products using cost-plus pricing.

2. Pricing non-customized products using cost-plus pricing or demand estimates.

3. Pricing non-customized products using target costing.

In the long-term a firm can adjust the supply of resources that are committed to it - therefore a product or service should be priced to cover all of the resources that are committed to it.

• Price setters have stronger grounds for adopting ABC.

3.Pricing customized products using cost-plus pricing:

1. An accurate costing system is required since undercosting will result in acceptance of unprofitable business and overcosting in the loss of profitable business.

2.To determine the selling price a full cost/long-run cost should be calculated and a mark-up added (i.e.a cost-plus selling price is determined - see sheets 11.11 and 11.12 for a more detailed explanation).

3. Cost assignment for pricing should be based on direct cost tracing or cause-and-effect assignments —Arbitrary allocations (e.g. Some business/facility-sustaining costs) should be allocated using behavioural drivers or covered within the mark-up.

4. ABC provides a better understanding of cost behaviour for negotiating with customers the price and size of the orders.

4.Pricing non-customized products (Cost-plus pricing):

Pricing decision involves large volumes to many customers of a single product/service.

Cost-plus pricing requires an estimate of sales volume to determine unit cost in order to derive the cost-plus price.

Recommended that cost-plus prices are estimated for a range of potential sales volumes (see Example 7.2(a) on sheet 7.7).

Pricing non-customized products (Using demand estimates):
If approximations of demand can be derived they may be preferable to using the cost-plus pricing approach. ('Crude estimates of demand may serve instead of careful estimates of demand but cost gives remarkably little insight into demand.' - Baxter and Oxendfelt).

See Example 7.2(b)on sheet 7.7 for an illustration of the approach (Note that profits are maximized at a SP of £80 and how the information can be used for showing the effects of other pricing policies).

5.A price setting firm facing long-run pricing decisions (cont.)

Pricing non-customized products (Target costing):

Target costing is the reverse of cost-plus pricing —The target selling price is the starting point.
Four stages are involved:
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 actual cost of the product.
Stage 4: If estimated actual cost exceeds the target cost investigate ways of driving down the actual cost to the target cost.

Marketing factors and customer research provide the basis for determining selling price (Not cost).
Emphasizes a team approach to achieving the target cost.
Most suited to high sales volume products.

6.A price taker firm facing short-run product-mix decisions

• Applies where opportunities exist for taking on short-term business at a market determined selling price.

• Cost information required and the same conditions apply as those specified for a price setter facing short-term pricing decisions.

• If short-term capacity constraints apply the product mix should be based on maximizing contribution per limiting factor (see Chapter 4).

7.A price taker firm facing long-run product-mix decisions

• In the long-term a firm can adjust the supply of resources that are committed to it – Therefore the sales revenue from a product or service should be sufficient to cover all of the resources that are committed to it.

• Periodic profitability analysis is required to ensure that only profitable products/services are marketed.

• Profitability analysis should be used as an attention-directing mechanism.

• Ideally ABC hierarchical profitability analysis should be used (see sheet 7.10).

Cost-plus pricing

• Different cost bases and mark-ups can be used to determine the cost-plus selling price:

Cost base	(£)	Mark-up %	Cost-plus selling price (£)
(1) Direct variable costs	200	250	500
(2) Direct non-variable costs	100		
(3) Total direct costs	300	70	510
(4) Indirect costs	80		
(5) Total cost (excluding higher level sustaining costs)	380	40	532
(6) Higher level sustaining costs	60		
(7) Total cost	440	20	528

8.Cost-plus pricing

• Target mark-ups seek to provide a contribution to non-assigned costs and profit.

• Target mark-ups are also adjusted to reflect demand, types of products, industry norms, competitive position, etc.

• Criticisms of cost-plus pricing:

Ignores demand

Does not necessarily ensure that total sales revenue will exceed total cost.

Can lead to wrong decisions if budgeted activity is used to unitize costs.

Circular reasoning —Volume estimates are required to estimate unit fixed costs and ultimately price.

9.Cost-plus pricing (cont.)

Reasons for using cost-plus pricing:

- May encourage price stability
- Demand can be taken into account by adjusting the target mark-ups.
- Simplicity

- Difficulty in applying sophisticated procedures where a firm markets hundreds of products/services.
- Used as a guidance to setting the price but other factors are also taken into account.
- Applied to only the relatively minor revenue items.

3. Marketer's Point of View

•Businesses operate in a competitive environment.

•Competitors' prices must be taken into account.

•Prices can be set lower, higher or equal to those of competitors to 'position' the products.

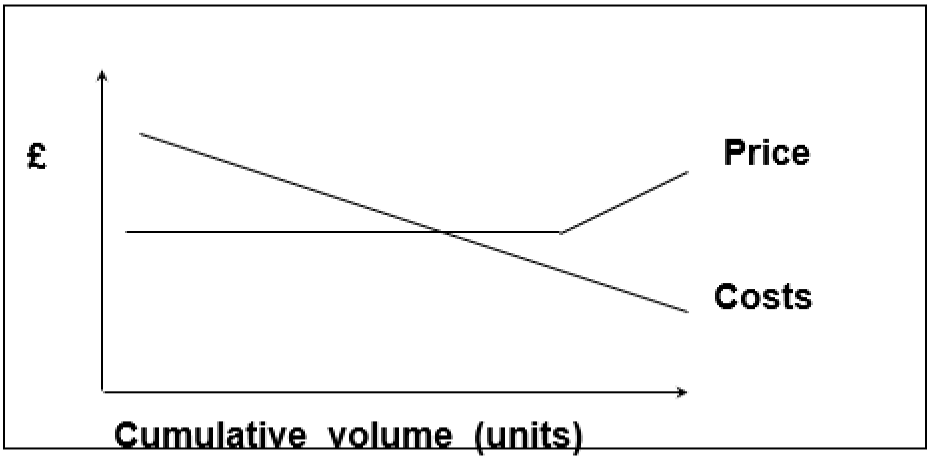
•Marketer's point of view should override those of economists and accountants.

1.Pricing policies

- Price-skimming
- Penetration pricing

2.PENETRATION STRATEGY (for new products)

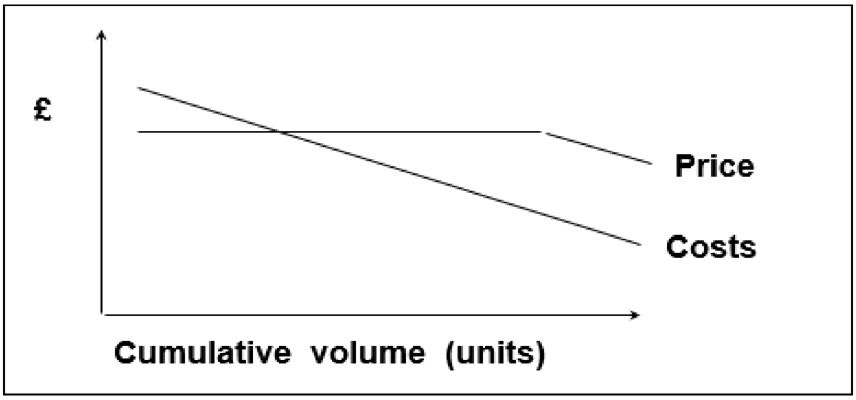
LOW INITIAL PRICES



Penetration builds market share and discourages competition.

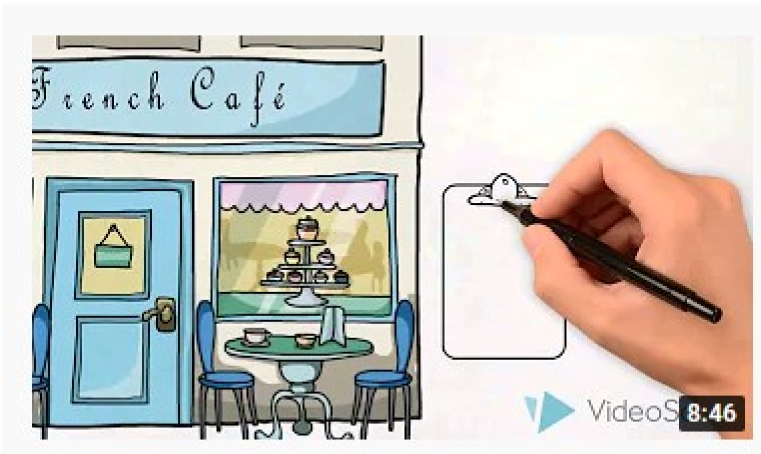
3. SKIMMING STRATEGY (for new products)

HIGH INITIAL PRICES



Skimming helps to recoup product development and launch costs, but encourages competition.

11.5.1 Video



Source: https://youtu.be/mmm0ccYPliU

12.6 SELF CHECK

PART A: STRUCTURE QUESTIONS

Question 1

ROCE = 20%; Total capital = £1M; Required profit = £200,000

An extract from Kryptomatic's budget for next year:

	£000
Direct materials	**150**
Direct labour	**50**
Prime cost	**200**
Variable production overheads	**25**
Fixed production overheads	**75**
Manufacturing cost	**300**
Administration overheads	**120**
Marketing overheads	**180**
Total cost	**600**
Profit	**200**
Total revenue	**800**

Compute profit margin and selling price as stated as follows:

a) Prime cost
b) Manufacturing cost
c) Total product

Question 2

ROCE = 15%; Total capital = £1M;

An extract from Planet Ltd's budget for next year:

	£000
Direct materials	**100**
Direct labour	**<u>80</u>**
Prime cost	**180**
Variable production overheads	**20**
Fixed production overheads	**<u>100</u>**
Manufacturing cost	**300**
Administration overheads	**150**
Marketing overheads	**<u>250</u>**
Total cost	**700**

Calculate the percentage plus-margin using (a) prime, (b) manufacturing and (c) full cost.

Question 3

After conducting a market research study, Garden Lights decides to produce a new light fixture to complement its outdoor lighting line. According to the estimates, the new fixture can be sold for a target price of $20. Estimated annual sales target is 100,000 light fixtures. Garden Lights has a
20% expected return on sales target. What is the target cost?

12.7 Summary

In this lesson, you learned the relevant cost information that should be presented in price setting firms for both short term and long-term decisions, Identify and describe three different types of pricing methods.