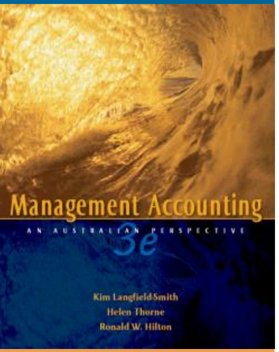
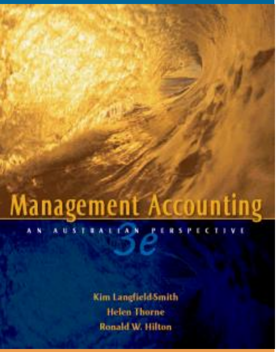


Chapter 19

Pricing and product mix decisions



Major influences on pricing decisions

- Market positioning
- Product cost
- Customer value
- Competitor behaviour
- Legal, political and ethical issues

- Cost forms the lower limit of the price, and customer value the upper limit

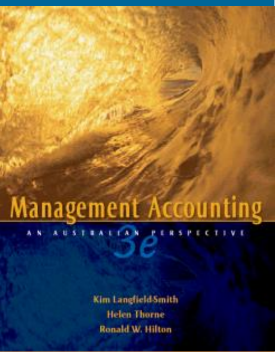
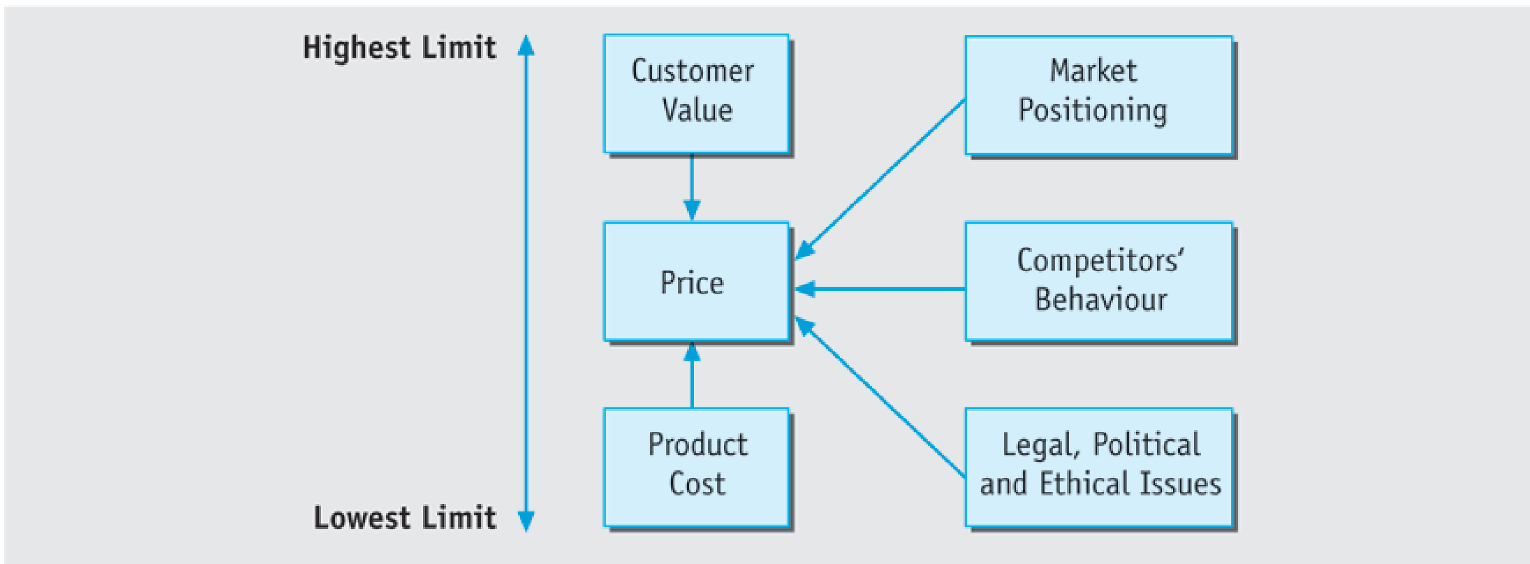
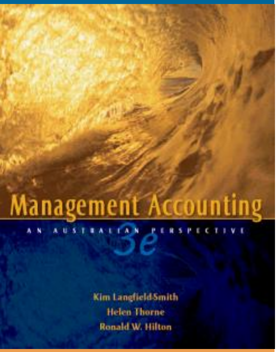


EXHIBIT 19.1 Factors that influence price





Major influences on pricing decision

- Market positioning
  - Companies position themselves in certain markets and this may influence product prices
  - A firm with a reputation for very high quality and prestigious products may set a high price, consistent with that image
  - An overemphasis on price cutting can damage a product's image, and reduce profitability

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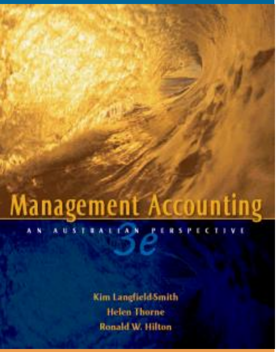
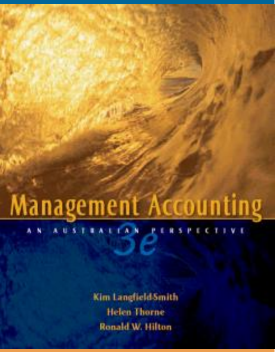


Major influences on pricing decisions

- Product costs
  - In the long-term firms must produce at a cost below selling price
  - The importance of product cost in price setting varies across industry
  - Even when a firm sets a price below cost, it is still important to have an awareness of product cost

continued

Major influences on pricing decisions



- Customer value
  - Understanding customer value is a critical aspect in price setting
  - The difference between the value that a customer gains by owning and using a product, and the price paid for the product
  - Businesses must understand the specific aspects of a product or service that provide value to the customer

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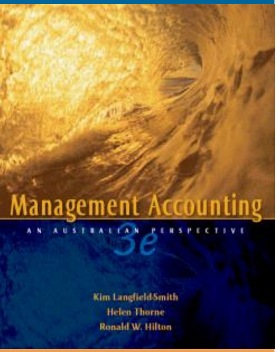

Major influences on pricing decisions

- Competitors' behaviour
  - Competitors’ behaviour can effect a company’s pricing decisions
  - When considering the reaction of competitors management must take care to define its product and market correctly
  - Predicting competitors’ reactions to its products and pricing strategy is a difficult but important task for management

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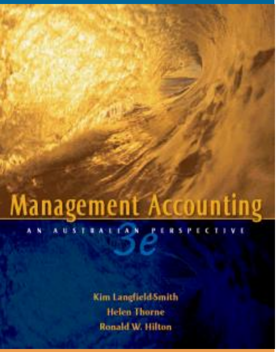
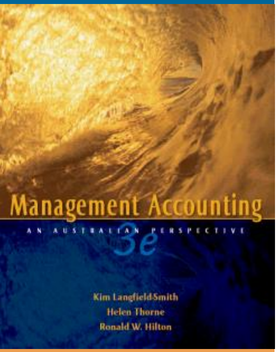


Major influences on pricing decisions

- Legal, political and ethical issues
  - Managers must adhere to the laws when setting prices
  - The law generally prohibits companies from discriminating between customers in setting prices
  - Political pressures may lead to intervention in the setting of prices
  - Ethical considerations may need to be considered, including deceptive practices



Economic profit-maximising models

- Economic model focus on the optimal price and sales quantity that will maximise profit
- Price elasticity is the impact on price changes on sales volume
- Cross elasticity is the extent to which a change in a product's price can affect the demand for a substitute product

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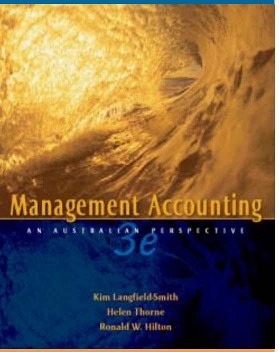
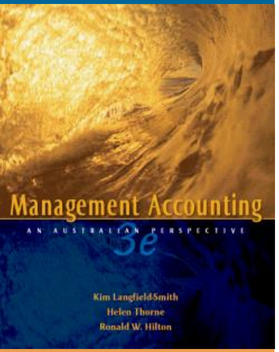


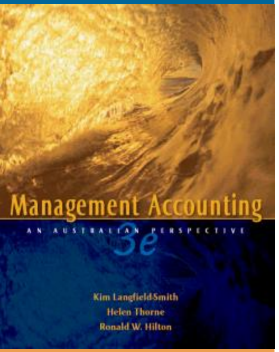
Economic profit-maximising models

- Demand is elastic if a price increase has a large negative impact on sales volume
- Demand is inelastic if a price change has little or no impact on sales quantity



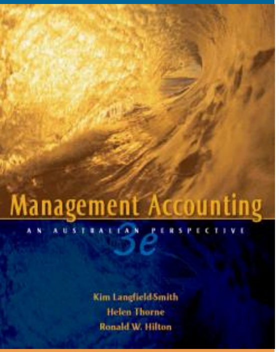
Limitations of the economic model

- Difficult to precisely determine the firm’s demand curve and marginal revenue curve
- Many factors affect product demand
- Not valid for all forms of markets
- Difficulty of measuring marginal cost—most costing systems are not designed to do this



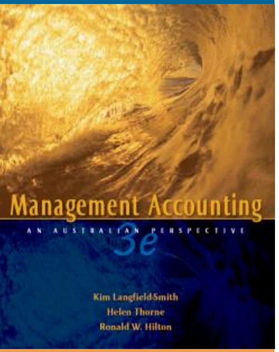
Pricing strategies

- Value based pricing
  - Where customers' perceptions of the value of the product or service guide the pricing
- Economic value pricing
  - Specifically estimates the costs and benefits experienced by the customer, which extend beyond the initial purchase price
  - Often used in industrial markets



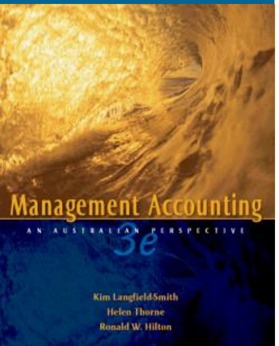
Using product costs in pricing

- Product costs are used, to some degree, to set prices
  - Difficult to do thorough market analysis for all products—need quick, straightforward methods to set price
  - Costs give management a starting point
  - Cost provides a floor below which price cannot be set in the long run



Cost-plus pricing

- Cost-based pricing formulas
  - Price = cost + (mark-up percentage x cost)
- Mark-up percentage is dependent on the type of costing used
- Two issues
  - What is the best definition of cost to be used in the cost-plus pricing formula?
  - How is the desired mark-up determined?



Product costing definitions

- Absorption cost pricing formulas
  - Provide a justifiable price—perceived to be equitable to all parties
  - Usually provided by a firm's costing system—cost-effective to use in pricing
  - Disadvantages
    - Obscures the cost behaviour patterns of the firm
    - Not consistent with CVP analysis

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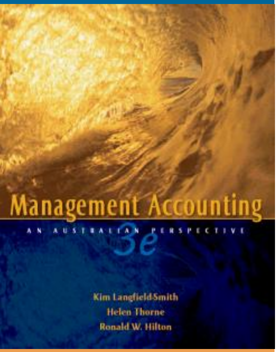
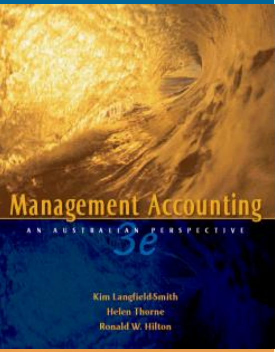


Product costing definitions

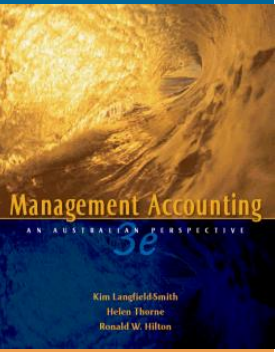
- Variable cost pricing formulas
  - Does not obscure the cost behaviour pattern by unitising fixed costs
  - Variable cost data is useful for short-term pricing decisions
  - Disadvantages
    - In the long-term prices must be set to cover all costs and a normal profit margin
    - Managers must use high mark-up when using variable cost



Determining the mark-up

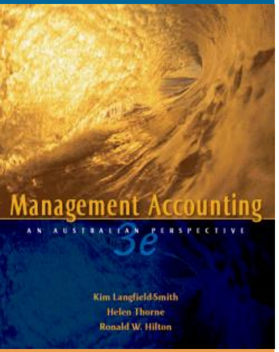
- Return on investment pricing
  - Selling price determined by using the required rate of return to determine the mark-up on cost

Average investment x target ROI = target profit



Mark-up percentage

$$\text{Mark-up percentage} = \frac{\begin{array}{c}\text{profit required to}\\ \text{achieve target ROI}\end{array} + \begin{array}{c}\text{total annual costs not included}\\ \text{in cost base}\end{array}}{\text{annual volume} \times \begin{array}{l}\text{cost base per unit used in}\\ \text{cost-plus pricing formula}\end{array}}$$



Time and material pricing

- Cost-plus pricing using separate labour and materials charges
- Labour charge includes a charge for labour-related overhead and profit margin
- Material charge includes a charge for material-related overhead

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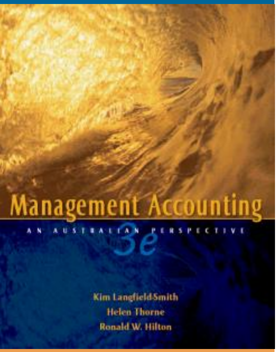


Time and material pricing

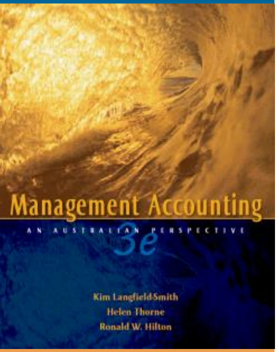
$$\begin{array}{c}\text{Time charge}\\ \text{(hourly rate)}\end{array} = \begin{array}{c}\text{hourly}\\ \text{labour}\\ \text{cost}\end{array} + \left(\frac{\begin{array}{c}\text{annual overhead}\\ \text{(excluding material}\\ \text{handling and storage)}\end{array}}{\text{annual labour hours}}\right) + \begin{array}{c}\text{hourly charge}\\ \text{to cover}\\ \text{profit margin}\end{array}$$

$$= \$18 \text{ per hour} + \frac{\$200\,000}{10\,000 \text{ hours}} + \$7$$

$$= \$45 \text{ per labour hour}$$

$$\text{Material charge} = \begin{array}{c}\text{material}\\ \text{cost}\\ \text{incurred}\\ \text{on job}\end{array} + \left(\begin{array}{c}\text{material}\\ \text{cost}\\ \text{incurred}\\ \text{on job}\end{array} \times \frac{\begin{array}{c}\text{annual material handling}\\ \text{and storage costs}\end{array}}{\begin{array}{c}\text{annual cost of materials used}\\ \text{in Repair Department}\end{array}}\right)$$

$$= \begin{array}{c}\text{material}\\ \text{cost}\\ \text{incurred}\\ \text{on job}\end{array} + \left(\begin{array}{c}\text{material}\\ \text{cost}\\ \text{incurred}\\ \text{on job}\end{array} \times \underbrace{\frac{\$40\,000}{\$1\,000\,000}}_{\$0.04 \text{ per dollar of material cost}}\right)$$



Cost-plus pricing: summary and evaluation

- Effective price setting requires a constant interplay of
  - Market considerations
  - Cost awareness
- Cost-plus pricing may be used to establish a pricing starting point

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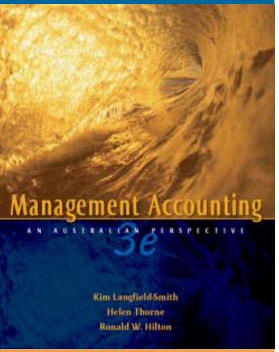
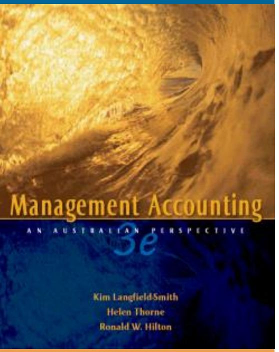


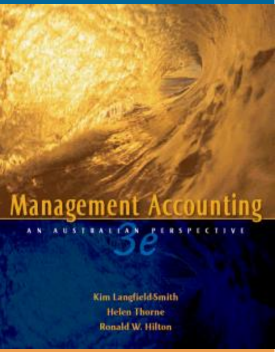
Cost-plus pricing: summary and evaluation

- Cost-plus pricing formulas:
  - Simple
  - Can be applied mechanically
  - Allow managers to update prices for multiple products
  - Can be used with a variety of cost definitions
- Mark-up percentages should take account of the cost definitions



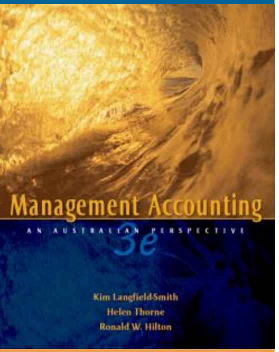
The role of ABC in pricing

- Conventional volume-based product costing systems may distort costs between product lines
- ABC
  - Measures the extent to which each product consumes costs of key support activities
  - Will provide more accurate cost figures on which to base prices



Strategic pricing of new products

- The newer the concept of the product, the more difficult the pricing decision
- Skimming pricing
  - A high initial product price to reap high short-term profits on a new product
  - Over time, the price will be lowered
- Penetration pricing
  - A low initial price of a new product to attract market share



Competitive bidding

- Two or more companies submit sealed bids (or prices) for a product, service or project, to a potential buyer
- Similar considerations as for accepting or rejecting a special order
- Excess capacity
  - If price > incremental costs of producing the product, will contributes towards the company's fixed cost and profit

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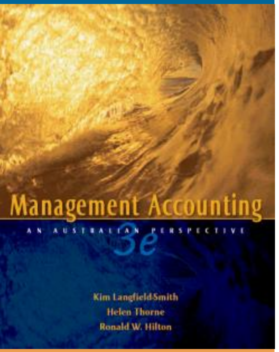
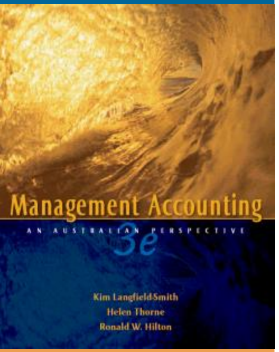


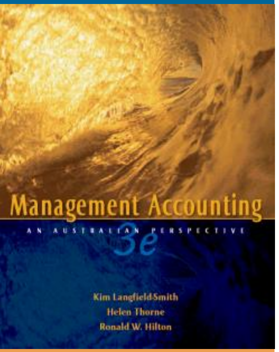
Competitive bidding

- No excess capacity
  - Incremental costs still relevant
  - Opportunity costs must be assessed
  - A bid price should cover the opportunity cost
  - The bid price may be higher than when excess capacity exists
- Qualitative and strategic issues need to be considered



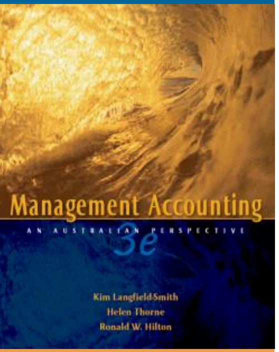
Legal restrictions on pricing

- Australian Competition and Consumer Commission (ACCC) has power to outlaw the following behaviours
  - Predatory pricing
  - Price discrimination
  - Resale price maintenance
  - Price-fixing contracts



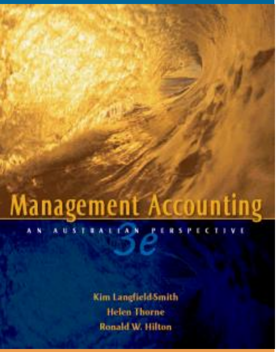
Product mix decisions

- Determining the most appropriate range of products to offer to consumers
- Product mix decisions are linked to pricing as prices influence
  - Profitability
  - Customer behaviour and competitors reactions



Tactical product mix decisions with limited resources

- Tactical product mix
  - Use *contribution margin per unit of the scarce resource*, not contribution margin per unit
  - Consider implications of the decision on customer behaviour and competitor reactions
- Limited resources may include floor-space, machine time, raw materials, labour hours
- Multiple scarce resources → use linear programming



Long-term product mix decisions

- All relevant costs are considered in the final decision
- Loss-making products, firms can choose to
  - Increase product price
  - Try to reduce the cost of the product
  - Offer customer incentives
  - Retain the product as it is part of a range
  - Discontinue the product