

Extra Lecture Material: Ch 17 Tactical Decision Making & Ch 18 Pricing & Profitability Analysis

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Chapter 17 Objectives

1. Describe the tactical decision-making model
2. Define the concept of relevant costs and revenues.
3. Explain how the activity resource usage model is used in assessing relevancy.
4. Apply the tactical decision-making concepts in a variety of business situations.

Tactical Decision Making

The Tactical-Decision Making Process

1. Recognize and define the problem
2. Identify alternatives as possible solutions to the problem, and eliminate any unfeasible alternatives
3. Identify the costs and benefits associated with each feasible alternative. Eliminate the costs and benefits that are not relevant to the decision.

Tactical Decision Making

The Tactical-Decision Making Process

4. Compare the relevant costs and benefits for each alternative
5. Assess qualitative factors
6. Select the alternative with the greatest overall benefit

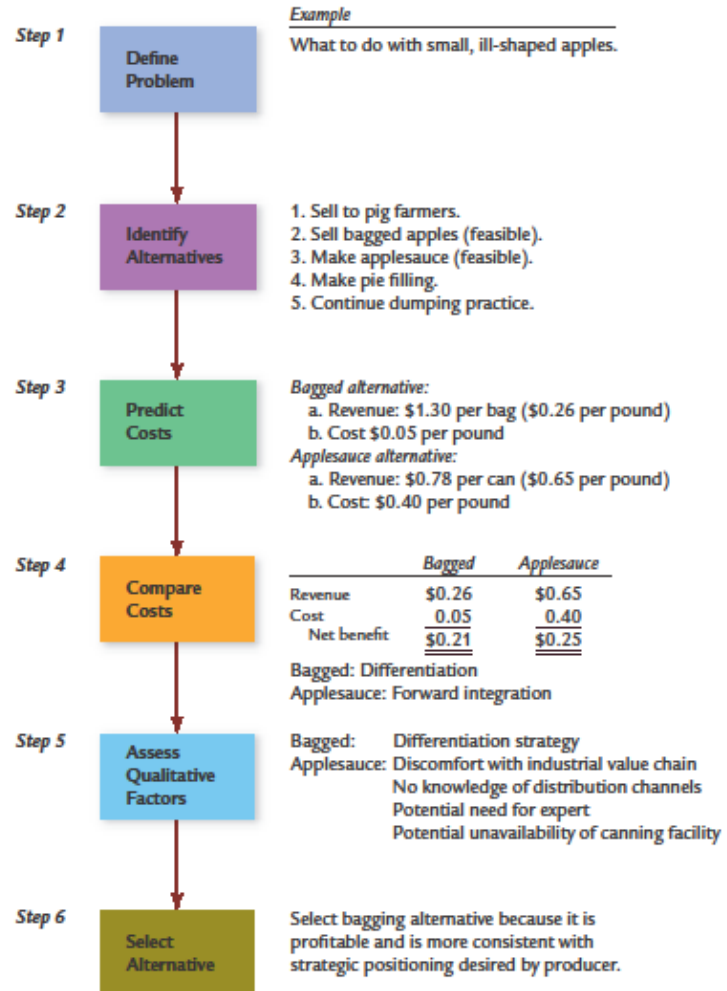
Tactical Decision Making

Decision model: a set of procedures that, if allowed, will lead to a decision

Tactical cost analysis: the use of relevant cost data to identify the alternative that provides the greatest benefit to the organization. Includes predicting costs, identifying relevant costs, and comparing relevant costs

Tactical Decision Making

Decision Model: Tactical Decision- Making Process



Relevant Costs and Revenues

- **Relevant costs** (revenues) are future costs (revenues) that differ across alternatives.
- Only future costs can be relevant
- The cost must differ from one alternative to another
- **Irrelevant cost** – if a future cost is the same for more than one alternative, it has no effect on the decision

Relevant Costs and Revenues

- **Sunk costs** – Past Costs
 - Example: the original cost of a building is a sunk cost when you are trying to decide whether or not to sell the business five years later.
- Future costs

Relevancy, Cost Behavior, and the Activity Resource Usage Model

Activity Resource Usage Model

Focuses on the use of resources

Flexible resources: can be easily purchased in the amount needed and at the time of use (like electricity)

Demand changes → relevant

Demand constant → not relevant

Relevancy, Cost Behavior, and the Activity Resource Usage Model

Committed Resources are purchased before they are used (like salaried employees)

Supply – Demand = Unused capacity

Demand Increase < Unused Capacity → not relevant

Demand Increase > Unused Capacity → relevant

Demand Decrease (Permanent)

a. Activity capacity reduced → relevant

b. Activity capacity unchanged → not relevant

Illustrative Examples of Tactical Decision Making

- Make or Buy Decision
 - A decision whether to make or buy components or services used in making a product or providing a service

Illustrative Examples of Tactical Decision Making

- Keep or Drop Decisions
 - Determine whether a segment should be kept or dropped

Illustrative Examples of Tactical Decision Making

- Special Order Decisions
 - Focus on whether a specially priced order should be accepted or rejected
 - Short term focus
 - Care should be taken so that acceptance of special orders does not jeopardize normal distribution channels or adversely affect other strategic elements

Illustrative Examples of Tactical Decision Making

- Decisions to Sell or Process Further
 - Joint products have common processes and costs of production up to a split off point
 - The point of separation is called the split off point
 - Key point – all the joint production costs are irrelevant to the sell or process further decision. By the time the split-off point is reached, all joint costs are sunk and irrelevant.

Ch 18 - Pricing and Profitability Analysis

Chapter 18 Objectives

1. Discuss basic pricing concepts.
2. Calculate a markup on cost and a target cost.
3. Discuss the impact of the legal system and ethics on pricing.
4. Explain why firms measure profit, and calculate measures of profit using absorption and variable costing.
5. Compute the sales price, sales volume, contribution margin, contribution margin volume, sales mix, market share, and market size variances.
6. Discuss the variations in price, cost, and profit over the product life cycle.
7. Describe some of the limitations of profit measurement.

Basic Pricing Concepts

“A business that does not make a profit for the buyer of a commodity, as well as for the seller, is not a good business. Buyer and seller must both be wealthier in some way as a result of a transaction, else the balance is broken.”

Henry Ford, 1926

Basic Pricing Concepts

- Factors other than price that influence demand: consumer income, quality of goods offered for sale, availability of substitutes, demand for complementary goods, whether or not the good is a necessity or a luxury.
- Price Elasticity of Demand
 - Measured as the percentage change in quantity divided by the percentage change in price
 - If demand is relatively elastic, a small percent change in price will lead to a greater percent change in quantity demanded (the opposite is true for inelastic demand)

Basic Pricing Concepts

- **Market Structure and Price**
 - **Perfect competition** – many buyers and sellers, no one of which is large enough to influence the market
 - **Monopolistic competition** – has both the characteristics of both monopoly and perfect competition
 - **Oligopoly** – few sellers
 - **Monopoly** – barriers to entry are so high that there is only one firm in the market

Basic Pricing Concepts

EXHIBIT 18.1

Characteristics of the Four Basic Types of Market Structure

Market Structure Type	Number of Firms in Industry	Barriers to Entry	Uniqueness of Product	Expenses Related to Structure Type
Perfect competition	Many	Very low	Not unique	No special expenses
Monopolistic competition	Many	Low	Some unique features	Advertising, coupons, costs of differentiation
Oligopoly	Few	High	Fairly unique	Costs of differentiation, advertising, rebates, coupons
Monopoly	One	Very high	Very unique	Legal and lobbying expenditures

Cost and Pricing Policies

Two Approaches to Pricing

- 1. Cost-based Pricing:** prices are established using ‘cost’ plus markup
- 2. Target Pricing:** prices are influenced by market conditions

Cost and Pricing Policies

Cost Plus Pricing

Markup is a percentage applied to base cost; it includes desired profit and any costs not included in the base cost.

Markup on COGS = (Selling and administrative expenses + Operating Income)/COGS

Markup on DM = (Direct Labor + Overhead + Selling and administrative expense + Operating Income)/ Direct Materials

Cost and Pricing Policies

- **Target Costing**
 - Sets the cost of a product or service based on the price that customers are willing to pay
 - Involves more upfront work than cost based pricing. If the cost-plus pricing turns out to be higher than what customers will accept, additional work or lost opportunity will result

Cost and Pricing Policies

- Other Pricing Policies
 - **Penetration pricing:** the pricing of a new product at a low initial price to build market share quickly
 - Not like predatory pricing because it is not meant to destroy competition
 - **Price skimming:** a higher price is charged when a product or service is first introduced
 - **Price gouging:** occurs when firms with market power price products 'too high'

The Legal System and Pricing

Basic principle behind pricing regulation is that competition is good and should be encouraged.

Predatory pricing: the practice of setting prices below cost for the purpose of injuring competitors and eliminating competition.

Predatory pricing on the international market is called dumping.

The Legal System and Pricing

- **Price discrimination:** refers to the charging of different prices to different customers for essentially the same product.
- Robinson-Patman Act 1936 passed to outlaw price discrimination. It allows discrimination under certain circumstances:
 - If the competitive situation demands it
 - If costs can justify the lower price

Measuring Profit

Profit: a measure of the difference between what a firm puts into making and selling a product or service and what it receives

Profits are measured to:

1. Determine the viability of the firm
2. Measure managerial performance
3. Determine whether or not a firm adheres to government regulations
4. Signal the market about the opportunities for others to earn a profit

Measuring Profit

- Absorption Costing Approach
 - Also called full costing
 - Required for external financial reporting
 - Assigns all manufacturing costs, direct materials, direct labor, variable overhead and a share of fixed overhead to each unit of product – thus, each unit of product absorbs some of the fixed manufacturing overhead in addition to its variable manufacturing costs

Measuring Profit

EXHIBIT 18.3

Alden Company Absorption-Costing Income Statement (In thousands of dollars)

	Basic	Multi-Function	Total
Sales	\$ 4,000	\$3,500	\$ 7,500
Less: Cost of goods sold	<u>1,700</u>	<u>1,175</u>	<u>2,875</u>
Gross profit	\$ 2,300	\$2,325	\$ 4,625
Less:			
Marketing expenses	(400)	(350)	(750)
Administrative expenses	<u>(1,067)</u>	<u>(933)</u>	<u>(2,000)</u>
Operating income	<u>\$ 833</u>	<u>\$1,042</u>	<u>\$ 1,875</u>

Measuring Profit

- **Variable Costing Approach**
 - Called direct costing
 - Assigns only unit level variable manufacturing costs to the product- these costs include direct materials, direct labor, variable overhead
 - Fixed overhead is treated as a period cost and is not inventoried with the other product costs – it is expensed in the period incurred

Measuring Profit

(EXHIBIT 18.4)

Alden Company Variable-Costing Income Statement (In thousands of dollars)

	Basic	Multi-Function	Total
Sales	\$ 4,000	\$ 3,500	\$ 7,500
Less:			
Variable cost of goods sold	(1,362)	(1,048)	(2,410)
Sales commissions	<u>(400)</u>	<u>(350)</u>	<u>(750)</u>
Contribution margin	<u>\$ 2,238</u>	<u>\$ 2,102</u>	<u>\$ 4,340</u>
Less:			
Fixed overhead			(465)
Administrative expenses			<u>(2,000)</u>
Operating income			<u>\$ 1,875</u>

Measuring Profit

Changes in Inventory Under Absorption and Variable Costing

If	Then
1. Production > Sales	Absorption-costing income > Variable-costing income
2. Production < Sales	Absorption-costing income < Variable-costing income
3. Production = Sales	Absorption-costing income = Variable-costing income

Analysis of Profit Related Variances

Sales price variance =
(actual price – expected price) × Quantity sold

Price Volume Variance =
(Actual volume – Expected volume) × expected
price

Analysis of Profit Related Variances

Contribution Margin Variance =

Annual contribution margin – Budgeted contribution margin

Contribution margin volume variance =

$(\text{Actual quantity sold} - \text{Budgeted quantity sold}) \times$
Budgeted average unit contribution margin

Analysis of Profit Related Variances

Sales Mix Variance =

$$\begin{aligned} &[(\text{Product 1 actual units} - \text{Product 1 budgeted units}) \times (\text{Product 1} \\ &\text{budgeted unit contribution margin} - \text{Budgeted average unit} \\ &\text{contribution margin})] + [(\text{Product 2 actual units} - \text{Product 2} \\ &\text{budgeted units}) \times (\text{Product 2 budgeted unit contribution margin} - \\ &\text{Budgeted average unit contribution margin})] \end{aligned}$$

Analysis of Profit Related Variances

Market Share Variance =

$$[(\text{Actual market share percentage} - \text{Budgeted market share percentage}) \times (\text{Actual industry sales in units})] \times (\text{Budgeted average unit contribution margin})$$

Market Size Variance =

$$[(\text{Actual industry sales in units} - \text{Budgeted industry sales in units}) \times (\text{Budgeted market share percentage})] (\text{Budgeted average unit contribution margin})$$

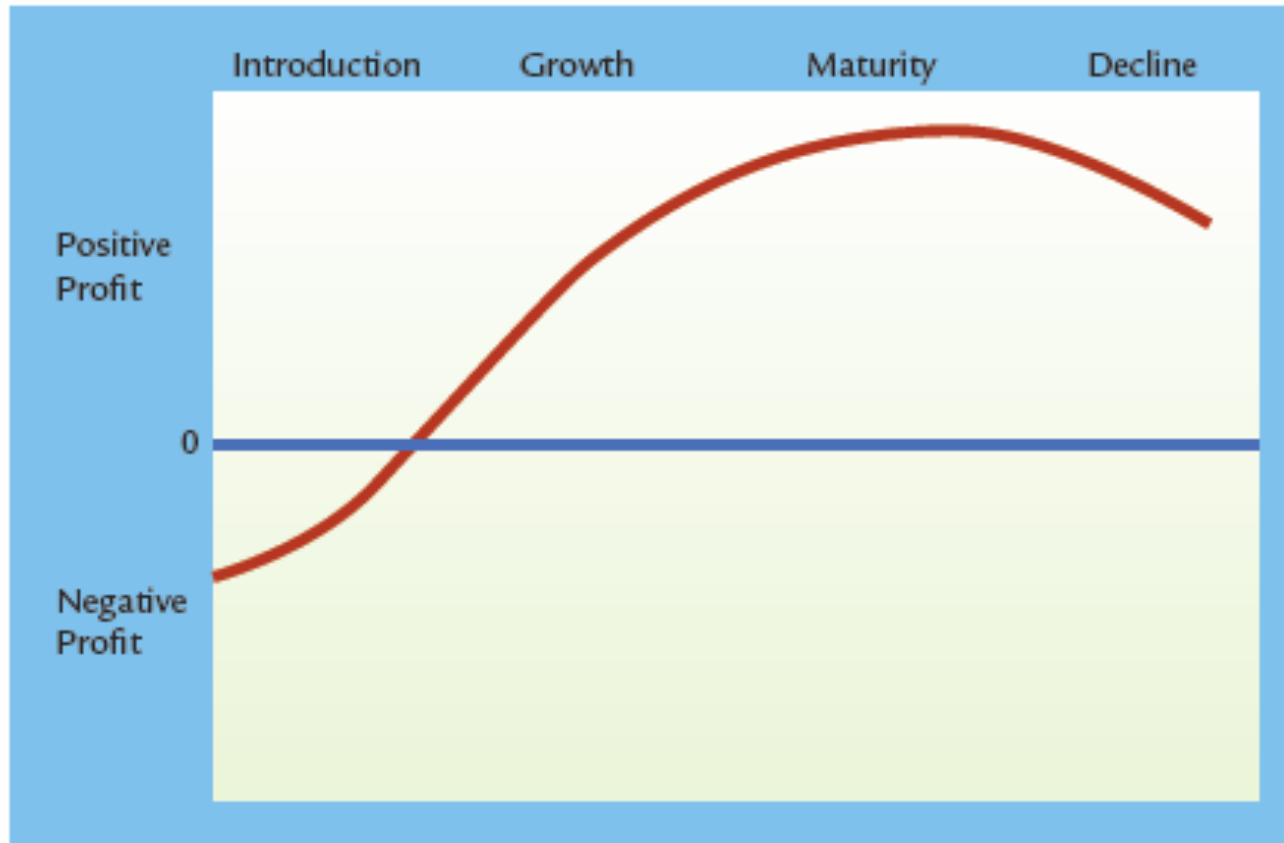
The Product Life Cycle

- **Product Life Cycle:** describes the profit history of the product according to four stages
 - Introduction
 - Growth
 - Maturity
 - Decline
- Helps the firm understand the different competitive pressures on a product in each stage

The Product Life Cycle

EXHIBIT 18.5

Product Life Cycle and Profitability



The Product Life Cycle

(EXHIBIT 18.6)

Impact of the Product Life Cycle on Cost Management

	Introduction	Growth	Maturity	Decline
Product	Basic design, few models	Some improvements, expanding product line	Proliferation of product lines, extensive differentiation	Minimal changes, reduced number of product lines
Learning effects	High costs, much learning, but little payoff	Still strong, learning begins to reduce costs	Stable production, little to no learning	No learning, labor as efficient as it can be
Setups	Few, but new and unfamiliar	More, as new models are introduced	Many, as product differentiation occurs	Fewer, as only best selling lines are produced
Purchasing	May be high as new materials and suppliers are sought	Lower, reliable suppliers found, few material changes	May be high depending on line changes	Fewer suppliers and orders as existing inventories are liquidated
Marketing expense	Low selling and distribution costs to small number of target markets	Increased advertising and distribution	Supportive advertising, increased trade discounts, high distribution cost	Minimal advertising, distribution, and promotion

The Product Life Cycle

EXHIBIT 18.7

Product Life-Cycle Costs in the ABC Categories

ABC Category	Product Life-Cycle Phase			
	Introduction	Growth	Maturity	Decline
Unit-level costs	High	Lower	Low to stable	Low
Batch-level costs	High	Lower	Higher	Low
Product-level costs	High	Lower	Low to stable	Low
Facility-level costs	High	Low	Low	Low

Limitations of Profit Measurement

Limitations of profit include:

- Focus on past performance
- Uncertain economic conditions
- Difficulty of capturing all important factors in financial measures

Successful firms measure far more than accounting profit.