COST AND MANAGEMENT ACCOUNTING 2

Introduction to Managerial Accounting and Business Environment & Cost-Volume-Profit Analysis

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This e-book is a lecture note for the first topic for Cost and Management Accounting II which is introduction to Management Accounting and Business Environment and topic 4 Cost-Volume-Profit Analysis.

This e-book is suitable for all Polytechnic students who take this course especially for Diploma in Accounting Management.

Thank you.

Sunita Embong &

Nor Ain Solihah Mohd Razali

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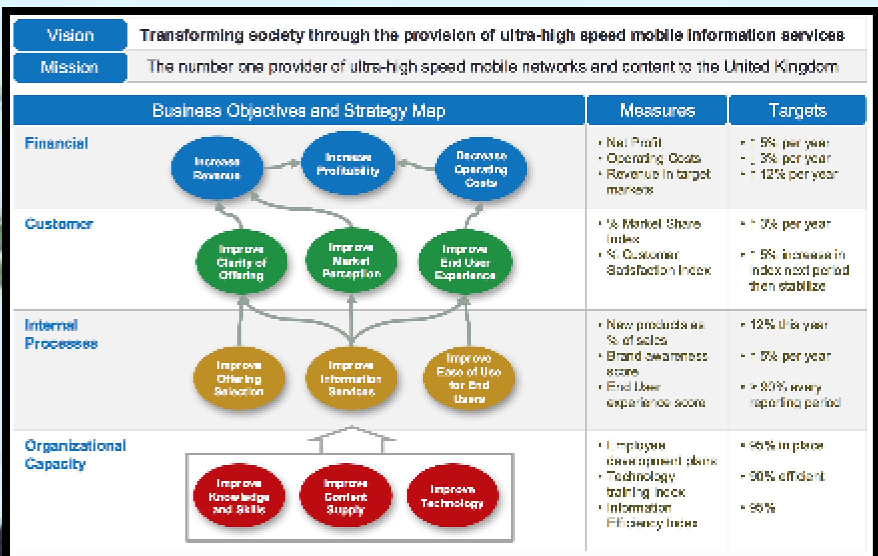
1 The balanced scorecard and strategy map

The balanced scorecard translate an organization's mission and strategy into a comprehensive set of performance measures that provides the framework for implementing its strategy. It covers 4 perspectives:

- ✓Financial perspective
- ✓Customer perspective
- ✓Internal business process perspective
- ✓Learning and growth perspective

(Horngren, Foster & Datar , 2000)



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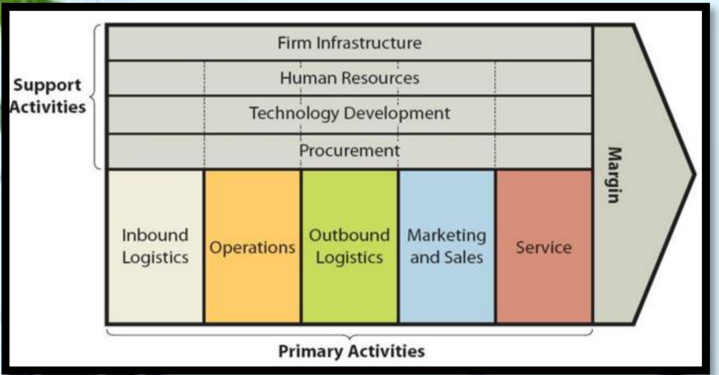
2 The value chain

The value chain comprises activities carried out by firms in any industry can be grouped into nine generic categories indicated. At each level of the value chain there is an opportunity to contribute positively to the firm's competitiveness strategy by performing some activities or processes in a way that is better than and/or different from a competitor's offering, and thus provides some uniqueness or advantage. If a firm achieves such a competitive advantage, which is sustainable, agreeable, profitable and valued by the market, then it may get a high rate of return.

The value chain includes both cost and value drives. A firm is profitable if the value of being held captive exceeds the costs involved in creating a product. Creating value for buyers who exceed the cost of doing so is the goal of any generic strategy. Suppliers, firms themselves and business customers all have their own value chain, starting from basic raw materials and going directly to those involved in the delivery of end products and services to end customers. Value activities can be divided into two broad types, primary activities and support activities.

(Hollensen, S. , 2020)



(Michael E. Porter,1985)

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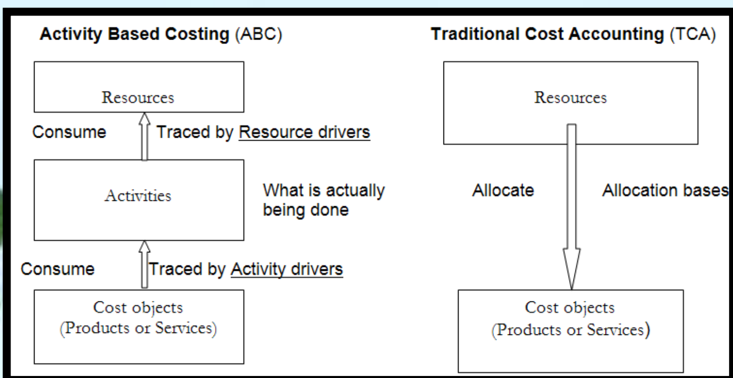
3 Activity based costing and management

Activity based costing (ABC) is a method of assigning indirect cost to product or services based on the activities they required. Activity based management (ABM) encompasses all the action that managers take to improve operation or reduce cost based on the ABC data.

(Whitecotton, Libby & Philips , 2011)



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4 Target costing

Target costing is to determine what is the target cost should be to meet the market price and still provide the profit for the company's shareholder. Its also called as cost planning because its requires managers to think about costs up front so that that can design and manufacture product at a cost that will satisfy both customers and shareholders.

Target cost should reflect all of the costs that will be incurred across the entire value.

(Whitecotton, Libby & Philips , 2011)

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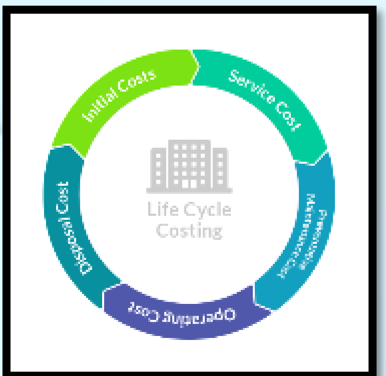
5 Life-cycle costing

Life cycle costing, or whole-life costing, is the process of estimating how much money you will spend on an asset over the course of its useful life. Whole-life costing covers an asset's costs from the time you purchase it to the time you get rid of it.

(Rachel Blakely-Gray , 2018)



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6 Total quality management

Total Quality Management (TQM) is an enhancement to the traditional way of doing business. It is a proven technique to guarantee survival in world-class competition. Only by changing the actions of management will the culture and actions of an entire organization be transformed. TQM is for the most part common sense. Analyzing the three words, we have:

- ✓Total—Made up of the whole.
- ✓Quality—Degree of excellence a product or service provides.
- ✓Management—Act, art, or manner of handling, controlling, directing, etc.

Therefore, TQM is the art of managing the whole to achieve excellence. TQM is defined as both a philosophy and a set of guiding principles that represent the foundation of a continuously improving organization. It is the application of quantitative methods and human resources to improve all the processes within an organization and exceed customer needs now and in the future. TQM integrates fundamental management techniques, existing improvement efforts, and technical tools under a disciplined approach.

Dale H, Carol, Glen H., Mary, hemant & Rashmi , 2012)

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7 Lean accounting

- ✓ Lean accounting is streamlining accounting processes within a company to maximize productivity, service, quality, and profit.

- ✓ Lean accounting involves several 'lean practices' which are used to reduce wasted time and resources. Lean practices are not related to reporting requirements, tax regulations, and compliance, but rather to internal processes that are improving overall accounting department.

- ✓ Vision for Lean Accounting:
    1. Provide accurate, timely, and understandable information to motivate the lean transformation throughout the organization, and for decision-making leading to increased customer value, growth, profitability, and cash flow.
    2. Use lean tools to eliminate waste from the accounting processes while maintaining thorough financial control.
    3. Fully comply with generally accepted accounting principles (GAAP), external reporting regulations, and internal reporting requirements.
    4. Support the lean culture by motivating investment in people, providing information that is relevant and actionable, and empowering continuous improvement at every level of the organization.

(Brian H. Maskell and Bruce L. Baggaley , 2006)

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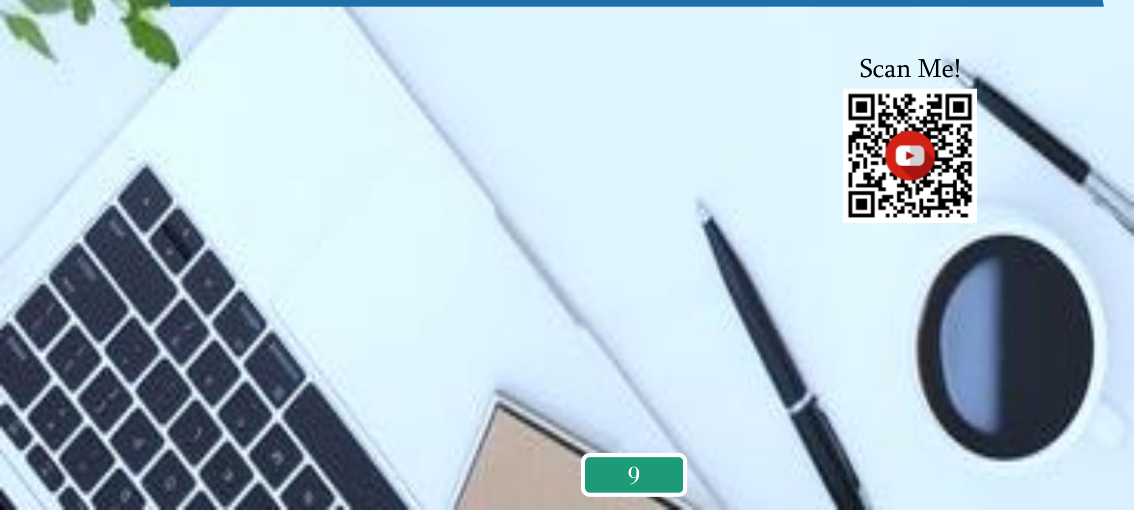

8 Learning curve theory

Learning curves enable managers to project the manufacturing cost per unit for any cumulative production quantity. Firms that choose to emphasize low price as a competitive strategy rely on high volumes to maintain profit margins. These firms strive to move down the learning curve (lower labor hours per unit or lower costs per unit) by increasing volume. This tactic makes entry into a market by competitors difficult. For example, in the electronics component industry, the cost of developing an integrated circuit is so large that the first units produced must be priced high. As cumulative production increases, costs (and prices) fall. The first companies in the market have a big advantage because newcomers must start selling at lower prices and suffer large initial losses.

The vertical axis of a learning curve represents the rate of learning, while the horizontal axis represents the volume or duration of experience.

The learning curve is also known as an experience curve.

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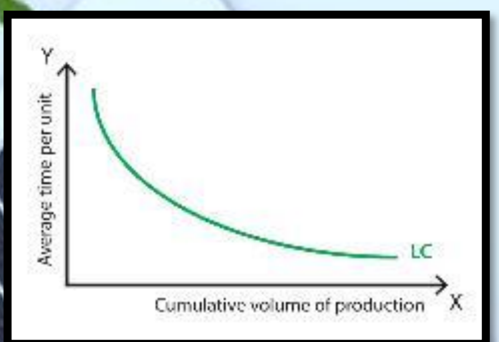
(Krajewski & Ritzman , 2004)



1.2 MANAGEMENT ACCOUNTING INFORMATION

1.2.1 Define management accounting information

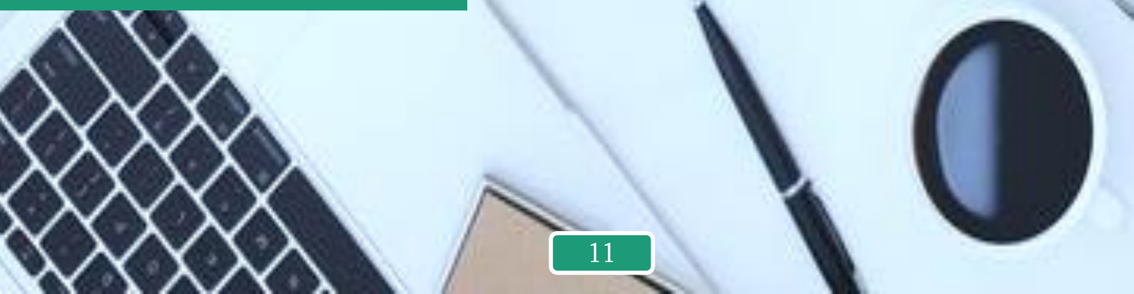
In management accounting or managerial accounting, managers use the provisions of accounting information in order to better inform themselves before they decide matters within their organizations, which aids their management and performance of control functions.

Management accounting is the process of using all the accounting data available to make better business decisions based on trends and facts (Noraihan et. al , 2017).

Management accounting provides information that helps manager make better decision and focus on relevance to business decisions and future orientation (Oliver & Horngren , 2010).

Management accounting information is a key source of information for decision-making, improvement and control in organizations.

For Example, management accounting information includes the reported expense of an operating department, the cost of the producing a product, the cost of delivering as service, or location or place of product, the cost of performing an activity or business process, such as creating a customer invoice and the costs of serving a customer.



1.2 MANAGEMENT ACCOUNTING INFORMATION

1.2.2 Importance of management accounting information to management in decision making process

Relevant Cost Analysis

Managerial accounting information is used by company management to determine what should be sold and how to sell it. For example, a small business owner may be unsure where he should focus his marketing efforts. To evaluate this decision, an accounting manager could examine the costs that differ between advertising alternatives for each product, ignoring common costs. This process is known as relevant cost analysis and is a technique that is taught in basic managerial accounting courses. The same process can be used to determine whether to add product lines or discontinue operations.

Activity-based Costing Techniques

Once the company has determined what products to sell, the business needs to determine to whom they should sell the products. By using activity-based costing techniques, small business management can determine the activities required to produce and service a product line. Embedded in this information is the cost of customers. Deciding which customers are more or less profitable allows the business owner to focus advertising toward the consumers who are the most profitable.

Make or Buy Analysis

A primary use of managerial accounting information is to provide information used in manufacturing. For example, a small business owner may be considering whether to make or buy a component needed to manufacture the company's primary product. By completing a make or buy analysis, she can determine which choice is more profitable. While this technique is certainly useful, small business owners should only use these analyses as a factor in the decision. There could be other non-financial metrics that are important to consider that would not be part of the analysis..

Utilizing the Data

Managerial accounting information provides a data-driven look at how to grow a small business. Budgeting, financial statement projections, and balanced scorecards are just a few examples of how managerial accounting information is used to provide information to help management guide the future of a company. By focusing on this data, managers can make decisions that aim for continuous improvement and are justifiable based on intelligent analysis of the company data, as opposed to gut feelings.

1.2 MANAGEMENT ACCOUNTING INFORMATION

1.2.3 Characteristics of Management Accounting Information

1 Relevant

Relevant information is information that is directly related to business need. Managers need to consider only relevant information to assist them in making decision. Two criteria for relevant information:

1)Future orientation/future information - Future information is deal for planning and setting the goals of the company.

2)All the information must have alternatives – the managers must have options to decide which is the best among all available alternatives.

2 Reliable

Reliable information is information that you can believe as being correct. It will be from a valid and trusted source. For example, reliable information would be sales or revenue figures for last month from sales department that is supplied to the finance department.

3 Understandable

Information that is used for a business purpose needs to be understandable by the end user. Since the information is already in a summarized form, it must be understood by the receiver or users so that they will interpret it correctly.

4 Timely

The information must be provided to the user in a timely manner. When critical information is received late, the appropriate action cannot be taken in a timely manner.

5 Comparable

Management accounting information is often used to make comparisons. For example, in comparing the performance of one department with another department, the same period must be used.

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6 Cost Benefit or Effective

Cost benefit or effective information is worth investing time and money in, because it helps management to make informed business decisions. The preparation of accounting information involves collecting, analyzing and interpreting data.

(Noraihan, Marlina, Shaharoni, Sabrina & Nor Lailihuda , 2017)

1.3 IMPORTANCE OF ETHICS IN BUSINESS

1.3.1 Discuss the code of conduct for management accountants based on Institute of Management Accountants (IMA)

Ethics is an important part of managerial accounting, and companies follow a code of ethics or conduct that addresses ethical issues/concerns for management accountants. The ethical dilemmas of managerial accountants are increasing in response to big data, artificial intelligence and other technologies, as reported in the September 2019 issue of the *CPA Journal*. Ethical codes of professional organizations provide helpful guidance.

Institute of Management Accountants (IMA)
The Institute of Management Accountants (IMA) is a professional organization responsible for creating managerial accounting guidelines. The IMA provides managerial accounting ethics for licensed accountants, and non-licensed accountants also can use these ethical standards to govern their accounting career. The IMA's ethical principles are based on honesty, fairness, objectivity and responsibility. IMA members must use these ethical principles when engaging in accounting services for their company and the general public.

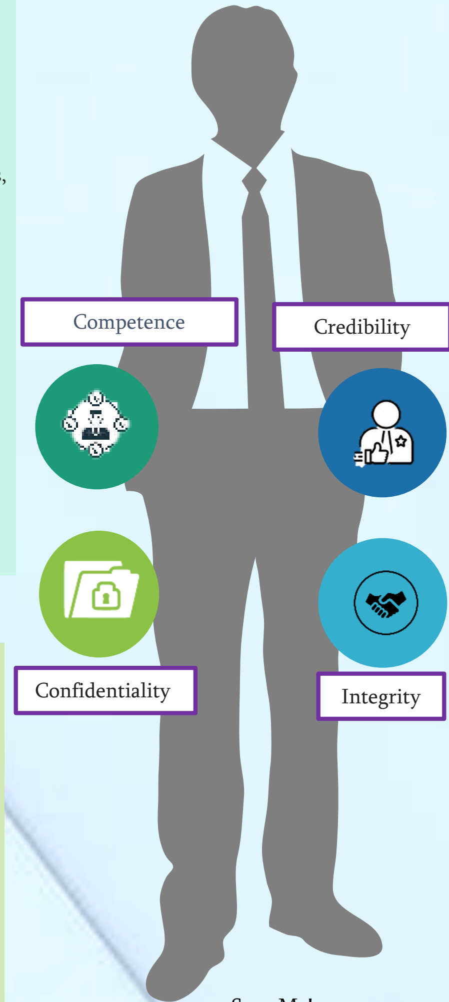
IMA Professional Standards
The IMA stresses four standards of ethical conduct for management accountants. IMA Statement of Ethical Professional Practice examples define how accountants should conduct themselves in their daily business affairs.

1.3 IMPORTANCE OF ETHICS IN BUSINESS

1.3.1 Discuss the code of conduct for management accountants based on Institute of Management Accountants (IMA)

Each member has a responsibility to :

1. Maintain an appropriate level of professional expertise by continually developing knowledge and skills.
2. Perform professional duties in accordance with relevant laws, regulations and technical standards.
3. Provide decision support information and recommendations that are accurate, clear, concise and timely.
4. Recognize and communicate professional limitations or other constraints that would preclude responsible judgement or successful performance of an activity.



•Each member has a responsibility to:

1. Communicate information fairly and objectively.
2. Disclose all relevant information that could reasonably be expected to influence an intended user's understanding of the reports. analyses or recommendations.
3. Disclose delays or deficiency in information, timeliness, processing, or internal control in conformance with organization policy and/or applicable law.

Each member has a responsibility to:

1. Keep Information confidential except when disclosure is authorized or legally required.
2. Inform all relevant parties regarding appropriate use of confidential information. Monitor subordinates' activities to ensure compliance.
3. Refrain from using confidential information for unethical or illegal advantage.

•Each member has a responsibility to:

1. Mitigate actual conflicts of interest, regularly communicate with business associates to avoid apparent conflicts of interest. Advise all parties of any potential conflicts.
2. Refrain from engaging in any conduct that would prejudice carrying out duties ethically.
3. Abstain from engaging in or supporting any activity that might discredit the profession.

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(Oliver & Horngren , 2010)

1.3 IMPORTANCE OF ETHICS IN BUSINESS

1.3.1 Discuss the code of conduct for management accountants based on Institute of Management Accountants (IMA)

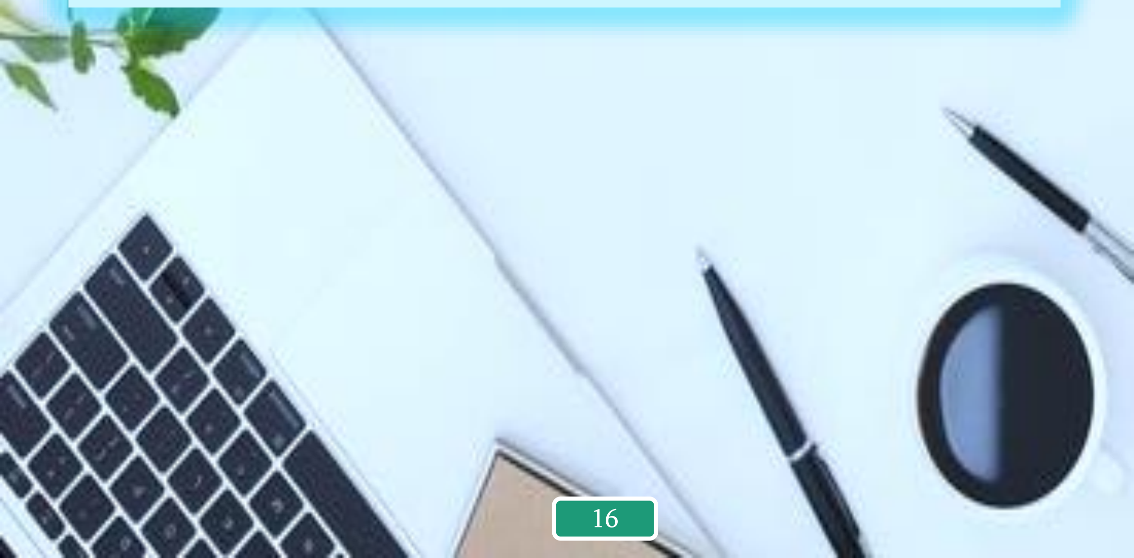
Managerial ethics ensure that all financial information is reported to business owners, directors or managers. Accountants who fail to report negative information or use a company's internal financial information for personal gain can create serious legal situations for businesses. Business owners often require all information, whether good or bad, when reviewing business operations and making decisions. Accounting ethics also ensure that each employee can be trusted with sensitive business information.

Circumventing Unethical Behavior

Companies may choose to act unethically in the business environment. Business owners may determine that unethical behavior is not necessarily illegal, a logic that creates a gray-shaded area in business. Managerial accountants constantly may push ethical limits when recording and reporting financial information. Companies should provide detailed explanations to those conducting external audits regarding questionable accounting procedures to ensure adherence to IMA standards of practice.

Consequences of Unethical Actions

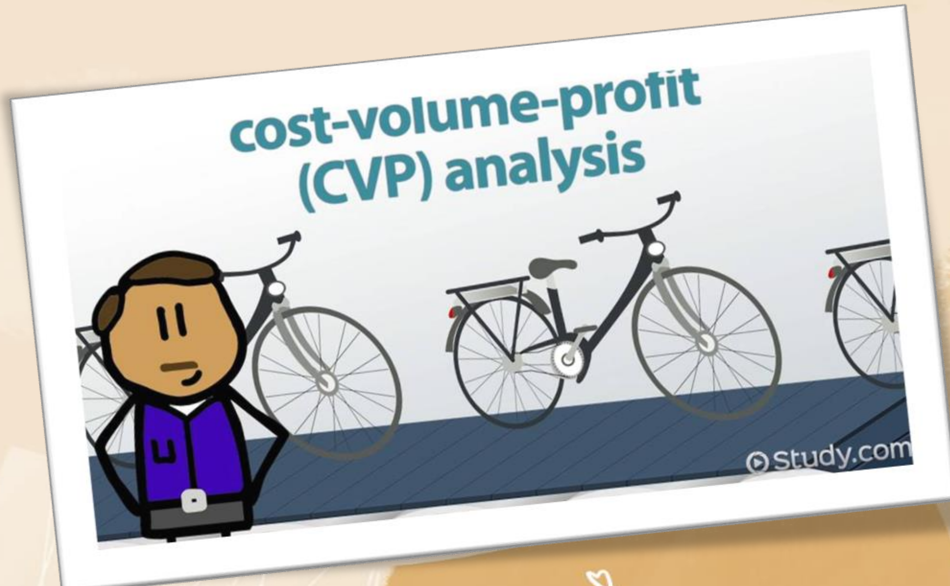
Accountants who fail to abide by the IMA's accounting ethical code face a variety of punishments. Accountants may lose their professional certification, be removed from accounting positions and face legal penalties depending on their inappropriate actions. Managerial accountants who do not disclose inappropriate accounting operations in their company also can be held liable. Maintaining the general public's trust in companies is a primary responsibility of managerial accountants.

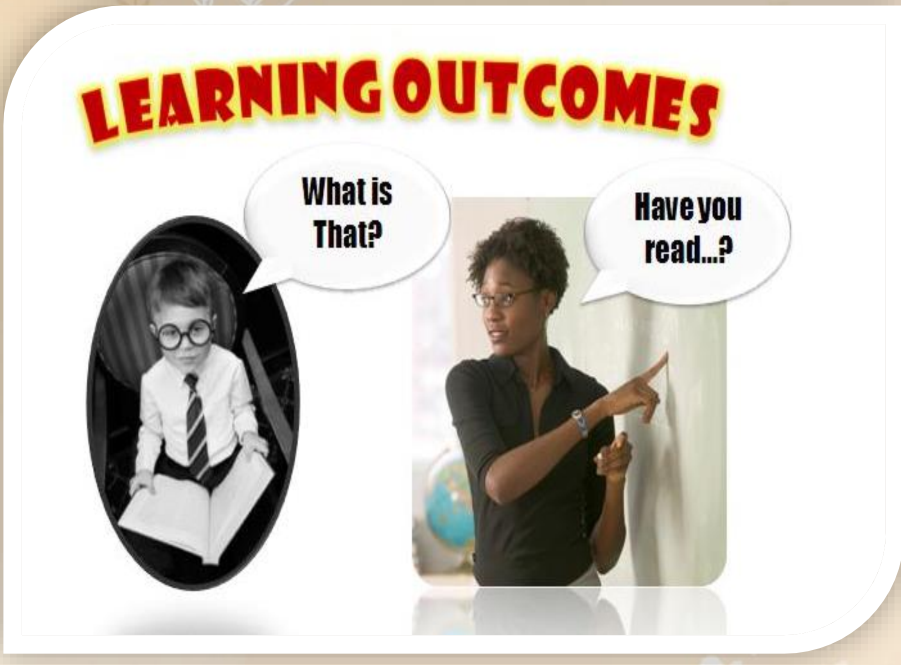


SAMPLE OF QUESTIONS

1. List some of the management strategies in the contemporary business process .
2. Explain what is the balanced scorecard and strategy map.
3. Briefly explain what is the value chain.
4. What is Life-cycle costing?
5. Discuss what is lean accounting.
6. Define management accounting information.
7. What is characteristics of management accounting information?
8. Why the management accounting information must be comparable?
9. Explain what is the relevant information in management accounting.
10. Discuss ethics based on Institute of Management Accountants (IMA)

Cost - Volume - Profit (CVP) analysis

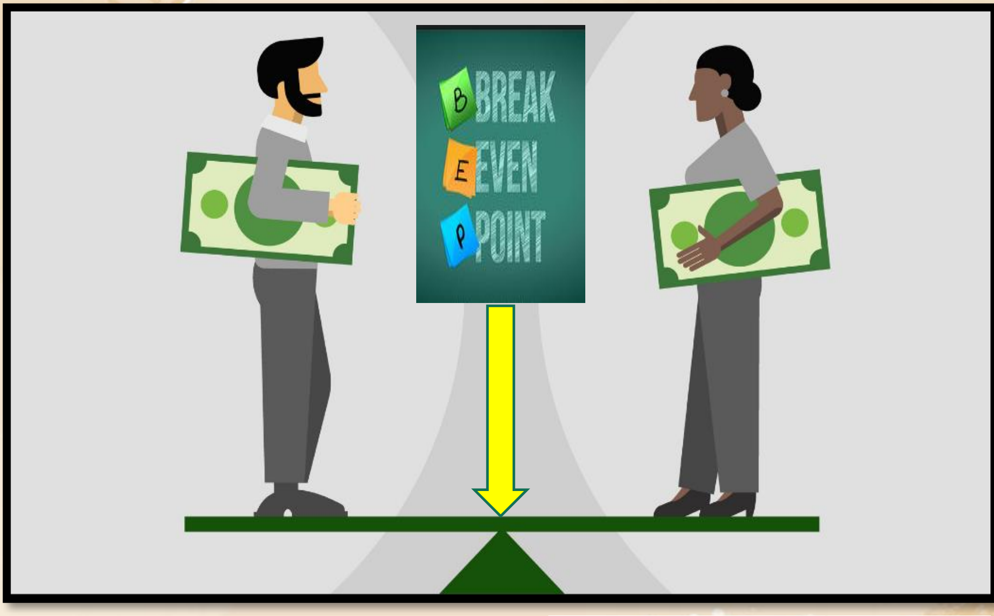




Understand Cost-Volume-Profit Analysis

Know the Break-Even point (BEP) approach in cost-volume-profit analysis

Evaluate the changes in costs and revenues



NO LOSS

NO PROFIT

Cost-Volume-Profit Analysis

To help management to understand the **relationships** between cost, sales volume and profit.

This analysis can help to make better business decisions.

This techniques focuses on how selling prices, sales volume, variable costs, fixed costs and the mix of product sold **AFFECTS** profit.

Cost-Volume-Profit Analysis

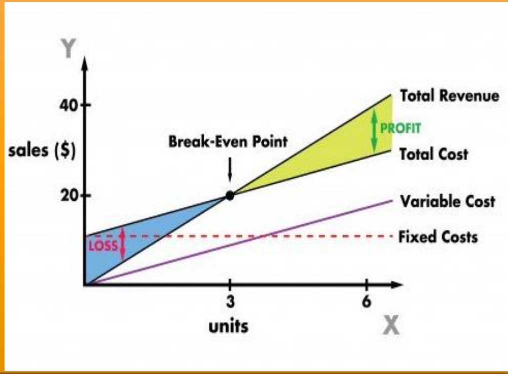
Break-Even Point (BEP)

- One of the application used in CVP analysis
- At this **level of sales (sales quantity)**, there is **NO** profit or **NO** loss **OR**

Revenue = Expenses

Methods of Determining the Break-Even Point (BEP)

GRAPHICAL



Mathematical Equation

At BEP, Profit = 0

BEP IN UNITS(x) = SALES PRICE(x) –VARIABLE COST(x) – FIXED COST = PROFIT

BEP IN MONEY (RM) = BEP UNITS X SELLING PRICE P/U

Contribution Margin (CM)

Sales price p/u – variable cost p/u

BEP IN UNITS = FIXED COST / CM P/U

BEP IN MONEY (RM) = BEP UNITS X SELLING PRICE P/U

EXERCISES

QUESTION 1

AAA Company produce a type of product and sell it with the price of RM 10.00 per unit. Variable cost per unit is RM 6.00 and fixed cost is RM 60,000 per year. Normal unit sales is 25,000

Using the same question above, calculate the following based on mathematical equation, contribution margin and graphical method:

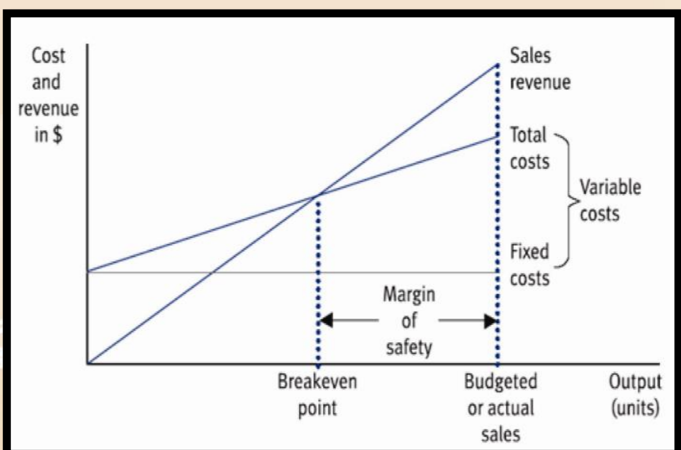
i. Break-even points in units

ii. Break-even point in sales value

MARGIN OF SAFETY(MOS)

Precautions to avoid drop in sales more than the MOS

Difference between actual/expected sales and break-even sales



FORMULA

Margin of safety formula

- The difference between the **planned number of units** or **actual sales** and the **number of units of sales at break even point.**

Cans of coke: They can make:

- 10,000 cans potentially – 8,000 actual units at break even
- = 2,000 Margin of safety

MOS (UNITS)= Actual / Expected sales volume – Break-even sales volume

MOS (RM)= (Actual / Expected sales volume – Break-even sales volume)* Sales Price

MOS (%) = $\dfrac{\text{Actual sales – Break-even sa}}{\text{Actual sales}}$ x 100

EXERCISES

QUESTION 2

Haa Haa Company process a type of drinks sold at a price of RM 5 per bottle. Following particulars is regards to the estimation production cost and sale of drink for next year .

Variable cost per bottle	RM 3.00
Fixed cost per year	RM 20,000

Haa Haa Company planning to process and sell 25,000 bottles next year.

Calculate:

i. Contribution margin per unit

ii. Break-even points in units

iii.Break-even point in sales value

iv.Margin of safety (units)

v.Margin of safety (RM)

vi.Margin of safety (%)

EXERCISES

QUESTION 3

Sama Jaya Enterprise is a manufacturer of famous cake in Kuala Nerus. The business sold 4500 pieces of cakes at RM 55.00 per piece. The variable cost to make a piece of cake is RM 15.00 and the fixed cost is RM 60 000 per year.

You are required to:

i. Determine the number of cake that the company has to sell to achieve break-even-point.

ii. Using the equation method , calculate the numbers of cake that the company has to sell to gain a profit of RM 45 000.

iii. Calculate the margin of safety in sales value (RM) and in percentage for the company.

EXERCISES

QUESTION 4

Comel Enterprise is a wholesaler for shawls. The business sales and expenses information for November is as follow:

Sales (500 piece)	RM 85 000
Variable expenses	RM 35 000
Fixed expenses	RM 17 000

You are required to:

i. Calculate the business's break-even-point in units and value (RM)

ii. Compute margin of safety in value (RM)

iii. Due to fluctuation of the economy, the business estimates that the variable cost will increase by RM 8.00 per piece. The selling price and fixed cost will remain the same. How many pieces of shawls should Comel Enterprise sell to achieve a profit of RM 10 000?

Scan me
for answer

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