Accounting In Society

ACCG100: Comprehensive Notes

SESSION 1, 2017

MACQUARIE UNIVERSITY

BLUE TEXT – Titles and subheadings

BLACK (BOLDED & ITALICISED) – Key terms

Underlined – Essential concepts that require emphasis

$\mathit{Green\ Text}$ – Important equations or relationships

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WHAT IS ETHICS?

The business world control countless resources, and makes decisions that affect the lives of millions of people. Hence it is important for businesses to practice sound ethical philosophies. Whilst morals & ethics are often used interchangeably, they are not the same.

- Ethics originate from a social system that is external to the individual. People practice good ethics in order to meet *society's* expectation of what is the right thing to do. ***ETHICS*** deals with human conduct in relation to what is morally right and wrong. It is the application of a system of moral principles to decision making.
- ***MORALS*** are internal to the individual, stemming from individual beliefs or religious values.

CLASSIFICATION OF ETHICAL THEORIES

General methods are used as a guide to avoid and resolve ethical issues. There exist two main classifications of ethical theories:

1. ***TELEOLOGICAL/CONSEQUENTIALISM ETHICS***: The consequence of a decision is the sole determinant of what is right from wrong. The process that produces the result is less important than the outcome itself. Thus, actions are ethically correct when benefits outweigh costs, and the greatest good is provided to the greatest number. The main limitation is that emphasis is placed on the majority, which may abuse individual or minority rights.
2. ***DEONTOLOGICAL/IDEALISTIC ETHICS***: The intention to do the right thing is more important than the final result. An action is ethically correct if it is motivated by a good will that stems from a sense of duty. Consequences are not important at all. It is wrong take advantage of people to achieve a certain end.

EXAMPLE 1: Jenny works as an accountant at a local audit firm. During a stocktake audit at one of her clients, ABC Trading, at year end, she found that the value and units of inventory reported in the financial statements are substantially higher than the actual value/units of inventory owned by ABC Trading. Jenny brought the matter up with the Managing Director of ABC Trading, Steven. Steven suggested to Jenny that if she kept quiet about the misstatement of inventory, he would pay her $10,000. He would adjust the inventory figures in subsequent years, and nobody would know it. "If I pay you $10,000, you could sign off on the accounts. It would not happen again, and you would be $10,000 richer. Nobody else would need to know, and we would both be better off for it" stated Steven. "Of course, we could always hire another audit firm if you didn't agree".

a) What are the ethical issues?

- The misstating of inventory information in the financial statements is an ethical issue. Stakeholders will think the business has a better inventory position than it actually has, as the inventory value is overstated. This negatively affects the decision-making of stakeholders, as they do not have reliable information.
- The misstatement is *intentional*, not just a mistake. The management is attempting to deceive the stakeholders.

b) What is the ethical dilemma experienced by Jenny?

The ethical dilemma faced by Jenny is whether she should report the misstatement issue or accept the $10,000 bribe from Steven and sign off on the accounts.

b) Assuming that Jenny chose to reject the bribe, what may be her justification for doing so under the teleological ethics as opposed to the deontological ethics?

Teleological
- Jenny believes that the costs of bribery (harm to her career and possible jail time) far outweigh the benefit (i.e. $10,000) obtained, so she rejects the bribe.
- Jenny could inform the Board of Directors about Steven, who would get the sack.

Deontological
- Jenny believes that bribery is unethical and dishonest, regardless of the consequences. Even if the bribe is never uncovered, it would still be wrong.
- Jenny would not want to have someone else steal resources from her, so why would she assist such behaviour?

APES110 CODE OF ETHICS

Many companies and professional bodies have developed their own code of ethics. The two major accounting bodies in Australia have a joint code of ethics knows as the ***APES110 CODE OF ETHICS*** for professional accountants, issued by the Australia Professional & Ethical Standards Board (APESB). This code of ethics features five fundamental principles:

1. ***INTEGRITY***: be straightforward and honest in all professional and business relationships
2. ***OBJECTIVITY***: Professional judgement should not be compromised because of bias, conflict of interest or the undue influence of others.
3. ***PROFESSIONAL COMPETENCE & DUE CARE***: Perform professional services with due care, competence and diligence. Carry out work in accordance with relevant technical and professional standards. Maintain knowledge and skills at the level required, which may involve training. Refrain from performing services that you are not qualified to carry out.
4. ***CONFIDENTIALITY***: Must not disclose outside of the firm, confidential information acquired as result of professional relationships, unless the client authorises it or there is a legal duty to disclose it. Refrain from using confidential information to your advantage or the advantage of third parties.
5. ***PROFESSIONAL BEHAVIOUR***: members must comply with relevant laws and regulations. Conduct yourself in a manner consistent with the good reputation of the profession and refrain from any misconduct that might discredit the profession.

Other than these 5 fundamentals, the APES110 Code of ethics also has the following ethical requirements of independence:

1. ***INDEPENDENCE OF MIND***: (how you judge your own independence) a state of mind which permits the expression of a conclusion without being affected by influences that compromise professional judgement. Do not consider unethical behaviour.
2. ***INDEPENDENCE IN APPEARANCE*** (how others view your work and how independent you are): There should be avoidance of facts and circumstances that are so significant that an informed third party would reasonably conclude that you are not acting independently. Do not place yourself in compromising positions.

EXAMPLE 2: Assuming that Jenny chose to accept the bribe and did not report the matter, what fundamental principles in APES 110 Code of Ethics would she breach and why?

- Integrity - Jenny would not have been straightforward and honest in her business relationships.
- Objectivity - Jenny would compromise her professional judgement by accepting the $10,000 for her personal benefit.
- Professional behaviour - Jenny would not have complied with the relevant laws and regulations, as being an accomplice to fraud and benefiting from it is illegal.

Lecture 11 – Management Accounting: Cost-Volume-Profit Analysis

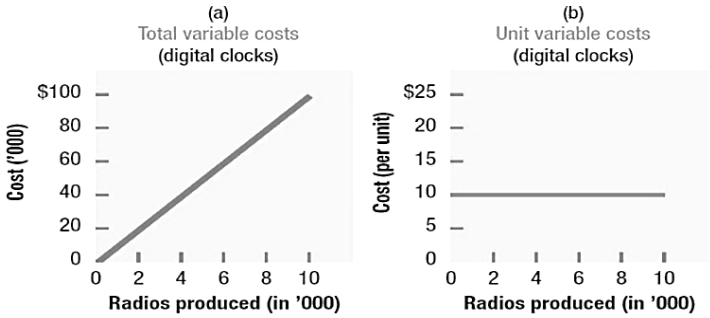
COST-BEHAVIOUR ANALYSIS

COST-BEHAVIOUR ANALYSIS studies how specific costs respond to changes in the *level of business activity*. When business activity increases, some costs will remain the same whilst others change drastically. Such behaviour of costs can be categorised as either variable or fixed.

$$\boldsymbol{total\ cost = total\ fixed\ cost + total\ variable\ cost}$$

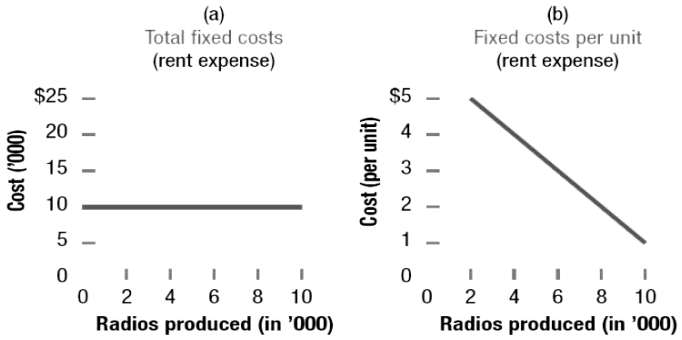
1. ***VARIABLE COSTS*** are costs that vary in total directly and proportionately with changes in business activity level. If activity increases by $x\%$, then total variable costs will also increase by $x\%$. Although the ***total variable cost*** varies with changes in volume of activity, the ***variable cost per unit*** stays constant. EXAMPLES: direct materials, direct labour, sales commissions & cost of sales.

   $$\boldsymbol{variable\ cost\ per\ unit = \frac{total\ variable\ cost}{units\ of\ activity\ level}}$$



2. ***FIXED COSTS*** are costs which remain relatively constant in total, regardless of changes in business activity level. As activity level increases, total fixed costs are shared by a larger pool of outputs. Whilst the ***total fixed cost*** remains constant, the ***fixed cost per unit*** actually decreases as activity level increases. EXAMPLES: rent, insurance, taxes, supervisory salaries and building depreciation.

   $$\boldsymbol{fixed\ cost\ per\ unit = \frac{total\ fixed\ cost}{units\ of\ activity\ level}}$$



Entities that rely heavily on labour are likely to have many variable costs. In contrast, automated factories that predominantly use machinery will have fewer variable costs. The current trend in the manufacturing industry is to have more fixed costs and fewer variable costs.

COST-VOLUME-PROFIT ANALYSIS

CVP ANALYSIS or ***COST-VOLUME-PROFIT ANALYSIS*** studies how profit is affected by changes in costs and sales volume. CVP analysis is important in profit planning, setting prices and determining the sales mix. Five ***ASSUMPTIONS OF CVP ANALYSIS***:

1. The behaviour of both costs and revenues is linear within the relevant range of activity. E.g. if a variable cost is 20% of sales revenue, we assume that this percentage will not change.
2. All costs can be classified as either variable or fixed with reasonable accuracy.
3. Changes in activity are the only factors that affect costs.
4. All units produced are sold.
5. When more than one product is sold, the sales mix remains constant.

These assumptions also act as limitations. When any one of these five assumptions is not satisfied, the results of CVP analysis become inaccurate. CVP analysis is a *short-term* decision-making tool, as all the costs are variable in long-term.

4 KEY RELATIONSHIPS OF CVP ANALYSIS

There are four key relationships in CVP analysis:

1. ***CONTRIBUTION MARGIN (CM)*** refers to the amount of revenue that remains after having deducted variable costs. This can be expressed as a total amount, on a per-unit basis, or as a ratio. It indicates the amount of sales revenue that is still available to cover fixed costs and contribute to profit.

   $$\boldsymbol{contribution\ margin = total\ revenue - total\ variable\ costs}$$
   $$\boldsymbol{contribution\ margin\ per\ unit = unit\ selling\ price - unit\ variable\ cost}$$
   $$\boldsymbol{contribution\ margin\ ratio = \frac{contribution\ margin\ per\ unit}{unit\ selling\ price}}$$

   EXAMPLE 1: Trafford Ltd sells iPods for $200 and the costs to produce the iPods include:
   Direct materials worth $35
   Direct labour of 1.5 hours @ $20 per hour
   Variable MOH of $33 per unit.
   Calculate the contribution margin per unit and the contribution margin ratio

   $contribution\ margin\ = 200 - (35 + (1.5 \times 20) + 33) = \$102/unit$
   For every iPod sold, Trafford Ltd will have $102 to cover fixed costs and contribute to profit.
   $contribution\ margin\ ratio = \frac{\$102}{\$200} = 0.51$
   This indicates that 51 cents of each dollar of sales is available to cover fixed costs and to contribute to profit.

2. ***BREAK-EVEN POINT (BEP)*** refers to the level of activity at which total revenues equal total costs, both fixed and variable. At this point, activity results in zero loss and zero profit. Break-even point is useful for deciding whether to introduce new product lines, change sales prices, or enter new market areas. Break-even point can be expressed in terms of *sales dollars* or *sales units*. Read the question carefully to see which unit is being asked for, as each has a unique formula. BEP can be determined using either one of two equations:

   - ***MATHEMATICAL EQUATION***: Usually $profit = total\ sales - total\ costs$. Since total profit is zero:
     $\boldsymbol{break\text{-}even\ sales\ (dollars) = variable\ costs + fixed\ costs}$
   - ***CONTRIBUTION MARGIN APPROACH*** Break-even point can be defined in terms of:
     - ***SALES UNITS***: $\boldsymbol{break\text{-}even\ point\ in\ units = \frac{fixed\ costs}{contribution\ margin\ per\ unit}}$
     - ***SALES DOLLARS***: $\boldsymbol{break\text{-}even\ point\ in\ dollars = \frac{fixed\ costs}{contribution\ margin\ ratio}}$

     **These two formulas should produce the same result.*

   EXAMPLE 2: Edwards Ltd makes books that sell for $40 each. For the coming year, management expects fixed costs to total $440 000 and variable costs to be $18 per unit.

   (a) Calculate break-even sales in dollars using the mathematical equation
   $break\text{-}even\ point\ in\ dollars = variable\ costs + fixed\ costs$
   $x = \left(\frac{\$18}{\$40}\right)x + \$440\ 000 \rightarrow x = 0.45x + \$440\ 000 \therefore x = \$800\ 000$
   Sales must be $800 000 for Edwards Ltd to break even.

   (b) Calculate break-even sales in units and dollars using the contribution margin approach
   $CM\ per\ unit = \$40 - \$18 = \$22$
   $BEP\ in\ units = fixed\ costs : CM\ per\ unit = \$440\ 000 : \$22 = 20\ 000\ units$
   Edwards Ltd must sell 20 000 units to break even. If answer is a decimal, round up to the next integer.

$BEP\ in\ dollars = fixed\ costs : CM\ ratio = \$440\,000 : \left(\frac{22}{40}\right) = \$440\,000 : 0.55 = \$800\,000$

OR $BEP\ in\ dollars = BEP\ in\ units \times unit\ selling\ price = \$20\,000 \times \$40 = \$800\,000$

3. ***MARGIN OF SAFETY*** refers to the excess of actual sales above the break-even point. It represents the amount by which sales can drop before a loss is incurred. A higher positive margin of safety indicates a lower risk of business loss. Margin of safety can be expressed in dollars or as a ratio.

$$\boldsymbol{margin\ of\ safety\ (in\ dollars) = \ actual\ sales - break\text{-}even\ sales}$$

$$\boldsymbol{margin\ of\ safety\ ratio\ (as\ a\ percentage) = \frac{margin\ of\ safety\ (in\ dollars)}{actual\ sales}}$$

EXAMPLE 3: Based on the information provided in the previous example, calculate the margin of safety (both in dollar value and percentage) assuming actual sales are $1 000 000.

• $Margin\ of\ safety\ (in\ dollars) = \ actual\ sales - break\text{-}even\ sales = \$1\,000\,000 - \$800\,000 = \$200\,000$
• $Margin\ of\ safety\ (in\ percentage) = margin\ of\ safety\ (in\ dollars) : actual\ sales = \$200\,000 : \$1\,000\,000 = 20\%\ or\ 0.2$
Edwards Ltd will still be profitable as long as sales do not drop by more than 20%.

4. ***TARGET PROFIT*** is a profit objective set by management for a particular product line. It represents the sales necessary to achieve a specified level of profit. Target profit can be determined using:
   - ***MATHEMATICAL EQUATION***
     $$\boldsymbol{required\ sales = variable\ costs + fixed\ costs + target\ profit}$$
   - ***CONTRIBUTION MARGIN APPROACH***
     $$\boldsymbol{required\ sales\ (in\ dollars) = \frac{fixed\ costs + target\ profit}{contribution\ margin\ ratio}}$$

EXAMPLE 4: Based on the information in Example 2, calculate the sales required to earn profit of $330 000 using both mathematical equation and contribution margin approach.

• Mathematical equation: Required sales = Variable costs + Fixed costs + Target profit
$X = 0.45X + \$440\,000 + \$330\,000 \rightarrow X = \$\mathbf{1\,400\,000}$
• Contribution margin approach (Fixed costs + Target profit): CM ratio = Required sales
$(\$440\,000 + \$330\,000) : 0.55 = \$1\,400\,000$