DIFFERENTIAL ANALYSIS

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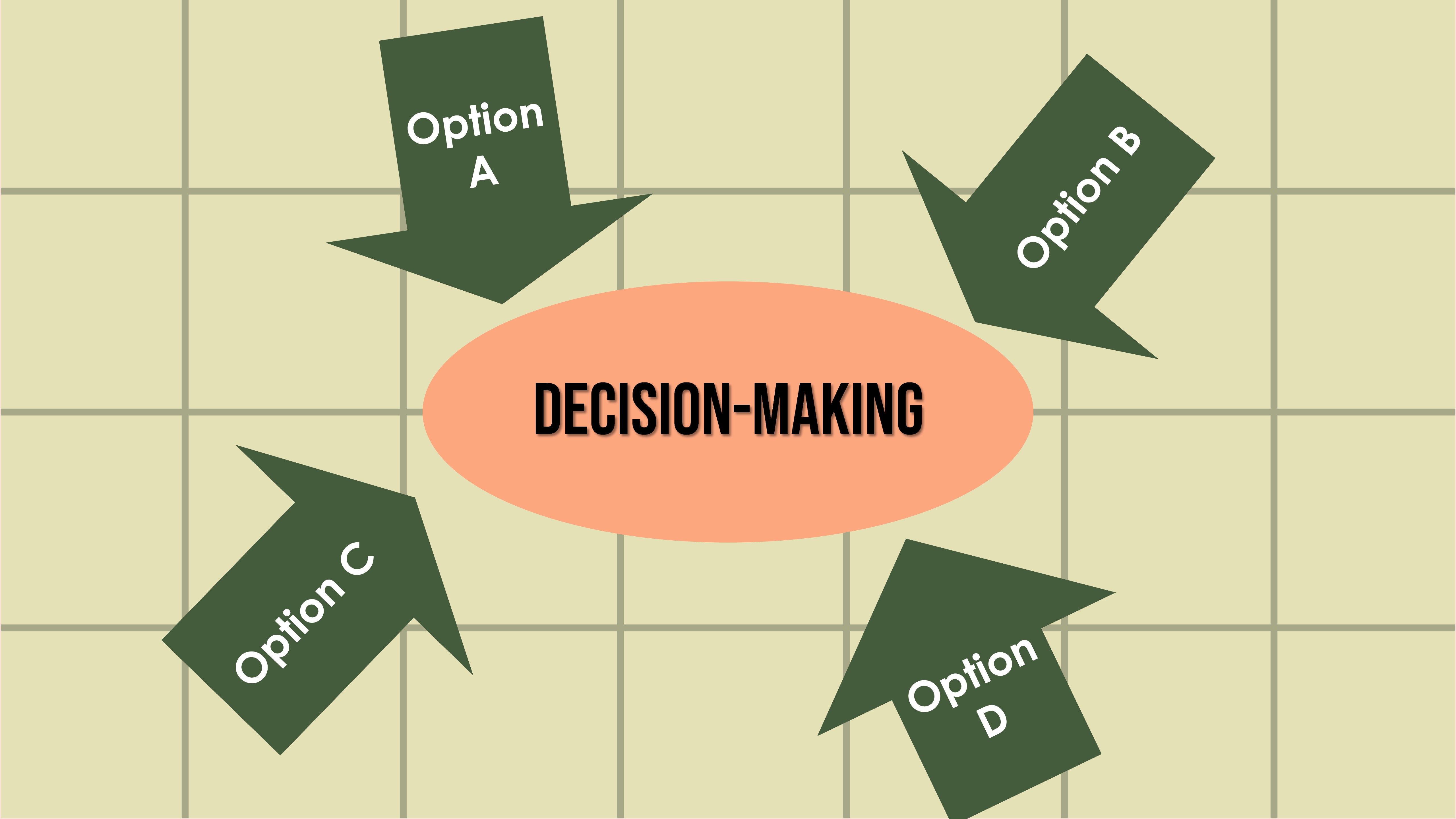
LEARNING OBJECTIVES

At the end of the session, students should be able to:

- Understand the purpose of differential analysis
- Perform different types of decisions involving differential analysis


DECISION-MAKING
Option A
Option B
Option C
Option D

DIFFERENTIAL ANALYSIS

- **Incremental Analysis**
- Process used to identify the financial data that change under alternative courses of action
- Costs and/or revenues may vary

	Alternative A	Alternative B	Differential Amount	Is Alternative A HIGHER or LOWER
Revenues	125,000 PhP	110,000 PhP	5,000 PhP	HIGHER
Cost	100,00	80,000	20,000	HIGHER
Net Income	25,000	30,000	-5,000	LOWER

RELEVANT COST

- Only factors considered are costs and revenues that differ across alternatives

OPPORTUNITY COST

- Lost opportunity to benefit from some other course of action

SUNK COST

- Costs that have already been incurred and won’t be changed/avoided by any present/future decisions

TYPES OF DIFFERENTIAL ANALYSIS

Common types of decisions that involve differential analysis:

1. Accept an order at a special price
2. Make or buy component parts or finished products
3. Sell products or process them further
4. Repair, retain, or replace equipment
5. Eliminate an unprofitable business segment or product

SPECIAL ORDERS

DIFFERENTIAL REVENUE FROM ADDITIONAL BUSINESS

DIFFERENTIAL COSTS OF PRODUCTION & DELIVERY

At full operating capacity, wht Cosmetics produce 12,500 lipsticks. Current sales and production are averaging 10,000. The manufacturing costs are 20 PhP per lipstick consisting of variable costs at 12.50 PhP and fixed costs at 7.50 PhP. The usual selling price of the product to retailers is 30 PhP. wht Cosmetics receives from an exporter an offer of 2,000 lipsticks at 18 PhP each. Acceptance of offer would not affect the normal sales of the product, and additional units can be manufactured without increasing plant capacity. What should the management do?

MAKE OR BUY

wht Cosmetics have been outsourcing its labels at 24.0 PhP per unit. This contributes to 6.50 PhP of fixed factory overhead. On the other hand, the cost per unit of manufacturing its labels internally, including fixed costs, is as follows

Direct materials	8.00
Direct labor	8.00
Variable factory overhead	5.20
Fixed factory overhead	6.80
Total cost per unit	28.00

Should the company make its labels or continue outsourcing?

PROCESS OR SELL

DIFFERENTIAL REVENUE FROM FURTHER PROCESSING

DIFFERENTIAL COSTS OF FURTHER PROCESSING wht Cosmetics sells a gallon of unpackaged lip gloss for 50.0 PhP. The cost to manufacture it is as follows

Direct materials	15.00
Direct labor	10.00
Variable factory overhead	6.00
Fixed factory overhead	4.00
Total cost per unit	35.00

A gallon of packaged lip gloss can be sold at 60.0 PhP. For a finished unit, direct materials will increase by 2.00 PhP, direct labor by 4.00 PhP, and variable manufacturing overhead costs by 2.40 PhP. There will be no increase in the fixed factory overhead costs. Should the company sell unpackaged lip gloss of process it further?

REPAIR, RETAIN, OR REPLACE

FUTURE COSTS OF CONTINUING TO USE THE EQUIPMENT

REPLACEMENT

wht Cosmetics has a manufacturing machine for lipstick that has a book value of 4,000,000 PhP. It has a remaining useful life of 4 years. The company is considering to replace this machine with a new one that costs 12,000,000 PhP. If the new machine is bought, the variable manufacturing costs are expected to decrease from 16,000,000 to 12,500,000 PhP annually. The old unit could be sold for 500,000 PhP. Should the company retain or replace the manufacturing machine?

DISCONTINUE

ELIMINATION OF THE PRODUCT'S VARIABLE COST

NO DECREASE OR INCREASE IN FIXED COST

wht Cosmetics manufactures perfumes. For 2018, the perfume line has sales of 400,000 PhP, variable expenses of 310,000 PhP, and fixed expenses of 120,000 PhP. Therefore, the perfume line had a net loss of 30,000 PhP. If wht Cosmetics eliminates the perfume line, 20,000 PhP of fixed costs will remain. Should the company discontinue its perfume line?

REFERENCES

Warren, et al. (2005). *Financial & Managerial Accounting*. Thomson South-Western: Ohio.

Weygandt, J. J., Kimmel, P. D., & Kieso, D. E. (2019). *Accounting Principles with International Financing Reporting Standards GE*. John Wiley & Sons, Inc.: Singapore.