

Applied Economics

SENIOR
HIGH
SCHOOL

Minimizing and Maximizing Business's
Impact: Cost-benefit Analysis

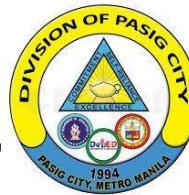
Self-Learning
Module

16

Quarter 4



ACCOUNTANCY, BUSINESS AND MANAGEMENT



Applied Economics

Quarter 4 – Self-Learning Module 16: Minimizing and Maximizing Business’s

Impact: Cost-benefit Analysis

First Edition, 2020

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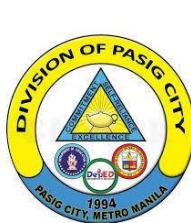
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Introductory Message

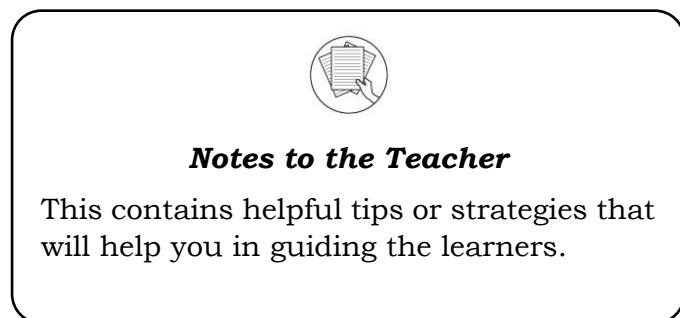
For the facilitator:

Welcome to the Senior High School – Applied Economics Self Learning Module on Minimizing and Maximizing Business's Impact: Cost-benefit Analysis!

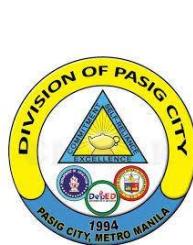
This Self-Learning Module was collaboratively designed, developed and reviewed by educators from the Schools Division Office of Pasig City headed by its Officer-in-Charge Schools Division Superintendent, Ma. Evalou Concepcion A. Agustin, in partnership with the City Government of Pasig through its mayor, Honorable Victor Ma. Regis N. Sotto. The writers utilized the standards set by the K to 12 Curriculum using the Most Essential Learning Competencies (MELC) in developing this instructional resource.

This learning material hopes to engage the learners in guided and independent learning activities at their own pace and time. Further, this also aims to help learners acquire the needed 21st century skills especially the 5 Cs, namely: Communication, Collaboration, Creativity, Critical Thinking, and Character while taking into consideration their needs and circumstances.

In addition to the material in the main text, you will also see this box in the body of the module:



As a facilitator you are expected to orient the learners on how to use this module. You also need to keep track of the learners' progress while allowing them to manage their own learning. Moreover, you are expected to encourage and assist the learners as they do the tasks included in the module.



For the learner:

Welcome to the Applied Economics Self Learning Module on Minimizing and Maximizing Business's Impact: Cost-benefit Analysis!

This module was designed to provide you with fun and meaningful opportunities for guided and independent learning at your own pace and time. You will be enabled to process the contents of the learning material while being an active learner.

This module has the following parts and corresponding icons:



Expectations - This points to the set of knowledge and skills that you will learn after completing the module.



Pretest - This measures your prior knowledge about the lesson at hand.



Recap - This part of the module provides a review of concepts and skills that you already know about a previous lesson.



Lesson - This section discusses the topic in the module.



Activities - This is a set of activities that you need to perform.



Wrap-Up - This section summarizes the concepts and application of the lesson.



Valuing - This part integrates a desirable moral value in the lesson.



Posttest - This measures how much you have learned from the entire module.





EXPECTATIONS

After going through this module, you are expected to:

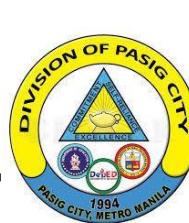
1. define cost-benefit analysis; and
2. understand the process of cost-benefit analysis.



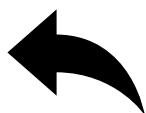
PRETEST

Directions: Choose the letter of the best answer and write it on a separate sheet of paper.

1. Which of the following is TRUE about the cost-benefit analysis?
 - A. A cost-benefit analysis should begin with compiling a comprehensive list of the costs and benefits associated with the project or decision
 - B. Cost-benefit analysis involves measurable financial metrics such as revenue earned and costs saved as a result of the decision to pursue a project.
 - C. A cost-benefit analysis is a process that the businesses use to analyze decisions.
 - D. All of the above
2. Which of the following statements is NOT TRUE?
 - A. A cost-benefit analysis is a technique which compares the relative costs to the effects of two or more courses of action.
 - B. Cost-Benefit Analysis estimates and totals up the equivalent money value of the benefits and costs to the community of projects.
 - C. Direct costs would be direct labor involved in manufacturing, inventory, raw materials, and manufacturing expenses.
 - D. None of the above
3. Which of the following costs is NOT INCLUDED in the cost-benefit analysis?
 - A. Direct costs
 - B. Indirect costs
 - C. Opportunity costs
 - D. None of above



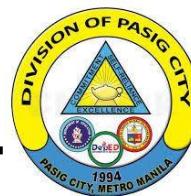
4. Which of the following statements is TRUE?
- A. If there is more than one mutually exclusive project that has positive net present value then there is a need for further analysis.
 - B. A major disadvantage of cost-benefit analysis lies in forcing people to explicitly and systematically consider the various factors which should influence the strategic choice.
 - C. Both A and B are correct.
 - D. None of the above
5. Which of the following benefits is INCLUDED in the cost-benefit analysis?
- A. Revenue and sales increase from increased production or new product.
 - B. Intangible benefits, such as improved employee safety and morale, as well as customer satisfaction due to enhanced product offerings or faster delivery.
 - C. Competitive advantage or market share gained as a result of the decision.
 - D. All of the above



RECAP

Directions: Differentiate positive and negative externalities. Write your answer in the table below.

In terms of...	Positive Externality	Negative Externality
definition		
effects to the community		
example		





LESSON

Cost-benefit Analysis

A Cost-benefit Analysis (CBA) is a process that the businesses use to analyze decisions. It is used most often at the start of a program or project when different options or courses of action are being appraised and compared, as an option for choosing the best approach. It can also be used, however, to evaluate the overall impact of a program in quantifiable and monetized terms.

CBA adds up the total costs of a program or activity and compares it against its total benefits. The technique assumes that a monetary value can be placed on the costs and benefits of a program, including tangible and intangible returns to other people and organizations in addition to those immediately impacted. As such, a major advantage of cost-benefit analysis lies in forcing people to explicitly and systematically consider the various factors which should influence the strategic choice.

Decisions are made through CBA by comparing the net present value (NPV) of the program or project's costs with the net present value of its benefits. Decisions are based on whether there is a net benefit or cost to the approach, i.e. total benefits less total costs. Costs and benefits that occur in the future have less weight attached to them in a cost-benefit analysis. To account for this, it is necessary to 'discount' or reduces the value of future costs or benefits to place them on a par with costs and benefits incurred today. The 'discount rate' will vary depending on the sector or industry, but public sector activity generally uses a discount rate of 5-6%. The sum of the discounted benefits of an option minus the sum of the discounted costs, all discounted to the same base date, is the 'net present value' of the option.

If the discounted present value of the benefits exceeds the discounted present value of the costs then the project is worthwhile. This is equivalent to the condition that the net benefit must be positive. Another equivalent condition is that the ratio of the present value of the benefits to the present value of the costs must be greater than one. If there is more than one mutually exclusive project that has positive net present value then there has to be further analyzed. From the set of mutually exclusive projects the one that should be selected is the one with the highest net present value. If the funds required for carrying out all of the projects with positive net present value are less than the funds available this means the discount rate used in computing the present values is too low and does not reflect the true cost of capital.

The impacts of a project are defined for a particular study area, be it a city, region, state, nation, or the world. The nature of the study area is usually specified by the organization sponsoring the analysis. Many effects of a project may "net out" over one study area but not over a smaller one. The specification of the study area may be arbitrary but it may significantly affect the conclusions of the analysis.



The Cost-Benefit Analysis Process

A cost-benefit analysis should begin with compiling a comprehensive list of the costs and benefits associated with the project or decision.

The costs involved in a CBA might include the following:

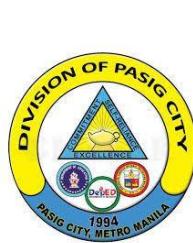
1. Direct costs would be direct labor involved in manufacturing, inventory, raw materials, and manufacturing expenses.
2. Indirect costs might include electricity, overhead costs from management, rent, and utilities.
3. Intangible costs of a decision, such as an impact on customers, employees, or delivery times.
4. Opportunity costs such as alternative investments, or buying a plant versus building one.
5. Cost of potential risks such as regulatory risks, competition, and environmental impacts.

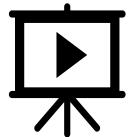
Benefits might include the following:

1. Revenue and sales increase from increased production or new product.
2. Intangible benefits, such as improved employee safety and morale, as well as customer satisfaction due to enhanced product offerings or faster delivery.
3. Competitive advantage or market share gained as a result of the decision.

An analyst or project manager should apply a monetary measurement to all of the items on the cost-benefit list, taking special care not to underestimate costs or overestimate benefits. A conservative approach with a conscious effort to avoid any subjective tendencies when calculating estimates is best suited when assigning a value to both costs and benefits for a cost-benefit analysis.

Finally, the results of the aggregate costs and benefits should be compared quantitatively to determine if the benefits outweigh the costs. If so, then the rational decision is to go forward with the project. If not, the business should review the project to see if it can make adjustments to either increase benefits or decrease costs to make the project viable. Otherwise, the company should likely avoid the project.





ACTIVITIES

Activity: My Cost-Benefit Analysis

Directions: Observe and analyze the scenarios in the community. Think of the three (3) projects that you want to study using the cost-benefit analysis.

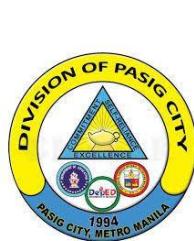
Scenario	Details of the Project	Reasons for the conduct



WRAP-UP

To summarize what you have learned in the lesson, answer the following questions:

1. What is the cost-benefit analysis?
2. What are the procedures in conducting a cost-benefit analysis?





VALUING

Reflect on this!

"Little changes cost you. Big changes benefit you by changing the game, but only if you go first."

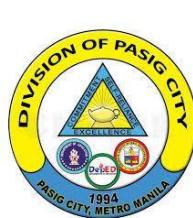
— Seth Godin



POSTTEST

Directions: Read each statement carefully. Write **T** if the statement is correct, otherwise write **F**.

- _____ 1. A cost-benefit analysis should begin with compiling a comprehensive list of all the costs and benefits associated with the project or decision.
- _____ 2. The cost-benefit analysis adds up the total costs of a program or activity and compares it against its total benefits.
- _____ 3. A major disadvantage of cost-benefit analysis lies in forcing people to explicitly and systematically consider the various factors which should influence the strategic choice.
- _____ 4. A cost-benefit analysis is a technique that compares the relative costs to the effects of two or more courses of action.
- _____ 5. A cost-benefit analysis is a process that the businesses use to analyze decisions.





KEY TO CORRECTION

POSTTEST:	PRETEST:
1. T	1. D
2. T	2. A
3. F	3. D
4. F	4. A
5. T	5. D

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