

# Applied Economics

SENIOR  
HIGH  
SCHOOL

Impact of Business on the Community:  
Efficiency in Perfectly Competitive Markets

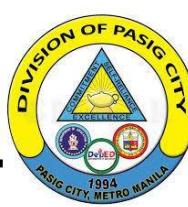
Self-Learning  
Module

13

Quarter 4



ACCOUNTANCY, BUSINESS AND MANAGEMENT



**Applied Economics**

**Quarter 4 – Self-Learning Module 13: Impact of Business on the Community:**

**Efficiency in Perfectly Competitive Markets**

**First Edition, 2020**

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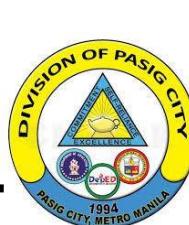
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# Applied Economics

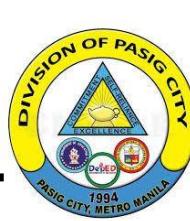
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## Introductory Message

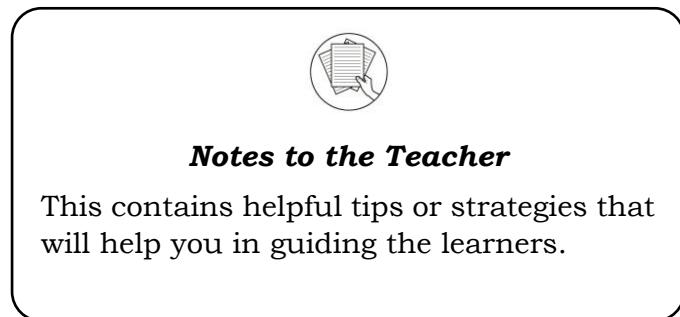
For the facilitator:

Welcome to the Senior High School – Applied Economics Self Learning Module on Impact of Business on the Community: Efficiency in Perfectly Competitive Markets!

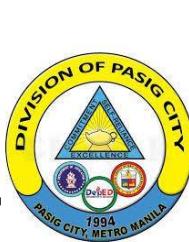
This Self-Learning Module was collaboratively designed, developed and reviewed by educators from the Schools Division Office of Pasig City headed by its Officer-in-Charge Schools Division Superintendent, Ma. Evalou Concepcion A. Agustin, in partnership with the City Government of Pasig through its mayor, 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 Impact of Business on the Community: Efficiency in Perfectly Competitive Markets!

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.



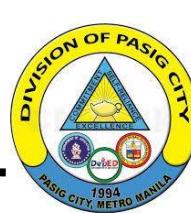
**Wrap-Up** - This section summarizes the concepts and application of the lesson.



**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:

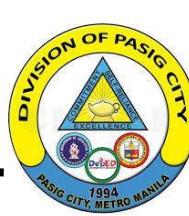
1. discuss the efficiency in perfectly competitive markets;
2. explain the impact of the perfectly competitive markets on the society; and
3. compare the model of perfect competition to the real-world markets.



## PRETEST

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

1. It is the maximum amount for a consumer who is willing to pay for an additional good or service.
  - A. total benefit
  - B. average benefit
  - C. marginal benefit
  - D. none of the above
2. It refers to the change in the total production cost that comes from making or producing one additional unit.
  - A. total cost
  - B. average cost
  - C. marginal cost
  - D. none of the above
3. Prices in an unregulated market economy that has achieved productive efficiency are likely to be \_\_\_\_\_.
  - A. below-average cost
  - B. above-average cost
  - C. equal to the minimum average cost
  - D. none of the above

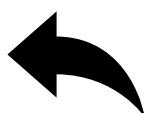


4. Which of the following statements is NOT TRUE?

- A. The market efficiency results from the optimization of resource-use to best serve an economy.
- B. The marginal benefit for a consumer tends to increase as consumption of the good or service increases.
- C. A marginal benefit is an additional satisfaction that consumer receives when the additional good or service is purchased.
- D. None of the above

5. Which of the following statements is NOT TRUE?

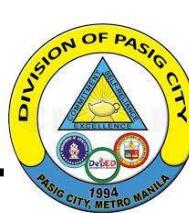
- A. Allocative efficiency means when the mix of goods being produced represents the mix that society most desires.
- B. Productive efficiency means given the available inputs and technology, it's impossible to produce more of one good without decreasing the quantity of another good that's produced.
- C. A marginal benefit is an additional satisfaction that consumer receives when the additional good or service is purchased.
- D. None of the above



## RECAP

Directions: Differentiate the two government policies. Write your answer in the table below.

Government Policy	Definition	Purpose
<b>1. Fiscal Policy</b>		
<b>2. Monetary Policy</b>		





## LESSON

### Efficiency in Perfectly Competitive Markets

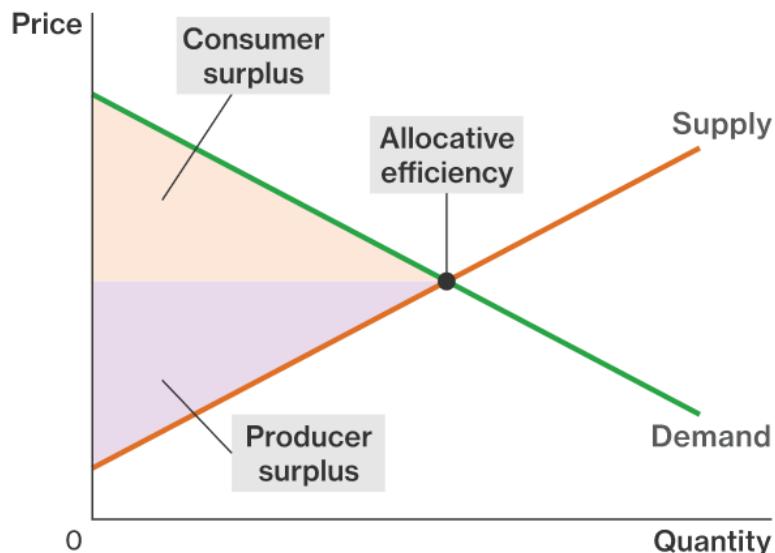
In economics, the marginal cost of production is the change in the total production cost that comes from making or producing one additional unit. Meanwhile, a marginal benefit is the maximum amount for a consumer is willing to pay for an additional good or service. It is also the additional satisfaction or utility that a consumer receives when the additional good or service is purchased. The marginal benefit for a consumer tends to decrease as consumption of the good or service increases. When profit-maximizing firms in perfectly competitive markets combine with utility-maximizing consumers, something remarkable happens: the results of the quantities of outputs of goods and services demonstrate both productive and allocative efficiency.

*Productive efficiency* means producing at the lowest cost possible without any waste. The quantity of output supplied is within the production possibilities frontier. In the long-run of a perfectly competitive market, the price in the market is equal to the minimum of the long-run average cost curve. Hence, the goods are being produced and sold at the lowest possible average cost.

*Allocative efficiency* means that among the points on the production possibility frontier, the point that is chosen is socially preferred. It means that businesses supply what people demanded. In a perfectly competitive market, the price is equal to the marginal cost of production. Think about the price that is paid for a good as a measure of the social benefit received for that good, after all, willingness to pay takes what the good is worth to a buyer. Then think about the marginal cost of producing the good as representing not just the cost for the firm, but more broadly as the social cost of producing that good. When perfectly competitive firms follow the rule that profits are maximized by producing at the quantity where the price is equal to marginal cost, thus they are ensuring that the social benefits received from producing a good are in line with the social costs of production.

To explore what is meant by an allocative efficiency, it is useful to walk through an example. First by assuming that the market for wholesale flowers is perfectly competitive, so  $P = MC$ . Now, consider what it would mean if the firms in that market produced a lesser quantity of flowers. At a lesser quantity, marginal costs will not yet have increased as much, so that price will exceed marginal cost; that is,  $P > MC$ .





In that situation, the benefit to society as a whole of producing additional goods, as measured by the willingness of consumers to pay for marginal units of a good, would be higher than the cost of the inputs of labor and physical capital needed to produce the marginal good. In other words, these gains to society as a whole from producing additional marginal units will be greater than the costs.

Conversely, consider what it would mean if, compared to the level of output at the allocatively efficient choice when  $P = MC$ , firms produced a greater quantity of flowers. At a greater quantity, marginal costs of production will have increased so that  $P < MC$ . In that case, the marginal costs of producing additional flowers are greater than the benefit to society as measured by what people are willing to pay. For society as a whole, since the costs are outstripping the benefits, it will make sense to produce a lower quantity of such goods.

When perfectly competitive firms maximize their profits by producing the quantity where  $P = MC$ , they also assure that the benefits to consumers of what they are buying, as measured by the price they are willing to pay, is equal to the costs to society of producing the marginal units, as measured by the marginal costs the firm must pay—and thus that allocative efficiency holds.

### **Impact of Efficiency in Perfectly Competitive Markets**

The statements that a perfectly competitive market, in the long run, will feature both productive and allocative efficiency do need to be taken with a few grains of salt. Remember, economists are using the concept of “efficiency” in a particular and specific sense, not as a synonym for “desirable in every way.” For one thing, consumers’ ability to pay reflects the income distribution in a particular society. Thus, a homeless person may have no ability to pay for housing because they have insufficient income.



Perfect competition, in the long run, is a hypothetical benchmark. For market structures such as monopoly, monopolistic competition, and oligopoly, which are more frequently observed in the real world than perfect competition, firms will not always produce at the minimum of average cost, nor will they always set price equal to marginal cost. Thus, these other competitive situations will not produce productive and allocative efficiency.

Real-world markets include many issues that are assumed away in the model of perfect competition, including pollution, inventions of new technology, poverty which may make some people unable to pay for basic necessities of life, government programs like national defense or education, discrimination in labor markets, and buyers and sellers who must deal with imperfect and unclear information. However, the theoretical efficiency of perfect competition does provide a useful benchmark for comparing the issues that arise from these real-world problems.



## ACTIVITIES

### **Activity: Let Me Think**

Directions: Read and answer the questions below. Write your answer in the box.

1. Productive efficiency and allocative efficiency are two concepts achieved in the long run in a perfectly competitive market. In fact, these two types of efficiency are the reason we call it a perfectly competitive market. How would you use the concepts of productive efficiency and allocative efficiency to analyze other market structures?

2. Explain how the profit-maximizing rule of  $P=MC$  leads a perfectly competitive market to be allocatively efficient.





## WRAP-UP

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

1. What is productive efficiency? allocative efficiency?
2. What is the impact of the perfectly competitive markets on society?



## VALUING

Reflect on this!

*"Efficiency is doing better what is already being done."*

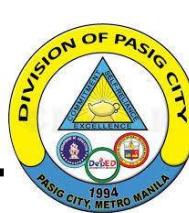
— Peter Drucker



## POSTTEST

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

- \_\_\_\_\_ 1. Allocative efficiency means when the mix of goods being produced represents the mix that society most desires.
- \_\_\_\_\_ 2. Productive efficiency given the available inputs and technology, it's impossible to produce more of one good without decreasing the quantity of another good that's produced.
- \_\_\_\_\_ 3. Perfect competition creates equality of well-being for the citizens of a country.
- \_\_\_\_\_ 4. Perfect competition guarantees that marginal cost will be maximized.
- \_\_\_\_\_ 5. The marginal cost of producing goods is exactly reflected in the prices charged for goods.





# KEY TO CORRECTION

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

## References

Banton, Caroline. "The Definition of Efficiency." Investopedia. February 06, 2020. Accessed August 24, 2020.  
<https://www.investopedia.com/terms/e/efficiency.asp>.

Course Hero, Inc. "Efficiency of Perfect Competition." Course Hero. Accessed August 24, 2020. <https://www.coursehero.com/sg/microeconomics/efficiency-of-perfect-competition/>.

"Efficiency in Perfectly Competitive Markets (article)." Khan Academy. Accessed August 24, 2020. <https://www.khanacademy.org/economics-finance-domain/microeconomics/perfect-competition-topic/perfect-competition/a/efficiency-in-perfectly-competitive-markets-cnx>.

Kenton, Will. "Marginal Benefit." Investopedia. August 22, 2020. Accessed August 24, 2020. <https://www.investopedia.com/terms/m/marginalbenefit.asp#:~:text=A marginal benefit is a,an additional good or service.&text=The marginal benefit for a,the good or service increases.>

Learning, Lumen. "Microeconomics." Lumen. Accessed August 24, 2020.  
<https://courses.lumenlearning.com/wmopen-microeconomics/chapter/efficiency-in-perfectly-competitive-markets/>.

Tuovila, Alicia. "Marginal Cost of Production Definition." Investopedia. August 08, 2020. Accessed August 24, 2020.  
<https://www.investopedia.com/terms/m/marginalcostofproduction.asp>.

