

Applied Economics

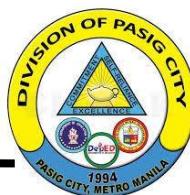
SENIOR
HIGH
SCHOOL

Manufacturing Industry

Self-Learning
Module

4

Quarter 4



Applied Economics
Quarter 4 – Self-Learning Module 4: Manufacturing Industry
First Edition, 2020

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Published by the Department of Education - Schools Division of Pasig City

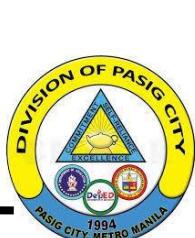
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Printed in the Philippines by Department of Education – Schools Division of Pasig City



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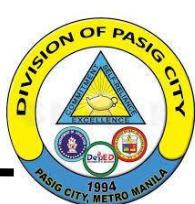
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Introductory Message

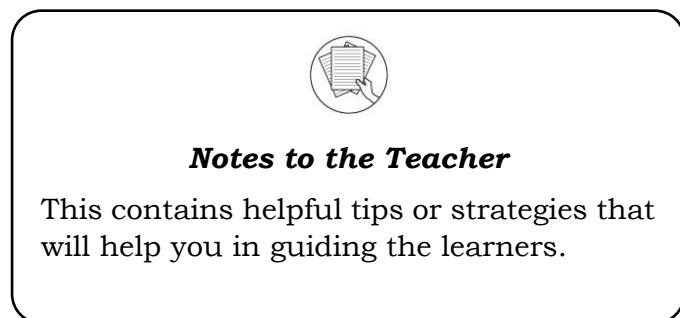
For the facilitator:

Welcome to the Senior High School – Applied Economics Self Learning Module on Manufacturing Industry!

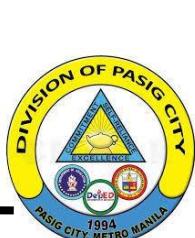
This Self-Learning Module was collaboratively designed, developed and reviewed by educators from the Schools Division Office of Pasig City headed by its Officer-in-Charge Schools Division Superintendent, Ma. Evalou Concepcion A. Agustin, in partnership with the City Government of Pasig through its mayor, 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 Manufacturing Industry!

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:

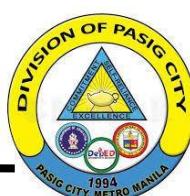
1. define manufacturing business;
2. understand the importance of manufacturing industry on the economy; and
3. apply business principles, tools, and techniques in the manufacturing industry.



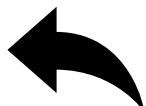
PRETEST

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

1. It is the definition of a manufacturing business.
 - A. The manufacturing business is any business that uses components, parts, or raw materials to make a finished good.
 - B. The manufacturing business is the business which transforms inputs into outputs through the use of tools, human labor, machinery, and chemical processing.
 - C. Manufacturing business includes the process of turning raw materials into finished goods.
 - D. All of the above
2. Below are the examples of a manufacturing business, EXCEPT.
 - A. Machinery and Equipment
 - B. Rubber and Plastic Products
 - C. Wearing Apparel
 - D. Medical Clinic
3. It refers to the cost advantage experienced by a firm when it increases its level of output.
 - A. Cost Efficiencies
 - B. Economies of Scale
 - C. Budget Constraints
 - D. Production Costs



4. These are the effects of economies of scales on the production costs, EXCEPT:
- A. It reduces the per-unit fixed cost.
 - B. It reduces the per unit variable cost.
 - C. As a result of increased production, the fixed cost gets spread over more output than before.
 - D. None of the above
5. According to PSA, the economy dropped by 16.5% in the second quarter of 2020. What was the performance of the manufacturing industry?
- A. Decreased by 21.3%
 - B. Decreased by 33.5%
 - C. Increased by 1.6%
 - D. Increased by 26.5%



RECAP

Directions: Enumerate and discuss Porter's Five Forces.

1. _____.
2. _____.
3. _____.
4. _____.
5. _____.





LESSON

Manufacturing Business

A *manufacturing business* is any business that uses components, parts, or raw materials to make a finished good. These finished goods can be sold directly to consumers or other manufacturing businesses for making a different product. Manufacturing businesses in today's world are normally comprised of machines, robots, computers, and humans that all work in a specific manner to create a product (Hill, 2020).

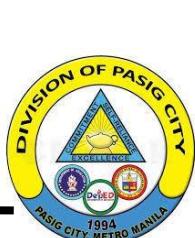
Large-scale manufacturing allows for the mass production of goods using assembly line processes and advanced technologies as core assets. Efficient manufacturing techniques enable manufacturers to take advantage of economies of scale, producing more units at a lower cost.

Economies of Scale refer to the cost advantage experienced by a firm when it increases its level of output. The advantage arises due to the inverse relationship between the “per-unit fixed cost” and “quantity produced”. The greater quantity of the output produced, the lower the per-unit fixed cost. Economies of scale would also result in a fall in the average variable costs (average non-fixed costs) as output increases. This is brought about by operational efficiencies as a result of an increase in the scale of production.

Economies of scale can be implemented by a firm at any stage of the production process. In this case, production refers to the economic concept of manufacture and involves all activities related to a commodity. Thus, a business can decide to implement economies of scale in its marketing division by hiring a large number of marketing professionals. A business can also adopt the same in its input sourcing division by moving from human labor to machine labor.

These are the effects of economies of scale on production costs:

1. It reduces the per-unit fixed cost. As a result of the increased production, the fixed cost gets spread over more output than before.
2. It reduces per-unit variable costs. This occurs as the expanded scale of production increases the efficiency of the production process.



Manufacturing Industry in the Philippines

According to the Board of Investment, the Philippine manufacturing industry remains to be the most important sector for long-term productive employment, value-added generation, and innovation. It has the highest multiplier effect on the economy compared to other sectors. Manufacturing is called the engine of the economy. Many services exist because of manufacturing, hence many service jobs will disappear if manufacturing disappears.

Manufacturing creates more quality and gainful employment, as it has extensive linkages not only among its sub-sectors but also with other industries, not to mention that it can further make the services and logistics sectors more active. Increasing manufacturing activities also have spillover effects of inducing additional demand from the agriculture and resource-based industries.

The latest Annual Survey of Philippine Business and Industry (ASPBI) showed a total of 24,200 manufacturing establishments in 2017. This represents a 13.6% decrease from the 28,003 manufacturing establishments recorded in 2016.

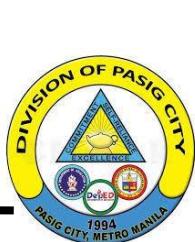
Manufacturing Establishments in the Philippines 2016 and 2017

Indicators	2017	2016	Growth Rate (%)
Number of Establishments	24,200	28,003	(13.6)
Total Employment	1,278,392	1,277,400	0.1
Employment per Establishment	53	46	15.2
Compensation (<i>in thousand PhP</i>)	370,724,558	353,565,384	4.9
Average Annual Compensation	294,325	281,469	4.6
Value of Output (<i>in thousand PhP</i>)	5,282,360,506	4,847,244,843	9.0
Intermediate Expense (<i>in thousand PhP</i>)	3,467,663,175	3,178,708,650	9.1
Income per Peso Expense	1.16	1.14	1.8
Value Added (<i>in thousand PhP</i>)	1,429,227,807	1,310,319,949	9.1
Labor Productivity	1,117,988	1,025,771	9.0

() – negative value

Source: PSA

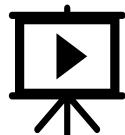
Among industry groups, the manufacture of other food products accounts for 7,880 establishments or 32.6% of the total. Manufacture of beverages followed by 2,407 (9.9%) establishments. Printing and service activities related to printing ranked third with 1,581 (6.5%) establishments. The total employment generated by manufacturing establishments reached 1.3 million in 2017.



In the recent data about the Philippine economy, the Gross Domestic Product (GDP) growth rate dropped by 16.5 percent in the second quarter of 2020.

The main contributors to the decline were:

1. Manufacturing with -21.3%;
2. Construction with 33.5%;
3. Transportation and Storage with -59.2 percent%.



ACTIVITIES

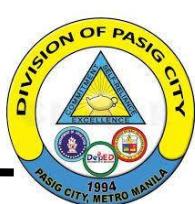
Activity 1: Name It!

Directions: Name at least five (5) manufacturing businesses that operate in your area or within Metro Manila.

1. _____
2. _____
3. _____
4. _____
5. _____

Activity 2: Business Tool

Directions: From the list above, choose one (1) manufacturing business and identify its business environment and competitiveness using any of the business tools (Environmental Scanning, SWOT Analysis, or Porter's Five Forces Model). Use the space below or separate sheets for your answer.





WRAP-UP

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

1. What is manufacturing business?
2. What is the importance of the manufacturing industry on the economy?



VALUING

Reflect on this!

"No matter how great the talent or efforts, some things just take time. You can't produce a baby in one month by getting nine women pregnant."

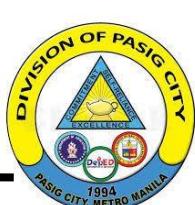
- Warren Buffett

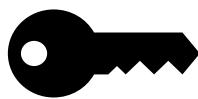


POSTTEST

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

- _____ 1. A manufacturing business is any business that uses components, parts, or raw materials to make a finished good.
- _____ 2. There is a decrease of 3,803 manufacturing establishing in 2017.
- _____ 3. Economies of scale can be implemented by a firm at any stage of the production process.
- _____ 4. Manufacturing is called the engine of the economy.
- _____ 5. Manufacturing industry has been improved in the second quarter of 2020.





KEY TO CORRECTION

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

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