



LEARNING MODULE TLE-ICT G7-8 Q1

Environment and Market in Computer Systems Servicing





NOTICE TO THE SCHOOLS

This learning module (LM) was developed by the Private Education Assistance Committee under the GASTPE Program of the Department of Education. The learning modules were written by the PEAC Junior High School (JHS) Trainers and were used as exemplars either as a sample for presentation or for workshop purposes in the JHS In-Service Training (INSET) program for teachers in private schools.

The LM is designed for online learning and can also be used for blended learning and remote learning modalities. The year indicated on the cover of this LM refers to the year when the LM was used as an exemplar in the JHS INSET and the year it was written or revised. For instance, 2017 means the LM was written in SY 2016-2017 and was used in the 2017 Summer JHS INSET. The quarter indicated on the cover refers to the quarter of the current curriculum guide at the time the LM was written. The most recently revised LMs were in 2018 and 2019.

The LM is also designed such that it encourages independent and self-regulated learning among the students and develops their 21st century skills. It is written in such a way that the teacher is communicating directly to the learner. Participants in the JHS INSET are trained how to unpack the standards and competencies from the K-12 curriculum guides to identify desired results and design standards-based assessment and instruction. Hence, the teachers are trained how to write their own standards-based learning plan.

The parts or stages of this LM include Explore, Firm Up, Deepen and Transfer. It is possible that some links or online resources in some parts of this LM may no longer be available, thus, teachers are urged to provide alternative learning resources or reading materials they deem fit for their students which are aligned with the standards and competencies. Teachers are encouraged to write their own standards-based learning plan or learning module with respect to attainment of their school's vision and mission.

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TECHNOLOGY AND LIVELIHOOD EDUCATION (TLE) – INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) GRADE 7/8

Module 1: Environment and Market in Computer Systems Servicing

CONTENT STANDARDS:

The learners demonstrate an understanding of the concepts of environment and market and how they relate to the field of computer systems servicing, particularly in one's town/ municipality.

PERFORMANCE STANDARDS:

The learners shall be able to create a business vicinity map reflective of the potential computer systems servicing market in the locality/town.

TRANSFER GOAL:

Students on their own and in the long run will be able to create an online business vicinity map to identify business opportunities in a given locality.

INTRODUCTION AND FOCUS QUESTION(S):

Is it possible to setup a computer systems servicing center in your locality?

To know the answer to this question, you need to know more about the present prevailing local conditions. You need to be familiar with the existing opportunities, as well as constraints present in your targeted locality.

The use of available technology can also help you in this endeavor. There are applications and online tools available that help you better understand how you can setup a computer systems servicing center in your area.

In this module, you will find out...

- Which company/ies belonging to the same industry offer a similar product or service in the locality?
- What are the four different computer systems services available in the market?
- What are the steps used in coming up with a business vicinity map?
- What available products and services in the locality are needed in developing the business vicinity map?
- How can one make a draft layout plan of a business vicinity map?
- How can one create an online business vicinity map using identified apps/software/website?



LESSON AND COVERAGE:

In this module, you will examine the question when you take the lessons in:

Lesson 1 – Environment and Market

In this lesson, you will learn the following:

Lesson 1: ENVIRONMENT AND MARKET	 Identify a company in the same industry which offers a similar product or service in the locality.
	 Identify four different computer systems services (i.e. maintaining computer systems and networks, diagnosing and troubleshooting computer systems, installing computer systems and networks and configuring computer systems and networks) available in the market.
	 Describe and show an example of a business vicinity map.
	 Identify the available products and services in the locality needed in developing the business vicinity map.
	 Explain orally the steps in coming up with a business vicinity map.
	 Draft a layout plan of a business vicinity map.
	 Identify apps/software/website used in creating an online business vicinity map.
	 Use apps /software /website in creating an online business vicinity map to enhance business productivity.



MODULE MAP:

Here is a simple map of the above lesson you will cover:



EXPECTED SKILLS:

To do well in this module, you need to remember and do the following:

- 1. Conduct online search about the different important terms used in the lesson.
- 2. Make a Frayer Model diagram about Computer Systems Services.
- 3. Utilize Google maps to search for different places and location
- 4. Fill-up a Decision Tree to document / record the information gotten from the Google Maps search
- 5. Categorize the different CSS companies based on the products and services offered using the Code Breaker Chart
- 6. Familiarize oneself with an online vicinity map using the available search engine
- 7. Analyze the given videos in order to understand how to make an online vicinity map
- 8. Make use of a graphic organizer to record the identified steps on how to make an online vicinity map
- 9. Fill up the Map App table by reviewing the indicated characteristics and indicators of an online business vicinity map
- 10. Analyze the given life stories in order to get meaningful insights based from other people's experience in setting up a computer systems servicing company



- 11. Make use of online tools and applications to know more about a certain place and record one's search details in an App Listing table
- 12. Analyze the given case scenarios in order to see common ideas among the reasons presented and come up with one's generalization
- 13. Practice making an online vicinity map using the available online tools and applications



LESSON 1: Environment and Market

PRE-ASSESSMENT:

Let's find out how much you already know about this module. Encircle the letter that you think best answers to the question. Please answer all items. After taking this short test, you will see your score. Take note of the items that you were not able to correctly answer and look for the right answer as you go through this module.

[A] 1. If you are to establish a shop offering computer systems servicing, which of the following would best describe your market?

- People who might be interested to avail of computer systems servicing a. Building or structure where my shop will be located
- b. Other shops who are also offering computer systems servicing
- c. Other shops offering computer systems servicing in the same area
- [A] 2. If you are to establish a shop offering computer systems servicing, which of the following would best describe who your competitors would be?
 - a. People who might be interested to avail of computer systems servicing
 - b. Building or structure where my shop will be located
 - c. Other shops who are also offering computer systems servicing
 - d. Other shops offering computer systems servicing in the same area
- **[A]** 3. If you are to establish a shop offering computer systems servicing, which of the following should be included in your services?
 - a. Training computer technicians
 - b. Configuring the Assigned IP Address to Clients and Servers
 - c. Validating whether software is licensed or illegal
 - d. Provide cable internet service
- [A] 4. After connecting basic peripherals, Joseph then installed operating system on John's computer. Which of the following common services of CSS business is he doing?
 - a. Maintaining Computer Systems and Networks
 - b. Diagnosing and Troubleshooting Computer Systems
 - c. Installing Computer Systems and Networks
 - d. Configuring Computer Systems and Networks
- **[A]** 5. Which of the following would be the best reason why you would need a business vicinity map?
 - a. To better promote my business
 - b. To have an aerial view of my community
 - c. To have a better idea of my business environment



- d. To have a general knowledge of my market
- [M] 6. Why is it important to know who your customers are?
 - a. You will be able to create and define an appropriate marketing strategy.
 - b. You will be able to come up with offerings of higher prices.
 - c. You will be able to copy their pricing scheme and the services they are offering.
 - d. You will be able to upgrade your business.
- **[M]** 7. Why is it important to include in your business vicinity map shops or establishments that are similar to yours?
 - a. To be aware of possible competitors in your area.
 - b. To be aware of possible suppliers for your shop.
 - c. To strategically locate your shop near these establishments.
 - d. To strategically locate your shop away from these establishments.
- [M] 8. Juan is a computer shop owner who also layout and print tarpaulins. Who among the following best illustrates direct competitors of Juan?
 - a. Julia, an owner of a business engaged in selling computer parts.
 - b. Pedro, a computer science graduate, who sells computer software and applications online
 - c. Jonna, who works as a programmer of Google.
 - d. Xavier, who has a computer shop nearby Juan's computer shop.
- **[T]** 9. You're the owner of a Computer Systems Servicing (CSS) center who wants to establish a branch in another village. Which among the following should you be doing first?
 - a. Use Facebook to share advertisements via social media.
 - b. Use Streetview to know how you will design your building to "fit in."
 - c. Use a "buy and sell" website to know how much construction materials cost in the area.
 - d. Use Google Maps to find out how many other CSS centers in the area
- [T] 10. A CSS business owner who wants to expand in your area and hires you to make an business vicinity map that needs to be up as soon as possible. Aside from the landmarks, which features of this map needs to be prioritized?
 - a. traffic information
 - b. nearby establishments
 - c. land relief
 - d. mouse-over pop-ups



EXPLORE

Let's begin the module by performing the activity below in order to check your prior knowledge about the Environment and Market:

Activity No. 1 : My SPECs (Strong PECs)

In previous lessons we discussed personal entrepreneurial competencies (PECs). Can you still remember the particular PECs that you already have? How about those that you have yet to develop? Fill up the table below.

What I already have	What I still need to improve

Remember!

To maximize your opportunities in your chosen field, it is important to know of your PECs: Tap the strengths that you already have, and work on your areas for improvement.

You also need to identify the business opportunities in your locality. For example, what are the business opportunities in your barangay? With the aid of digital tools how will you identify them?



Activity No. 2: Let's Find Out

Let us find out what you know about Environment and Market of Computer Systems Servicing by writing your initial answer on the top-most row of the table below. Do not write anything yet on the last two rows of this table. These will be filled out later on.

Answer the question:

How are business opportunities in Computer Systems Servicing determined?

Initial Answer:	
Revised Answer:	
Final Answer:	

IRF SHEET

Explain your answer briefly:

End of EXPLORE:

You gave your initial ideas on by answering the 'I' part of the IRF Worksheet.

Let's find out how others would answer the above and compare their ideas to your own. As you compare, you will find out if your ideas are in line with the standard. You will also learn other concepts which will help you complete a required project found at the end. This project is about making a business vicinity map.

We will continue by doing the next activity.



FIRM-UP

Your goal in this section is to learn and understand key concepts about Environment and market. The competencies that you should be able to accomplish are listed below. Monitor your progress in this module using this checklist of competencies.

	CHECKLIST OF COMPETENCIES						
	Competencies	l can do this completely by myself	l can do this with some help.	l cannot do this at all.			
,	Identify a company in the same industry which offers a similar product or service in the locality.						
	Identify four (4) different computer systems services available in the market.						
	Describe and show an example of a business vicinity map.						
	Identify the available products and services in the locality needed in developing the business vicinity map.						
	Explain orally the steps in coming up with a Business Vicinity Map.						
	Draft a layout plan of a business vicinity map.						
	Identify apps/software/website used in creating an online business vicinity map.						
	Use apps /software /website in creating an online business vicinity map to enhance business productivity.						



Activity No. 3 : Online Search - Computer Systems Servicing

What is Computer Systems Servicing? Do you know the meaning of the terms *market, product, services, and competitors*?

Go to the following sites to know more about Computer Systems Servicing as well as the other terms mentioned above.

- 1. https://en.wikipedia.org
- 2. http://www.businessinsider.com

3. http://www.businessdictionary.com

You may also look up other references that you can find online.

Process Questions:

- 1. What do you mean by the terms: market, product, and service?
- 2. What do you mean by competitors?
- 3. How is Computer Systems Servicing (CSS) provided to prospective customers?
- 4. How are specific products and services related to CSS?

Together with your assigned group mates, use the concept word *Computer Systems Servicing* as basis in writing your answers for the following:

- a. In the *first* box, write the definition. Your answer should be clear and can be easily understood.
- b. In the *second* box, list the characteristics of our concept word after you and your group mates have done brainstorming.
- c. In the *third* box, list down examples of Computer Systems Servicing which may include products and services of such.
- d. In the fourth box, write down or enumerate non-examples of the concept word.





Now that we are more familiar with some key concepts about the environment and market, and we know more about CSS, we are one-step closer to setting up a computer systems servicing center. First, we must find out more about possible competitors, or those existing establishments, which may already offer CSS-related products and services.

We can use available technology to help us in this task. At this point, let us take a closer look at Google Maps. (You may skip this part if you already know how to use Google Maps).

Using Google Maps: <u>https://www.google.com/maps</u>

To open Google Maps, go to the link above, or type maps.google.com to launch the site. Simply type the name of the place that you want to see in the search bar, and Google Maps will display it. (*See next figure*).



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You can either use the suggestions given by Google Maps, or just zoom in by double-clicking.



Once you have located what you are looking for, you can right-click on the location and select Search Nearby, and just type in what kind of establishments you are looking for in the search bar.





You may even type the actual name of an establishment and let Google Maps show where the different branches near the area you selected.

Google Maps can also give you information about the traffic in a specific area. Just click on Directions.



Activity No. 4 : Company Survey

- 1. The students will count off from 1 to 6 which will be the basis of their groupings. After joining their respective groups, they should use the *Decision Tree activity* as basis in determining and identifying which among the ten (10) given choices/options are Computer Systems Servicing (CSS) companies.
 - Note: The teacher will prepare 10 or more companies that either offer computer products and services or nothing at all. These companies should include listings of their company profile and may be placed in illustration boards or folders.



2. Members of the groups will roam and check on the different companies situated around the room. Each group will take turns in doing this to answer the chart below:

Specific instructions:

- a. In the first row, write the title.
- b. In the second row, list the companies that offer computer products and services. These were determined after you and your group mates have done brainstorming.
- c. In the third row/box, list down products and services of the CSS companies identified.



Process Questions:

- 1. How many establishments or companies did you find that offer products and services related to CSS?
- 2. Based on your survey, what are the CSS-related services that are usually offered by these companies?
- 3. Are there establishments that offer all the CSS-related services that are available in your area? Are there companies that offer CSS-related services which are not offered by other establishments?
- 4. Which company (or companies) stands out in terms of services offered?



You have now identified your possible competitors in the market and have started making and analyzing each in terms of services offered. This time, you will compare these Computer Systems Servicing companies by accomplishing the next activity.

Activity No. 5 : Code Breaker

Rank the CSS companies (*see chart in the previous activity*) based on the products and services that they offer. Then fill up the Code Breaker chart below:

CSS Companies (Competitors) *specify also their website URL	Published Content *include summary & type of content creation used (blog, case studies, social media, podcast, webinar, etc.)	Social Media Integration
1.		
2.		
3.		

Having an idea of the CSS-related companies in the locality, as well as the products and services available in the market, you now have a better understanding on how you can setup a CSS-related business in your community.

We will now look into a tool that can further help you get a clearer picture of your market environment. It is called a business vicinity map.

Activity No. 6: Online Search – Business Vicinity Map

The following is an example of a business vicinity map showing the location of a residential condominium and the educational institutions.





Source: http://manilacondosneartrainstations.weebly.com/uploads/3/8/1/9/38197631/925923324.jpg?842

Using a search engine to look for answers from the web, answer the following questions about business vicinity maps.

- 1. What is the purpose of a business vicinity map?
- 2. How does it differ from an ordinary map?
- 3. What pieces of information should be found in a business vicinity map?
- 4. If you were to re-draw the sample map given above, what other details would you include and why?

This time, you yourself will be drafting a business vicinity map in the next activity.

Activity No. 7: Making a Business Vicinity Map Using Digital Tools

Watch this video on how to create a layout plan for a business vicinity map: <u>https://www.youtube.com/watch?reload=9&v=DIUB_5pUF6E&feature=youtu.be</u>

Focus on the steps shown on the video and afterwards, draft a layout plan for a business vicinity map showing the location of computer related businesses in your locality. Use Paint or any graphics editor or drawing tool software in creating the draft.

You have just made a layout draft of a business vicinity map using digital tools. At this point, you are now ready to look at other digital tools.

Activity No. 8 : Video Analysis

Watch the videos in the links given below. Focus on the steps shown in both videos.



- https://youtu.be/I7UU4utCqXs
- https://www.youtube.com/watch?v=o02olYXECak

Process Questions:

- 1. What good features have you seen in each software, which you can use in enhancing your online vicinity map?
- 2. Which of the two software do you think you can use in creating your own online vicinity map? Explain your answer.

After looking at how the two software applications that can be used in making maps, familiarize yourself with the tools and learn to operate the software. Choose the software you would like to use in making maps.

Summarize the process of creating a map with the software you chose. Fill-in the boxes with the steps involved in the said process.



You have just enumerated the sequence of steps in creating a map using computer software. This will be useful later on as you accomplish your performance task for this module.

In the meantime, you will be exploring more apps and digital tools that you can use for making vicinity maps. As they say, "The more the merrier!"

It is important however, that you know the appropriate software or online tool to use. The next activity will help you do just that.



Activity No. 9 : Map App Table

In the table below, the characteristics and indicators of an online business vicinity map software are listed. For each of the characteristics and indicators, put a check mark (\checkmark) on the corresponding cell if the software listed matches the indicator.

CHARACTERIST ICS	INDICATORS	Google Map	Maptive	Maptitude	MS	Mind View	PowerPoint	Scribble
Title	Software can display title and can prompt the reader on the "what, where, when" about the map							
Orientation	Has a compass or some other symbol to help orient the user							
Scale	Can make judgments about distance. Graphic scales are available especially in dealing with computer images or printing images.							
Legend	Can visualize reality map							
Grid	Coordinate system is available							
Directions	The software can give directions to the user to go to specific places.							
Availability	Can be used either online / offline							
	Can be used online only							
	Can be used offline only							
Accessibility	ccessibility Compatible in either MAC or PC's							
	Compatible with PC only							
	Compatible with Mac only							



Activity No. 10 : Scaffold 1- Linear Flowcharting

Before you proceed, recall the sequence of steps that you formulated in Activity No. 8. Re-write those steps, and make modifications, if needed.



Create a map showing your school and surrounding establishments. Apply the steps that you enumerated above. You may use Maptive, Scribble Map, or any software application available.

Activity No. 11 : Scaffold 2 – Hands-On Activity 1 - Barangay Map

Your Barangay Chairman wants to know the establishments found in your locality and wants it to be posted online. He asks you to create a online map, which should show correct labels of establishments found in the barangay.

The online vicinity map can be displayed in either MAC or PC and in at least one browser. It should have clear map features, have accurate labels, have an attractive design, and can be opened by an appropriate application.

Process Questions:

- 1. Did you completely apply the sequence of steps in making a map? Explain your answer.
- 2. What difficulties have you encountered in making an online vicinity map? How did you address these difficulties?
- 3. What other features does your map need?
- 4. How can you put these features to enhance your vicinity map?
- 5. How can you further enhance your vicinity map?



Activity No. 12: Let's Check

Review your initial answer/s based on what you have learned. Write your revised answer on the second box. Do not write anything yet on the last box of this table. This will be filled-in later.

Answer the question:

How are business opportunities in Computer Systems Servicing determined?

IRF SHEET
Initial Answer:
Revised Answer:
Final Answer:

End of FIRM UP:

In this section, the discussion was about good business idea, customer, markets, and software.

Go back to the previous section and compare your initial ideas with the discussion. How much of your initial ideas were found in the discussion? Which ideas are different and will need revision? What new learning goal should you now try to achieve?

Now that you know the important ideas about this topic, let's go deeper by moving on to the next section.



Your goal in this section is to take a closer look at some aspects of environment and market.

To start this section, let us learn from the experiences and insights of two people who were noted for their success in their particular businesses.



Activity No. 13: Learning from (their) Experience

Directions: Read the two articles below and answer the questions that follow.

First Expert : Rene Sanning (as interviewed by Steve Freeman) https://www.youtube.com/watch?v=GgldAhMWWfY

Rene Sanning had just graduated from design school and needed a location to start her design and dress boutique. Her tastes were eclectic and funky, so she needed to be sure the location was perfect. Greenwich Village NY., was an option but moved instead to the Little Five Points area of Atlanta.

Within two months of opening, she already had several newspapers and one magazine interviews, in one case, was featured in a full-page article. This put her on the map, got her recognized, and began to build a client base.

Building a small business has many pitfalls and finding the right location is very key. I've interviewed many small business owners and most say that top of the list is to find a good location. I'm sure you have seen businesses located off the beaten path and you wondered what on earth drew them to that location, unfortunately it is usually cheap rent.

Rene was fortunate in that she knew how important location was. She comes from a family that owned shoe stores in Louisville KY, and Cincinnati OH, and was well versed in small business. You might say *"well, she was just lucky because of the publicity she got"*. Maybe that's true. Who was it that said, *"Luck is when preparation meets opportunity"*?

A good location will include the following:

- 1. Other stores that provide similar products or services.
 - Rene mentioned to me that her business would have not worked if she set it up in an area of grocery stores. " I had to be where they come to shop for clothes", she said.
- Make sure the property is zoned for your purposes.
 I met one owner that signed the lease only to find he could not use sell his full product line and was tied into a 3 years lease.

Once you find the location have an improvement plan drawn up and get bids for the work.

It is very expensive to develop the type of space you may need for your business. Without written bids you will chew through much of your reserve funds before the doors are ever open.

One final reason to get a good location: When the need arose and Rene needed to close and consolidate her other stores, this was the



location she came home to. This is where her best customer base was located.

Second Expert : Tom Egelhoff, motivational speaker, and sales trainer http://www.smalltownmarketing.com/ten_things.html

What are the most important things to consider when selecting a good location?

- Visibility Do you need a visible storefront like a shoe store or dry cleaner?
- Traffic Is it a high or low traffic area?
- Is there adequate parking for your customers?
- Is your target market there?
- Condition of the property Will it need any repairs now or in the near future?
- Is the location in a growing or decaying part of town?
- Can you expand if necessary?
- How healthy is the local business climate?
- Are there other "draws" nearby that will help attract your customers? Movies? Food Stores?
- Level of crime in the area?
- Zoning restrictions?
- Are there compatible businesses nearby? For example, a video store would benefit from a pizza shop and vice versa.
- Rent costs

Last but not least,

How close are your competitors?

- How do they compare in appearance to your business?
- Do they look more or less prosperous?

Before beginning the search for that perfect location, create an outline of what your current and future needs will be for the property. Associations and industry magazines can help you determine the amounts of traffic you will need.

Process Questions:

- 1. Does the presence of other stores or establishments affect your particular store? Justify your answer based on the examples above.
- 2. If you were going to put up some computer systems servicing shop near your home, would it be a good idea? Justify your answer.

Activity No. 14: Think-Pair-Share

Discuss your answers to Process Questions with a partner. Afterwards, present your answers to the whole class using PowerPoint or any presenter program.

Go back to the important considerations given by Tom Egelhoff in the second article. It may be possible to answer these questions with the help of computer applications or software.



Activity No. 15 : Apps Listing

Aside from Google Maps, there are applications and online tools that can help you know more about a certain place if you are to put up a business there, like a computer system servicing shop. Let us go over these apps before we proceed with the activity:

Google Street View https://mapstreetview.com

You can either go to URL indicated above or launch this from Google Maps. From Google Maps, simply drag the yellow human icon at the bottom right to the point in the map that you want to see.



Facebook Search

If you have a Facebook account, you can also use its Search feature to look for business establishments. For example, just type *computer shops* in the search bar, Facebook will display pages, places, or posts related to computer shops.



Just check the options in the Filter Results to refine your search.



Now that you are acquainted with some apps that will help you know more about the place where to put your business, let us continue by doing the next activity.

Fill up the table in <u>https://goo.gl/b76YFL</u>. The entries for column 1 are taken from Tom Egelhoff's article. You may add as many entries (or rows) as necessary, but make sure that you do not add duplicate entries.

APPS LISTING				
Environmental Considerations	Computer Program/ Application or Website			
1. Are there compatible business nearby?	Google Maps			
2. How close are your competitors?	Google Maps			
3. How do they compare in appearance to your business?	Google Streetview, Facebook			

You may search the web using Google or any search engine to look for additional apps or sites.

Activity No. 16 : Guided Generalization

At this point, go back to the question given at the beginning of this unit: How are the business opportunities in Computer Systems Servicing determined?

Answer this question after going through each of the following situations:

Case No. 1 – Services Offered

Vickus is planning to open a computer repair shop in their locality. Although he has been working and playing around with computers for the past 8 years, he is still not confident in running a computer business. He then posted on a site his concerns and asked some tips to anyone on how to get start a computer repair shop business. This is what he posted,

Vickus

So, I've been working and playing around with computers for the past 8 years and I've finally decided I'd like to open a computer repair shop, I'm pretty confident that I can diagnose and fix most if not all problems when it comes to computers. I can even make them run better than new as long as the hardware isn't damaged, so I'd like any advice you guys can give on getting started out. I don't have any experience with legal businesses, but I can manage money well enough and I'm a quick learner.

Here are the comments he received:



Davidgilinsky

Well as long as you have that kind of background and determination go for it, but you need to make sure that the place that you will be residing your business is a good spot.

Uneventful

Know the kind of computer related services the people from your community needs.

PCGeek

Check on how much other computer repair shop charged, once you know how much they charge do not make your fee lesser it will only make it worse for you both but make your services better instead.

Based on the responses he received above, how are the business opportunities in Computer System Servicing determined?

Case No. 2 – Addressing the Need

After conducting a survey in their community, Ramil found out that almost 38 out of 39 households have at least a computer and laptop. No one from the 39 households knows how to fix a computer when it is malfunctioning or when it is infected with virus. Most of the time, 15 to 20 individuals will go to the neighboring community monthly just to have their computer units be fixed. From what Ramil have learned, he decided to open a computer repair shop to address the needs of their community and at the same time start a small business.

Based on the situation above, how are the business opportunities in Computer System Servicing determined?



Case No. 3 – Feasibility is the Key

Mac would like to start a computer-related business in their community. He searches for sites and read articles online that talks about how to start a computer-related business. The text below is an excerpt from one of the articles he read.

How to Start a Computer Repair Business

The following tips can help you figure out how to start a computer-related business.

1. Determine the Characteristics of Your Ideal Clients.

Before you start your own computer repair business, you need to figure out who you want to serve. Know who your ideal clients are and which characteristics they share. How large are their businesses? Which major business problems do they face? As you start to fine-tune your idea of the ideal computer repair business client also think about whether you are serving a niche and what your specialty is. Are your clients all in a specific industry or do they naturally all use the same specific software or hardware? Having a niche and a specialty can really help you with marketing and sales. You will position yourself to offer solutions that no other technology professionals in your area are offering and thus be even more indispensable to your clients.

Based from the excerpt of an article Mac read, how are the business opportunities in Computer System Servicing determined? Can you see some things in common among them? Carefully study the three cases above carefully and fill up the table found on the next page.

Guided Generalization Table

Based on the responses on what Vickus has asked in Case 1, how are the business opportunities in Computer System Servicing determined?	Based on the situation in Case 2, how are the business opportunities in Computer System Servicing determined?	Based from the excerpt of an article Mac read in Case 3, how are the business opportunities in Computer System Servicing determined?
Answer:	Answer:	Answer:
Supporting Texts:		
Reason:		



Common Ideas in Reasons:

What are the common ideas among the reasons you have given in the different scenarios?

What generalization have you come up with?

After you have experienced analyzing the given scenarios in the previous activity, try to answer another set of situations on your own.

Summative Guided Generalization

Case No. 1 – Know your Market

John would like to start a Computer System Servicing business in their community. However, he is still not confident in running that kind of business, so he searched online and looked for articles that talks about starting a Computer System Servicing business. The following are some important points he read.

- a. **Consider the service that you plan to provide.** Decide whether you will offer general hardware repair and upgrade services, virus removal, data recovery, and other services. In choosing the service that you plan to offer, you need to consider your skills and professional certifications you have acquired.
- b. Research your competition to see how many other Computer System Servicing businesses target the same customer base in your area. Find out their rates, the services that they provide and the certifications that they and their technicians hold. Determine the rate that you will work for, making sure that it is competitive and reasonable for someone with your skill level.
- c. **Research on the needs of the customer in your area.** Find out what customers need in your area; what problems they usually encounter with their computers and the things they would want to be done to their computers like upgrades and installation of software.

Based on what John have read, how are the business opportunities in Computer System Servicing determined?

Case No. 2 – Addressing the Need

Ramil wants to start a Computer System Servicing business in their locality. Before starting the business, he found out that most of the computer owners in their area have problems related to upgrading of the Operating System, fixing computer peripherals, removing of malwares, computer hardware maintenance, and diagnosing and troubleshooting computer system. Only few have problems with installation of computer software and configuring a



network. Based on the survey result, Ramil decided to open a computer repair shop that will address problems usually encountered by the community. Based on the situation above, how are the business opportunities in Computer System Servicing determined?

Case No. 3 – Starting a Business for Dummies

The article below is taken from *https://www.wikihow.com/Start-a-Computer-Businesss*. The page is all about guides in starting a computer business. Read the article and answer the question after.

Part 1 Aligning Your Skills and Goals With the Market

- 1. **Assess your skill set.** It seems reasonable to assume that anyone harboring ideas of starting a computer business already has a deep familiarity with computers and related systems. That said, the particulars of your training and experience, and your willingness to learn more, are vital in determining the type of computer business best suited to your talents.
- 2. **Analyze the local market.** With any small business, you need to carefully consider the local demographics, the identity and needs of your target population, and the particular products and services they are likely to desire. How can you tailor your planned business to meet these conditions?
- 3. **Consider your business options.** Despite changing technology and consumer tastes, there are still opportunities to establish a business based on sales of computers, parts, or accessories; editing and design services; troubleshooting and/or training; and repairs or refurbishments. The key is flexibility and an ability to change along with the technology.
- 2. Set your goals. Are you looking to start a computer business as a side job, or a source of supplementary income? Or are you hoping to build the business into your full-time career? Either way, it is probably best to start small and determine the market and prospects for your business over a period of time.

Based on the article above, how are the business opportunities in Computer System Servicing determined?



Guided Generalization Table.

Case1:	Case2:	Case3:
Answer:	Answer:	Answer:
Supporting Texts:		
Reason:		

Common Ideas in Reasons:

Rubric Scoring Guide:

4 pts.

In addition to Level 3 response, student's answer shows in-depth inference that go beyond class discussion of the Enduring Understanding (EU) and other compelling evidences related to the text.

3 pts.

Explanation shows no major errors or omissions regarding the Enduring Understanding (EU). Justification shows logical reasoning with appropriate text citation.

2 pts.

Explanation contains major errors or omissions regarding the Enduring Understanding (EU). Justification shows logical reasoning, but text citation is not relevant.

1 pt.

Explanation has no major reference to the Enduring Understanding (EU). Justification is either incomplete, missing or lacks support of evidence.

0 pt.

No explanation and justification were found in the answer.

At this point, before the end of this section, you will be making another business vicinity map.

But before doing so, do some self-check regarding the competencies listed below:

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	CHECKLIST OF COMPETENCIES							
	Competencies	Crystal Clear and can do this completely by myself	Partially Clear and able to do this	Not Understo od and not able to do this				
1.	Identify apps / software / websites used in creating online vicinity map							
2.	Use apps / software / websites in creating online vicinity map to enhance business productivity							

Activity No. 17 : Scaffold 3 – Hands-On Activity 2 - Establishing Computer Shop

Mr. Fred Berdiago, a computer shop owner wants to know if it is possible to put up a computer shop in your barangay. You are to show to him a vicinity map of your barangay showing existing computer shops and cybercafés. He would like also to see in your vicinity map pictures of the computer shops and cybercafés, some details about the computer shops and cybercafés and data showing the number of users going there daily. Finally, the map should also work in multiple platforms and browsers since it will be seen by other members of the computer shop company board.

Process Questions:

- 1. How are you going to do this task?
- 2. Compared to the map for the barangay, what new things or innovations where added?
- 3. Try comparing your vicinity map with that of existing maps in the neighboring countries How will you enhance your vicinity map so that it will be at par with those found in the neighboring countries?



Activity No. 18: *Let's Finalize*

Complete the IRF Sheet by writing the *Final Answer* to the Essential Question: *How are business opportunities in Computer Systems Servicing determined?*

IRF SHEET

End of DEEPEN:

In this section, the discussion was about the importance of studying your business location with the aid of online or offline software.

What new realizations do you have about the topic? What new connections have you made for yourself? What helped you make these connections?

Now that you have a deeper understanding of the topic, you are ready to do the

Initial Answer:

Revised Answer:

Final Answer:

tasks in the next section.



Your goal in this section is to apply your learning to real life situations. You will be given a practical task which will demonstrate your understanding.

Please accomplish the self-assessment checklist of the skills you have acquired on the next page.



PERFORMANCE SKILL	ABLE TO DO ALL STEPS BY MYSELF AND WITH MUCH CONFIDENCE	ABLE TO DO MOST STEPS BUT NEED COMMENTS AND FEEDBACK FROM OTHERS	NEED DETAILED STEP-BY-STEP INSTRUCTION
1. I can determine the needs of my vicinity map.			
2. I can choose the appropriate software to help me create my vicinity map.			
3. I can locate my vicinity area using an application software.			
 I can match my data with specific location in the vicinity map. 			
5. I can customize my vicinity map.			

In the next activity, you will be posting the vicinity map in an online site, where you will invite users of the site from ASEAN countries to evaluate your work. These users will be able to post their comments, suggestions and ideas to enhance the vicinity map.

Your understanding of the lesson will be gauged with this performance task

Activity No. 19 : Scaffold 4 – Performance Task

You and two of your friends plan to open a computer shop and service center. With the immediate purpose of identifying possible locations for putting up this business in your city, you decide to create a business vicinity map.

Eventually, this can be viewed by netizens online. You are to create a *Jumpshare* account (jumpshare.com.) and have the online business vicinity map uploaded there, and shared online using social media. Look for users from ASEAN countries and invite them to have a look at your online vicinity map. Have them post their comments, suggestions and ideas to enhance the vicinity map.



To create an online business vicinity map, each of you will play one of the following roles: researcher, map maker, and social media manager.

The online business vicinity map should have clear map features, accurate labels, an attractive design, and is compatible to work in appropriate applications (e.g. platforms, browsers)

Process Question:

- 1. Which aspect in the making of the transfer task did you like most?
- 2. What difficulties did you encounter in making the transfer task?
- 3. Are you satisfied with your product? What aspects could you have improved?
- 4. What values did you gain from the activity and how can you apply them in your life?
- 5. How helpful were the suggestions and comments you've received from the users in the other countries?
- 6. What are your learnings and realizations in your task of making the online business vicinity map?

CRITERIA	4	3	2	1
	Exemplary	Satisfactory	Developing	Beginning
Clarity	Features and boundaries are distinguishable.	Features and boundaries are visible.	Features and boundaries are present but cannot be easily seen.	Features and boundaries are missing.
Accuracy	Major landmarks are labeled correctly along with other significant places.	Major landmarks are labeled correctly.	Major landmarks are labeled incorrectly.	No labeling of landmarks are seen.
Attractivenes s	Makes strategic use of graphics and effects to enhance presentation.	Makes good use of graphics to enhance presentation.	Uses graphics but did not enhance the presentation.	Does not use graphics in the presentation.
Compatibility	The online business vicinity map has been tested and shown to work in multiple platforms and browsers.	The online business vicinity map has been tested and shown to work in at least 1 browser and in	The online business vicinity map has been tested and shown to work on either MAC and PCs but problems exist.	The online business vicinity map has not been tested or supports only one browser

Your Performance Task will be evaluated based on the following rubric:



Mac or PC platforms.	on our platform.

*Each group will be given an opportunity to do a self-evaluation using the same rubric



END OF TRANSFER:

You've just learned and understood the concepts of Environment and Market and how they relate to the field of Computer Systems Servicing. You have also completed the performance task in this unit, that is, to make an online business vicinity map that shows you evidence of learning in this unit.

How did you find the performance task? How did the task help you see the real-world use of the topic?

Activity No. 20 : Reflection

Write a short reflection about the real-life lessons and other important insights that you have learned in accomplishing your Performance Task. Use these process questions as your guide:

- 1. How did you find the performance task?
- 2. How did the task help you see the real-world use of our lesson?
- 3. How can young people like yourself have a lifelong involvement in identifying business opportunities in using digital tools?

Be ready to share this to the class.

You have now completed the lesson. Please answer the post assessment questions at the end of this module, before proceeding to the next lesson.



Glossary of Terms used in this Lesson:

- 1. **Buying Behavior** refers to the sum total of a consumer's attitudes, preferences, intentions, and decisions regarding the consumer's behavior in the marketplace when purchasing a product or service.
- 2. Clients refers to people or company who needs computer systems services.
- 3. **Computer drivers-** driver is a computer program that operates or controls a particular type of device that is attached to a computer.
- 4. **Computer system components-** includes all components that are installed inside a computer system like the CPU, main memory, hard disk drives, and expansion cards.
- **5.** *Competitors* Any person or entity which is a rival against another. In business, a company in the same industry or a similar industry which offers a similar product or service.
- 6. *Customer* a person or organization that buys goods or services from a store or business.
- 7. **Customer Service** refers to is the act of taking **care** of the **customer's** needs by providing and delivering professional, helpful, high quality **service** and assistance before, during, and after the **customer's** requirements are met.
- **8.** Environment *it refers to* everything that is around us. It can be living or nonliving things. It includes physical, chemical and other natural forces.
- 9. *Error message* is information displayed when an unexpected condition occurs, usually on a <u>computer</u> or other device.
- 10. *Hardware* -this includes the physical, tangible parts or components of a computer, such as the central processing unit, monitor, keyboard, computer data storage, graphic card, sound card, speakers and motherboard. By contrast, software is instructions that can be stored.
- 11. *Installing computer systems and networks* includes all services that involves the installation and assembly of computer systems and its components, as well as establishing a network. It includes the installation of the computer's operating system.
- 12. *IP conflict* when two computers (or other devices) on a local area network have the same static IP address.



- 13. *Locality* refers to the immediate surrounding where the computer systems services centers are located.
- 14. *Market* A market is a medium that allows buyers and sellers of a specific good or service to interact in order to facilitate an exchange.
- 15. *Marketing* refers to the activities of a company associated with buying and selling a product or service. It includes advertising, selling and delivering products to people.
- 16. *Marketing strategy -* is a long-term, forward-looking approach to planning with the fundamental goal of achieving a sustainable competitive advantage.
- **17.** Online Business Vicinity Map is a map created showing the location of the computer systems services center created by using an online app.
- 18. **Opportunities-** are those chances that are stored up in the coming future and are up to the business to take the maximum advantage.
- 19. Peripheral device- connects to a computer system to add functionality.
- 20. *Quality* refers to the standard of something as measured against other things of a similar kind; the degree of excellence of something.
- 21. **Relationship Marketing** is a strategy designed to foster customer loyalty, interaction and long-term engagement. It is designed to develop strong connections with customers by providing them with information directly suited to their needs and interests and by promoting open communication.
- 22. **Simulation** The act of simulating something first requires that a model be developed; this model represents the key characteristics, behaviors and functions of the selected physical or abstract system or process.
- 23. **Software-** is a general term for the various kinds of programs used to operate computers and related devices.
- 24. **SWOT Analysis** is an analysis tool framework used by organizations to identify its internal strengths and weaknesses, as well as its external opportunities and threats.
- 25. *Vicinity Map* a map that shows the location of your business, and/or illustrates the near area of whatever-it-is you are interested in your town, your neighborhood, the area around ground zero



- 26. *Weaknesses* are generally the set of problems which the business is facing at present or from the time the business was established.
- 27. **Zone** refers to a region or area set off or characterized as different from surrounding or neighboring parts.



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POST-ASSESSMENT:

It's now time to evaluate your learning. Choose the letter of the answer that you think best answers the question. Your score will only appear after you answer all items. If you do well, you may move on to the next module. If your score is not at the expected level, you have to go back and take the module again.

- **[A]** 1. If you are to establish a shop offering computer systems servicing, which of the following would best describe your market?
 - a. People who might be interested to avail of computer systems servicing
 - b. Building or structure where my shop will be located
 - c. Other shops who are also offering computer systems servicing
 - d. Other shops offering computer systems servicing in the same area
- [A] 2. If you are to establish a shop offering computer systems servicing, which of the following would best describe who your competitors would be?
 - a. People who might be interested to avail of computer systems servicing
 - b. Building or structure where my shop will be located
 - c. Other shops who are also offering computer systems servicing
 - d. Other shops offering computer systems servicing in the same area
- **[A]** 3. If you are to establish a shop offering computer systems servicing, which of the following should be included in your services?
 - a. Training computer technicians
 - b. Configuring the Assigned IP Address to Clients and Servers
 - c. Validating whether software is licensed or illegal
 - d. Provide cable internet service
- [A] 4. After connecting basic peripherals, Joseph then installed operating system on John's computer. Which of the following common services of CSS business is he doing?
 - a. Maintaining Computer Systems and Networks
 - b. Diagnosing and Troubleshooting Computer Systems
 - c. Installing Computer Systems and Networks
 - d. Configuring Computer Systems and Networks
- **[A]** 5. Which of the following would be the best reason why you would need a business vicinity map?
 - a. To better promote my business
 - b. To have an aerial view of my community
 - c. To have a better idea of my business environment
 - d. To have a general knowledge of my market



[M] 6. Why is it important to know who your customers are?

- a. You will be able to create and define an appropriate marketing strategy. *
- b. You will be able to come up with offerings of higher prices.
- c. You will be able to copy their pricing scheme and the services they are offering.
- d. You will be able to upgrade your business.
- **[M]** 7. Why is it important to include in your business vicinity map shops or establishments that are similar to yours?
 - a. To be aware of possible competitors in your area.
 - b. To be aware of possible suppliers for your shop.
 - c. To strategically locate your shop near these establishments.
 - d. To strategically locate your shop away from these establishments.
- **[M]** 8. Juan is a computer shop owner who also layout and print tarpaulins. Who among the following best illustrates direct competitors of Juan?
 - a. Julia, an owner of a business engaged in selling computer parts.
 - b. Pedro, a computer science graduate, who sells computer software and applications online
 - c. Jonna, who works as a programmer of Google.
 - d. Xavier, who has a computer shop nearby Juan's computer shop.
- **[T]** 9. You're the owner of a Computer Systems Servicing (CSS) center who wants to establish a branch in another village. Which among the following should you be doing first?
 - a. Use Facebook to share advertisements via social media.
 - b. Use Streetview to know how you will design your building to "fit in."
 - c. Use a "buy and sell" website to know how much construction materials cost in the area.
 - d. Use Google Maps to find out how many other CSS centers in the area
- **[T]** 10. A CSS business owner who wants to expand in your area and hires you to make an business vicinity map that needs to be up as soon as possible. Aside from the landmarks, which features of this map needs to be prioritized?
 - a. traffic information
 - b. nearby establishments
 - c. land relief
 - d. mouse-over pop-ups