



**THE UTILITY OF E-COMMERCE COMPANIES OR ONLINE SHOPS FOR TEACHERS IN AN
ELEMENTARY SCHOOL IN HERMOSA, BATAAN, THE PHILIPPINES**

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ABSTRACT

In a developing country context, what purpose do e-commerce companies or online shops serve? This study determined the utility of e-commerce companies or online shops for teachers in an elementary school in Hermosa, Bataan, the Philippines. The theory of the consumer and the institutional approach to the study of marketing were used for its framework. The needed data were obtained through an online survey of all 31 teachers of the elementary school on November 15-18, 2021. The study found that e-commerce companies serve either as merchant middlemen who create possession and place utilities, or as agent middlemen who bring buyers and sellers together and create place utility. The study also found that: (1) majority of the respondents purchased products online once in the past 12 months, and about half of them purchased products that were priced below Php 500; (2) majority of them bought online clothes and apparel; (3) Shopee was their top choice of e-commerce company because of lower prices and discounts; and (4) less than half of the respondents had problems with returns and refunds, actual items, and delivery. The study recommends concerned government agencies to compel e-commerce companies to have an efficient system of addressing returns and refunds, monitor the performance of logistics and payment platforms, and address internet connection and data security problems. The study also recommends e-commerce companies to avoid problem recurrence through total quality management adoption, and for future research to focus on determining the usefulness of e-commerce companies to other sectors such as agriculture and fisheries.

Keywords: e-commerce, online shop, teachers, theory of the consumer, utility

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INTRODUCTION

Chaffey (2011), briefly and broadly defines electronic commerce (e-commerce) as electronically mediated buying and selling. Meanwhile, the Organization for Economic Cooperation and Development (OECD) more specifically defines e-commerce either as the sale or purchase of products or services the conduct of which is through computer networks (Department of Trade and Industry, 2021). This transaction may be done between individuals or households, businesses or enterprises, governments, and other types of organization.

E-commerce is divided into sell-side and buy-side. The former refers to business transactions done electronically by an organization and its customers. It is also called digital marketing. The latter, on the other hand, refers to transactions done electronically by an organization and its suppliers.

E-commerce is often introduced to increase revenues, reduce costs, and improve customer service (Chaffey, 2011). Aside from these benefits, e-commerce introduction can also significantly lower the entry barriers of many goods. On the one hand, many small home-based proprietors use the internet to sell goods. Established suppliers, on the other hand, are forced to close shop and adopt the e-commerce model to remain in business (Kütz, 2016).

E-commerce allows enterprises that are small and medium-sized to compete globally. It has helped least-developed and developing nations in creating jobs and achieving economic efficiency. It has also narrowed development gaps, and promoted demographic, economic, geographic, and cultural inclusiveness in these countries. By the end of 2015, in Asia and the Pacific, the size of e-commerce relative to gross domestic product (GDP) was 4.5% (Asian Development Bank, 2018).

In developing countries, e-commerce enabled farmers to reach out to more places and buyers, eliminate the need for middlemen in the marketing channels, reduce the costs of marketing activities, and earn more profits (as illustrated by Abrams & Sackmann, 2014; Balkrishna & Deshmukh, 2017; Arromdee & Suntrayuth, 2020; and Hilman, 2021).

Despite its profound impact, e-commerce has a relatively short history. According to Hermogeno (2019), electronic data interchanges (EDI) and teleshopping in the 1970s paved the way for the modern-day e-commerce store. In the middle of the said decade, a standards committee of trade representatives formalized EDI. From the late 1970s to the early 1980s, various companies adopted EDI. As the pioneering generation of e-commerce, EDI enabled companies to exchange information, place orders, and transfer funds electronically. EDI diffusion, however, was unhurried. By the latter part of the 1990s, only one percent of American and European companies were able to adopt EDI.

The quick evolution of e-commerce since the 1990s was closely linked to the development of information technology. Currently, e-commerce tools allow users to perform transactions even

without leaving their homes. These transactions range from purchases of goods to payment of bills. Despite these advances, Dos Santos, Sabino, Morais, and Goncalves (2017) recommended larger investments on safety or security, virtual intelligence, language translators, and adaptive interfaces.

Recognizing e-commerce's considerable role in business expansion, the Department of Trade and Industry (DTI) produced the country's e-commerce roadmap in 2016. The roadmap is characterized by market access, digitalization, and market integration. To realize e-commerce's potential, however, it is imperative to identify the determinants of e-commerce adoption in the country. Among the determinants identified by Quimba and Calizo, Jr. (2019) are firm size, computer availability, internet access, and the application of information and communications technology (ICT) to the operations of firms.

The DTI concedes that e-commerce is not perfectly efficient. But it argues that e-commerce transactions are much faster and cheaper than the traditional economic transactions. The time and cost reduction, in turn, decreases information asymmetry and creates mutual value. The amount of value creation, however, depends on whether e-commerce ecosystem participants are collaborating, complementing, and connecting with each other. This ecosystem is a network of interconnected functions that comprise the full cycle of buying and selling of goods and services electronically. It consists of the following elements: (1) online sellers of goods and services; (2) logistics; (3) online customers; and (4) payment supported by digital platforms, intermediaries, and government (Department of Trade and Industry, 2021).

The Foundation for Media Alternatives (n.d.) sees a bright future for e-commerce in the Philippines. The organization argues that online transactions will still be the preferred mode by many because of the continuing threat of the COVID-19 pandemic. It urges the Philippine Government to address the following issues and challenges: (1) low digital payment penetration; (2) logistics concerns, such as the delivery of goods and services outside of Metro Manila; (3) internet connection, which is slower and more expensive as compared to its Southeast Asian neighbors; (4) putting in place the necessary systems for the implementation of existing laws, and ensuring that enforcement agencies and local courts are familiar and adept at handling cases involving electronic transactions; (5) providing efficient mechanisms to address consumer complaints and concerns, including privacy issues, trade, taxation, and labor; (6) strengthening data security and protecting e-commerce platforms; (7) providing support to micro, small, and medium enterprises (MSMEs) in ICT adoption in their operations; and (8) reviewing free trade agreements, such as the Regional Comprehensive Economic Partnership (RCEP) and the Japan-Philippines Economic Partnership Agreement (JPEPA), and see how they affect and impact labor and the economy.

The Philippine Government has been doing its homework. In 2000, the Philippine Congress enacted Republic Act No. 8792, otherwise known as the Electronic Commerce Act. This piece of legislation legally recognized electronic commercial and non-commercial transactions and set the penalties for their unlawful use. It gave the penalties of a minimum fine of P100,000, a

maximum fine commensurate to the damage incurred, and a mandatory imprisonment of 6 months to 3 years for hacking, piracy, and violations of the Consumer Act (Official Gazette, 2000).

The Consumer Act of the Philippines or Republic Act No. 7394 had long been passed by the Congress in 1992. This law was enacted because it is the policy of the state to protect consumers, look after their welfare, and establish business and industry standards. The law's Second Article lists five specific objectives. The first objective is to protect consumers against health and safety hazards. The second objective is to protect them against deceptive or unfair sales acts or practices. The third objective is to provide them with the information necessary in making sound decisions or choices. The fourth objective, meanwhile, is to give them the means to redress. The fifth and final objective is to involve their representatives in formulating social and economic policies. Those who violate this law will be fined between P1,000 to P10,000 or imprisoned between two months to one year, or both if the court so decides.

In 2019, Republic Act No. 11337 or the Innovative Start Up Act was enacted to provide benefits and programs to startup companies and enterprises. Among the benefits are: (1) receiving full or partial subsidy for the application and processing of business permits and certificates; (2) getting the host agency's endorsement for expedited application processing with other agencies of the government; (3) receiving subsidy for the use of office venue, facility, and equipment owned by public or private organizations including those that are repurposed; and (4) receiving grants for training, research, development, and project expansion (Official Gazette, 2019).

Also in 2019, Republic Act No. 11293 or the Philippine Innovation Act was passed to adopt innovation as a vital component of the country's development policies, drive inclusive development, and promote the growth and national competitiveness of MSMEs (Official Gazette, 2019). The law also created the National Innovation Council which was given the task of formulating the National Innovation Agenda and Strategy Document. Section 28 of the Act requires the NEDA to coordinate with the DOST and the DTI in drafting the law's implementing rules and regulations (National Economic and Development Authority, 2020).

In addition to the laws mentioned in the preceding paragraphs, another law was passed in 2002 to support barangay micro business enterprises (BMBEs) all over the country. Republic Act No. 9178 or the Barangay Micro Business Enterprises Act directs city or municipal treasurer offices all over the country to register BMBEs. Upon registration, BMBEs will enjoy income tax exemption and waiver of fees. They will also enjoy exemption from the Minimum Wage Law, provided they give their regular employees health care benefits and social security. They can avail a special credit window in government financial institutions such as the Land Bank of the Philippines (LBP) and the Development Bank of the Philippines (DBP). Finally, they will be provided with technology transfer, training, production and marketing assistance by the DTI, the DOST, and other government agencies (De Leon, 2020).

Closely following and intertwined with the development of e-commerce is the evolution of online shopping. According to Jusoh and Ling (2012), online shopping is the purchase of goods and services from merchants on the internet. Online shopping allows customers to visit online shops as they sit comfortably in their homes. According to Donszem (2020), an online shop could take two forms. The first one connects businesses to customers (B2C), while the second one connects businesses to other businesses (B2B). When the English merchant Michael Aldrich invented online shopping in 1979, he had covered both the B2C and B2B forms of online shopping.

Meanwhile, Donszem (2020), considers the invention of the first web browser – the World Wide Web (WWW) – by Tim Berners Lee in 1990, as the first key event in the history of online shopping.

This was followed by Netscape's development of an encryption-based internet security protocol called Secure Sockets Layer (SSL) in 1994. Another key event was the establishment of the first online marketplace Amazon.com by Jeff Bezos in 1995. In 1998, the online payment system PayPal was established. A year later, the online Chinese marketplace Alibaba.com was founded by Jack Ma. In 2000, Google launched its advertising service firm AdWords. Four years later, Shopify was also launched. Then, in 2006, PayPal made the exchange of money possible through mobile phones. Finally, by 2020, the Internet has become a virtual shopping mall.

In this current context, one might ask what the utility of online shopping is for the people of developing countries such as the Philippines. Among the country's almost 110 million people, this question can be addressed to public school teachers who are expected to make online purchases not only for home consumption, but also for their teaching needs.

This study's general objective was to determine the utility of e-commerce companies or online shops for teachers in an elementary school in Hermosa, Bataan, the Philippines. Its specific objectives were to determine: (1) the frequency and the amount of their online purchases; (2) the product types that they usually purchase online; (3) the e-commerce company or online platform they most frequently use and the reasons for using it; and (4) the problems they encounter when making online purchases. To realize these general and specific objectives, the theory of the consumer and the institutional approach to the study of marketing were used as elements of this study's framework.

The theory of the consumer describes how consumers allocate their incomes among various goods and services, with the aim of maximizing their well-being. In order to comprehend the behavior of consumers, Pindyck and Rubinfeld (2005) suggest going through three distinct steps. The first step is understanding the preferences of consumers, e.g., why they prefer one good to another. The second step is recognizing the budget constraint that consumers face. This budget constraint is the reason why there is a limit to the quantities of goods and services they can purchase. The third and final step is understanding how consumers choose

combinations of goods and services that maximize their satisfaction, given their preferences and budget constraints.

Pindyck and Rubinfeld (2005) also made three basic assumptions on consumer preferences. The first assumption is completeness, which means consumers are able to compare and rank all possible market baskets. The second assumption is transitivity. This means that if a consumer prefers market basket X to market basket Y, and market basket Y to market basket Z, he or she also prefers market basket X to market basket Z. The third and last assumption is the belief that more is better than less. Given that goods are desirable, consumers prefer more of them to less.

Utility broadly connotes benefit or well-being. But for Pindyck and Rubinfeld (2005), utility is a numerical score representing the satisfaction that a consumer gets from a given market basket. The market basket that maximizes utility must be the most preferred by the consumer, and at the same time, is affordable to him or her.

To understand the institutional approach to the study of marketing, on the other hand, a few concepts need to be defined. First among them is marketing. Marketing includes all the services performed in bringing the product from the point of production to the point of consumption. According to Casavant, Infanger, and Bridges (1999), marketing activities have the following stages: (1) production; (2) assembly; (3) processing; (4) wholesaling; (5) retailing; and (6) consumption.

Since consumption is both the purpose and result of production and marketing activities, marketers must focus their activities on satisfying consumer wants and needs. It is through the performance of these marketing activities that marketers add value to raw commodities and provide the final product that consumers want, and in the process create time, place, form, and possession utilities. Time utility is getting the product to the consumer when it is needed, e.g., through storage and inventory maintenance. Place utility is getting the product to where it is desired by the consumer, e.g., through transportation. Form utility is the process of putting the raw product into the style, appearance, or quality desired by the consumer, e.g., through processing. Possession utility is transferring the product's ownership to the person who wants it, e.g., through the efforts of many people in the marketing channels – brokers who find buyers and sellers, government that provides grades and standards, and speculators who spread the ownership over a palatable time frame until the final consumer is identified. In terms of marketing, the concept of utility simply means usefulness or desirability of a product for a given reason (Casavant, Infanger, & Bridges, 1999, pp. 331-333).

Casavant, Infanger, & Bridges (1999) gave alternative definitions of marketing margin. Marketing margin is the price difference of the raw product and the final product. It is also the difference between the price received by the producer and the price paid by the consumer. It is also the sum of the costs of marketing services or the utilities created for the product.

The institutional approach to the study of marketing emphasizes who is doing the marketing activities or marketing functions. Generally, they are performed by the following middlemen: (1) merchant middlemen such as the wholesalers and retailers who take title to the product and own it as they move it through the market system; (2) agent middlemen such as brokers and commission men who do not take title to the goods, but searches a market for a seller, and a supplier for the buyer; (3) speculative middlemen who purchase and sell products, and make profits from price movements rather than other market functions. They take ownership of the product and assume price risk as a means of generating profits, if price movements are favorable; (4) processors or manufacturers who transform inputs into a more desirable product; and (5) facilitators who provide the extremely necessary functions of market information, grading, and standardization, aid the middlemen in performing marketing activities e.g., trade associations that disseminate information to specific groups, firms that provide physical facilities for bringing buyers and sellers together (Casavant, Infanger, & Bridges, 1999, pp. 340-342).

METHODOLOGY

This study used a quantitative research approach and a survey research design. The unit of analysis was the individual teacher in a public elementary school in Hermosa, Bataan, the Philippines. The school was randomly selected among the 18 public elementary schools in the Municipality of Hermosa.

Permission to conduct the study and the online survey was obtained from the school principal on November 12, 2021. On the same day, the principal gave the email addresses of the 31 teachers in her school. The link to the Google survey questionnaire was later sent to these email addresses. The teachers submitted their responses to the questionnaire from the 15th to the 18th of November 2021.

The survey questionnaire consisted of 22 items. Among these, three items had two sub questions each. The most important questions were on the socio-demographic and economic profile of the survey respondents, the frequency and the amount of their online purchases in the past 12 months (January-December 2021), the product types that they usually purchase online, the e-commerce company or online platform they most frequently use and the reasons for using it, and the problems they encounter when making online purchases.

The survey responses were summarized in an Excel spreadsheet. The spreadsheet in turn, facilitated the computation of means or averages of numerical data and the determination of modal responses for non-numerical or qualitative data.

RESULTS AND DISCUSSION

Socio-Demographic and Economic Profile of Respondents

An overwhelming majority (90%) of the respondents are females. Their mean age is 32 years. Most of them (61%) reside outside the Municipality of Hermosa but within the Province of Bataan. Over half of them (52%) are single, and have at least one dependent. Majority of them (84%) hold a bachelor's degree in elementary education, while minority of them (16%) have a master's degree also in elementary education. Most of them (74.19%) currently hold a Teacher 1 position, but all of them have a permanent or tenured status. Because of this relatively low teaching position, their corresponding monthly salary is below Php 25,000.

Out of the 15 married respondents, 12 have spouses who are employed. Seven (58%) of them have professional jobs, while five (42%) have technical or vocational jobs. The seven professionals consist of two teachers, two engineers, a call center agent, a police officer, and a web designer. The five who have technical or vocational jobs consist of an electrician, a tile setter, a bus driver, a machine operator, and one in marble work. Eight (66.66%) of the 12 spouses, meanwhile, are earning less than Php 25,000 a month.

Only three (10%) of the 31 respondents have other sources of family income. The first one earns from online selling, the second one receives money from her son, and the third one receives money from a relative who lives in the same house. Twenty-eight (90%) of the respondents, meanwhile, do not have other sources of family income. The socio-demographic and economic data of the respondents are summarized in Table 1.

Table 1

Socio-Demographic and Economic Data of Respondents (N = 31)

Socio Demographic		Frequency n	Percentage %
<i>Sex assigned at birth</i>	Females	28	90
	Male	3	10
<i>Mean age in years</i>	32		
<i>Residential or home address</i>	within Hermosa	12	39
	outside Hermosa but within Bataan	19	61
<i>Civil status</i>	Single	16	52
	Married	15	48
<i>Average number of dependents</i>	1		

<i>Highest educational attainment</i>	Bachelor's degree	26	84
	Master's degree	5	16
<i>Current position</i>	Teacher 1	23	74.19
	Teacher 2	2	6.45
	Teacher 3	5	16.13
	Master Teacher 1	1	3.23
<i>Employment status</i>	Permanent/Tenured	31	100
<i>Monthly salary</i>	below P25,000	23	74.19
	P25,000-P29,999	6	19.35
	P30,000-P34,999	1	3.23
	P40,000-P44,999	1	3.23
<i>Occupation of spouse</i>	Professionals	7	58
	Teachers	(2)	
	Engineers	(2)	
	Call center agent	(1)	
	Police officer	(1)	
	Web designer	(1)	
	Technical/Vocational	5	42
	Electrician	(1)	
	Tile setter	(1)	
	Bus driver	(1)	
	Machine operator	(1)	
In marble works	(1)		
<i>Monthly salary of spouse</i>	below P25,000	8	66.66
	P30,000-P34,999	2	16.66
	P45,000 and more	2	16.66
<i>Other sources of family income</i>	with other sources	3	10
	online selling	(1)	
	son	(1)	
	relative who lives in the same house	(1)	
	without other sources of income	28	90

Frequency and Amount of Online Purchases

In the past 12 months (January – December 2021), majority (58.06%) of the respondents made only one online purchase, while the rest made three or more purchases. This frequency of online

purchases for the past 12 months does not imply the respondents' increased preferences for online shopping. Since comparison with physical shopping is beyond the study's scope, the frequency counts could mean adoption instead of preference. Close to half (41.94%) of the respondents made online purchases that were below Php 500, while over a quarter (29.03%) of them had purchases between Php 500 and Php 599. These relatively inexpensive online purchases could be due to the fact that an overwhelming majority (74.19%) of them only have a Teacher 1 position that carries a monthly salary of less than Php 25,000 only. When their teaching position and salary increase, they will be able to make relatively more expensive online purchases. This particular finding validates the Asian Development Bank's (2018) finding that e-commerce promotes, among others, demographic and economic inclusiveness.

Product Types Purchased Online

For a majority (74%) of the respondents, clothing and apparel were the most frequently bought products online. This is probably because they need new clothes for school, district meetings, and other administrative or social functions. Clothing and apparel were followed by bags, shoes, and mobile gadgets and accessories (39%), food and other perishable items (35%), and hair, skin, and personal care products (32%). When purchasing online, price and discounts were their top consideration (77%), followed by product quality (65%), and convenience and safety (55%). The top consideration given to price and discounts is understandable given the fact that just like all other consumers, the respondents faced a budget constraint. They maximize satisfaction by choosing the market basket that they can afford, and at the same time, give them the highest satisfaction or utility.

The respondents behaved consistently with the theory of the consumer. Given their preferences and budget constraints (as indicated by their monthly salary of less than Php 25,000 for instance), they purchased product types that would give them the highest satisfaction or utility. It is highly possible that there are other product types desired by the respondents that will give them an even higher level of satisfaction or utility. Because of their budget constraint, however, they cannot afford them.

Their preferences are complete or indicative of their ability to compare and rank product types available online. Majority of them preferred to purchase online clothing and apparel, while the minority chose bags, shoes, mobile gadgets and accessories, food and perishable items, among others. If these product types were taken as market baskets and the frequency of their online purchases as indication or signal of the respondents' preferences, the theory of the consumer's assumptions on completeness and transitivity of consumer preferences, as discussed by Pindyck and Rubinfeld (2005), are validated. Their preferences also exhibited the assumption that more is better than less. Majority of them had price and discounts as the top consideration when purchasing online, as these allowed them to purchase more given their budget constraint.

Product Types Never Bought Online

Asked what product types they would never purchase online, nearly half (48%) of the respondents named jewelry and accessories, while more than a quarter answered makeup and fragrances (35%), food and perishable items (29%), and laptops and computers (29%). They would never buy the above-mentioned items online because of the following reasons: quality or trust issues (39%); safety and security (29%); not necessary (23%); and expensive, and had delivery or shipping damage (10%). Addressing these quality or trust, and safety and security issues would be an opportunity for e-commerce companies or online shops to sell in this market segment characterized by relatively low-salaried public elementary school teachers.

Choice of E-Commerce Company or Online Shop

Eighty four percent (84%) of the respondents named Shopee as their top choice of e-commerce company or online shop, while only 16% of them chose Lazada. Shopee was considered as their top choice because it sells items at lower prices and gives generous discounts (52%), it sells good quality products (19%), and it is convenient and safe (13%). On average, the 31 respondents were highly satisfied with the e-commerce company or online shop of their choice. On a scale of 1-3 (with 3 being highly satisfied, 2 being satisfied, and 1 being somewhat satisfied), their mean rating was 3. Asked what would make them switch to another e-commerce company or online shop, 58% of the respondents said better quality or product standard; 32% of them said lower prices and bigger discounts; and 16% of them said more convenient and safer service.

The e-commerce company or online shop of their choice, whether Shopee or Lazada, serves either as a merchant middleman or as an agent middleman. When a customer purchases from an e-commerce company or online shop's own account such as Shopee Mart, the e-commerce company or online shop takes title to the product by buying it wholesale from a manufacturer, selling it online at a retail price, and delivering it to the customer's address. It creates possession and place utilities, and in this case, serves as a merchant middleman. However, when a customer purchases a product from a manufacturer's account in an e-commerce company's online platform, the e-commerce company simply brings the buyer and the seller together, does not take title to the goods, and creates place utility through delivery of the product to the customer's address. In this latter case, the e-commerce company or online shop serves as an agent middleman. These findings validate Casavant, Infanger, and Bridges' (1999) descriptions of merchant and agent middlemen, and their application of the institutional approach to marketing studies.

Problems Encountered When Making Online Purchases

Problems with returns and refunds were encountered by 42% of the respondents. Problems with the orders or the actual items purchased, on the other hand, were experienced by 32% of them, while 29% of them encountered problems with delivery or shipping. After experiencing the said problems, 39% of the respondents learned to confirm with the seller before product ship out or delivery; 19% of them learned how to follow up with the courier using the tracking number; and

16% of them made it a habit to check customer reviews or comments. It is noted that logistics concerns, such as problems with delivery of goods and services outside of Metro Manila, was one of the problems that has been brought up by the Foundation for Media Alternatives (n.d.). The existence of this problem is validated in the study site – Hermosa, Bataan. Table 2, meanwhile, shows the respondents' more detailed answers to the survey questions.

Table 2

The Respondents' Preferences for Online Shopping, January-December 2021

Respondents' Preferences for Online Shopping		Frequency n	Percentage %
<i>Frequency of online purchases in the past 12 months</i>	once	18	58.06
	three times	8	25.81
	more than four times	4	12.90
	four times	1	3.22
<i>Amounts of online purchases</i>	below Php 500.00	13	41.94
	Php 500.00 - Php 599.00	9	29.03
	Php 1,000.00 - Php 1,499.00	4	12.90
	Php 1,500.00 - Php 1,999.00	4	12.90
	Php 3,000.00 and above	1	3.22
<i>Product types purchased online</i>	clothing & apparel	23	74
	bags, shoes, and mobile gadgets & accessories	12	39
	food & perishable items	11	35
	hair, skin, & personal care	10	32
	medicine and home & kitchen appliances	6	19
<i>Top 3 considerations for purchasing online</i>	price & discounts	24	77
	product quality	20	65
	convenience & safety	17	55
<i>Product types they will never purchase online</i>	jewelry & accessories	15	48
	make up & fragrances	11	35
	food & perishable items and laptops & computers	9	29
<i>Reasons why they will never purchase them online</i>	quality or trust issues	12	39
	safety & security	9	29

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	not necessary	7	23
	expensive and had shipping damage	3	10
<i>Choice of e-commerce company or online shop</i>	Shopee	26	84
	Lazada	5	16
<i>Reasons for choice of e-commerce company or online shop</i>	lower prices & generous discounts	16	52
	good product quality	6	19
	convenience & safety	4	13
	availability & variety of products	3	10
	good customer reviews, popular endorsers, & nice advertisements	1	3
<i>Degree of satisfaction with e-commerce company or online shop of choice</i> 3 = highly satisfied; 2 = satisfied; 1 = somewhat satisfied	highly satisfied	16	52
	satisfied	15	48
<i>What would make them switch to another e-commerce company or online shop</i>	better quality or product standard	18	58
	lower prices & bigger discounts	10	32
	more convenient & safer service	5	16
	free vouchers	3	10
	wider product availability	2	6
<i>Problems encountered when making online purchases</i>	problems with returns & refunds	13	42
	problems with orders or actual items	10	32
	problems with delivery or shipping	9	29
	problems with payments	4	13
	problems with account access & safety	2	6
<i>Respondents' solutions to online shopping problems</i>	confirming with seller before product ship out	12	39
	following up with courier using tracking number	6	19
	checking customer reviews or comments	5	16
	choosing safer or more secure payment options, e.g., COD	2	6

	choosing e-commerce company or online shop with cheaper shipping fee	1	3
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CONCLUSIONS AND RECOMMENDATIONS

This study concludes that e-commerce companies serve either as merchant middlemen who create possession and place utilities, or as agent middlemen who bring buyers and sellers together and create place utility. The study finds that majority of the teachers in the case of public elementary school in Hermosa, Bataan, the Philippines: (1) are purchasing products online at least once in the past 12 months, and about half of them purchasing products that are priced below Php 500; (2) are buying online, primarily clothes and apparel; (3) consider Shopee as their top choice of e-commerce company or online shop because of lower prices and generous discounts; and (4) have problems with returns and refunds, orders or actual items, and delivery or shipping. To avoid recurrence of these problems, they are confirming with sellers before delivery or product ship out, following up with couriers using tracking numbers, and checking customer reviews and comments.

Despite the abovementioned do-it-yourself solutions of the respondents, the study recommends: (1) the DTI to compel e-commerce companies or online shops to have an efficient system of addressing returns and refunds, and problems with the orders or actual items; (2) e-commerce companies or online shops to adopt total quality management (TQM) to avoid the recurrence of problems with the orders or actual items and consequently reduce (if not eliminate) the need for returns and refunds; (3) the DTI to monitor the performance of logistics platforms such as LBC, DHL, and 2Go, and compel them to improve their delivery or shipping service; (4) the DTI and the *Bangko Sentral ng Pilipinas* to regularly check the performance of payment platforms such as Gcash and PayMaya, and make them improve their payment services; and (5) the DICT and telecommunications companies to address quickly the problems with internet connection and data security. Finally, future research on e-commerce should focus on determining its utility or usefulness to other sectors such as agriculture and fisheries. This is to further validate the Asian Development Bank's (2018) finding that e-commerce promotes demographic and economic inclusiveness.

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