The Impact of E-Commerce on Consumer Purchasing Patterns in Cabanatuan City, Nueva Ecija

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Abstract: **This paper presents the impact of e-commerce on consumer purchasing patterns in Cabanatuan city, Nueva Ecija.**

Keywords: **e- commerce, purchasing patterns, retail.**

1. Introduction

The modern-day world has experienced many changes in the retail sector, with the swift growth of e-commerce being among the most transformative changes in the worldwide retail sector throughout the past decade, and the Philippines is no exception. Increasing digitization of both Internet penetration and broader smartphone use, online payment gains, and logistics technology have all contributed to the speed of adoption of online retail by Filipino consumers (Anne, 2024). The COVID-19 pandemic served as a catalyst: lockdowns and mobility restrictions influenced a significantly large portion of consumers who used to rely on brick-and-mortar stores to move online to the first time and a large percentage of those consumers have remained on e-commerce platforms even after restrictions have been opened (Ramos et al., 2024). These structural and situational forces have not only provided more bounty of online dealings, but have also transformed shopper priorities — convenience, price rivalry, and platform trustworthiness have escalated as crucial buying decisions.

Available literature on online shopping among Filipinos indicates that there are a number of common factors that have determined e-commerce behavior. Price sensitivity is also a significant feature — a large number of consumers are active price watchers, comparing prices on platforms and buying at the same time when there is a sale or a promotion on the platform (Bulacan, 2022). Repeated use of platforms can be highly predicted by time savings and perceived convenience (measured in ease of browsing, payment methods and speed of delivery). A combination of guaranteed payments, correct product description, seller rating, and delivery reliability, also plays a big role in the desire to conduct a transaction and the level of risk perceived by consumers to conduct a purchase

online (Ong, 2024; Bulacan, 2022). Social commerce and user-generated content (reviews, unboxing, and influencers endorsements) also create more influence about the quality of the products and affect the intentions to buy products, especially young groups (Gen Y/Z). These behavioral motivators indicate that consumer decisions and allegiance are directly and quantitatively impacted by platform strategies (pricing, promotions, product assortment, customer service, and return policies).

E-commerce development also presents difficulties and impact on the conventional retailing and local economies. Investigations in diverse Philippine regions have shown that there is a statistically significant change in purchases between physical and online stores where there is a decrease in foot traffic and income of certain brick-and-mortar stores as consumers redirect household spending to online shopping where prices and convenience are more favorable (Goel, 2023; local SME studies, 2024-2025). The impact is, however, not completely bad, as there are local businesses that either adopt e-commerce or apply omnichannel approaches and state increased market coverage and increased sales in general, which hints at the common effect of adaptation, as opposed to displacement (SME studies; e.g., Albay SMEs case). The level of local competitiveness therefore is pegged on digital preparedness: those companies that are fast in adopting e-commerce, hedge their prices, and have good customer service and trust indicators are more likely to be in a better position to hold on customers in this changing environment.

Although there is an increased national and sectoral research, very little research has been conducted on some mid-sized urban centers like Cabanatuan City. Smaller cities offer their own mix of consumer base, logistics, and local retail organization, which may not be the same as that of the metropolitan behavior; rural-urban connections, income distribution of households, and local market loyalty expectations may soften the rate and character of the adoption of e-commerce. Localized research is then required to unravel

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the national trends on city level, as well as, extract contextually suitable suggestions on the local businesses and policymakers. In the case of Cabanatuan City, an urbanized hub composed of students, wage earners, small entrepreneurs and returning migrant families, both individual strategy and local policy intervention will be informed by understanding whether online shopping can result in long-lasting modifications in the purchase patterns (e.g., permanent redistribution of the budget, change in loyalty toward the national platforms or merely occasional replacement during promotional time).

Descriptive quantitative research studies of consumer e-commerce behavior in the Philippines have typically employed survey measures to measure the construct of price sensitivity, convenience, perceived product quality, trust, and frequency of online purchases (Bulacan, 2022; Yong et al., 2023). The sample is often described using weighted mean, frequency distributions and standard deviations to provide a description of the attitudes and cross-tabulations (or in some instances, inferential tests) to depict associations between demographic variables and use of e-commerce. Using these methodologies, a descriptive quantitative study of the city level of the Cabanatuan City can give credible baseline data of the rate of online purchases, the preferred platform, and the exact platform strategies most effective in local consumers. This data can, in turn, be used in making business decisions (e.g., promotions, product assortment and customer service focus) and in municipal policymaking (e.g., digital literacy initiatives, SME e-commerce assistance).

Lastly, the topicality of the research on the local effects of e-commerce is due to the fact that the Philippines is actively working to improve its digital infrastructure and consumer protection. Information on local trust problems (security of payment, experience of fraud, success rates in returns) and the economic impact of the introduction on the local retailers are very important inputs in the development of regulatory protection and support programs balancing consumer protection and the chances of digital commerce proliferation. An intensive analysis of Cabanatuan City will hence serve as an addition to academic content as well as practice recommendations that will be specific to the city socio-economic situation-connecting national e-commerce trends and local realities.

2. Review of Related Literature

In this section, a thematized review of literature are presented. This includes studies conducted in the similar field as this research. These studies described what was already known, and what aspects need further investigations.

Digitizing the Consumer Environment and E-Commerce. E-commerce is one of the most recent phenomena of contemporary consumerism that is changing the manner in which people learn about, analyze, and buy products. With its development, the nature of online retailing has redefined the historical relationship between marketing and consumption through the introduction of digital intermediaries, accessibility of products, and a shift in how consumers make the decision (Goel, 2023). As stated in the article by Anne (2024), the past several years witnessed the e-commerce growth in the Philippines in exponential proportions that can be attributed to the adoption of smartphones, the development of better digital payment systems, and changing consumer demands toward convenience. Similarly, Ramos et al. (2024) observed that COVID-19 pandemic triggered this shift, since consumers were restricted in their travels, which drove them to seek online shopping methods, and many of them remained in that method after the pandemic because it is effective and has a wide range of options.

The development of online retail in the world is directly connected with the technological innovation. Goel (2023) highlighted that online shopping has already become more personalized and efficient, which led to customer satisfaction and loyalty because of the application of artificial intelligence, recommendation algorithms, and data-driven personalization. Equally, Maulana et al. (2023) talked about the power of predictive analytics and customer segmentation which enables platforms to come up with promotions that are specific and can increase user engagement. Such technologies have become more popular in the Philippines where platforms like Shopee and Lazada, which incorporate gamified elements, cashback incentives, and flash sales, have become popular among price-sensitive Filipino shoppers (Bulacan, 2022).

Demographic Profile and Online Consumer Behavior. The demographics are one of the main factors influencing the involvement in e-commerce. Research has always indicated that age, sex, income and occupation influence the nature, rate and incentive of online purchases. The younger generations such as Generation Z and Millennials find it easier to navigate online interfaces, using reviews, and exploring online brands (Yong et al., 2023). On the contrary, older consumers are more concerned with trust and they would choose the verified seller or official stores (Quimba & Calizo, 2019). The online spending is also quite dependent on income: the consumers with higher monthly income are more likely to buy branded or high-quality goods online, whereas the low-income groups prefer to buy necessities or promotional products (Rodelas et et al., 2023).

Occupation also has an effect on purchasing preferences. Remote workers and office employees are more likely to appreciate the convenience of delivery and time-saving, whereas self-employed people are usually encouraged by price competitiveness (Ong, 2024). Online shopping frequency is also lifestyle-related because the more time you spend online, the more you are exposed to online advertising and influencer marketing, which makes them more likely to make the purchase (Marie, 2024). More so, the e-commerce platform of choice tends to rely on the perceived reliability and ease of use of the platform, with Shopee prevailing in this case since it has a friendly user interface and frequent promotional opportunities (Bulacan, 2022).

Purchasing Behavior of Consumers in E-Commerce. Online shopping habit is covered by numerous psychological and behavioral facets that include price sensitivity, convenience, trust and perceived quality of the product. A number of research works highlight that price is the most determining aspect to the Filipino consumers. Bulacan (2022) discovered that users tend

to buy in sales periods or in case of free shipping. On the same note, Bhatt & Nagvadia (2021) reported that the image of low prices combined with the convenience of price comparison, as opposed to a conventional store, would prompt consumers to prefer online shopping.

Online consumer satisfaction is also largely dependent on convenience and accessibility. Ong (2024) explains how Filipino customers enjoy having the opportunity to shop and buy, at any time, without having to exert physical effort and travel costs involved in traditional shopping. Besides, improved logistics and payment methodologies, including cash-on-delivery and e-wallet integration, have minimized the resistance to the purchasing procedure. Confidence in the seller is a mediator variable in the repeat at purchase behavior (Goel, 2023).

Influence of E-Commerce on the Purchasing habits. With the emergence of e-commerce, the conventional retail has inevitably been transformed. According to Goel (2023), physical stores have been experiencing a downward trend in foot traffic since customers are making more budget allocations to online stores. Flores (2025) study found out that small and medium enterprises (SMEs) in Albay had positive and negative impacts: some of the businesses lost local customers, but others managed to overcome the crisis as they adopted online channels, expanding to larger markets. The movement of local consumers through the shift to digital platforms in the city of Cabanatuan and other cities of the same nature has involved the presence of competitive pricing and enhanced logistics infrastructure (Anne, 2024).

Patterns of budgetary allocations have also changed. A report by Rodelas et al. (2023) simply reveals that a significant fraction of Filipino families have established a specific budget to spend on online shopping irrespective of traditional markets. Consumer loyalty is also influenced by this shift since those who have positive online shopping experiences will develop high brand or platform attachment, which will decrease their willingness to go back to the offline stores (Marie, 2024).

E-Commerce Platform Strategies. Strategy Platform is an important factor that determines consumer buying behavior. Ong (2024) has highlighted the fact that effective e-commerce sites use five strategic dimensions, which include pricing, promotion, product mix, customer care and return/refund policies. The strategy of competitive pricing and regular discounts works particularly well in the Philippine market, where the majority of the customers are very price-sensitive (Bulacan, 2022). User engagement and repeat buying are promoted through promotional tactics including flash sales, collaboration with one or more influencers, and loyalty programs (Bhatt and Nagvadia, 2021).

Consumer satisfaction is also determined by product strategy which entails the provision of a wide variety of products. Yong et al. (2023) emphasized that the perceived choice freedom when there is a variety in the products raises customer satisfaction. Moreover, effective consumer service, namely, a responsible response and clear delivery monitoring, supplements positive purchase trust and retention. Return and refund policy is also critical because it helps to reduce the

perception of risk and create trust between the consumers and sellers (Goel, 2023).

Local Context. Although literature on e-commerce is abundant in the country and the world as a whole, very little has been done in provincial cities like Cabanatuan City. The presence of all socio-economic classes is unique in their way since the city consists of students and middle-income workers, small entrepreneurs, which makes it possible to analyze the behavior of e-commerce (Anne, 2024). The online shopping system has become part of the daily practice of local consumers, where convenience and affordability have been named as the key factors (Marie, 2024). Nevertheless, the local SMEs still struggle with obstacles in the form of digital illiteracy, logistics, and distrust in making transactions online (Flores, 2025).

That being the case, the study of consumer demographics/e-commerce strategies interaction and changing buying patterns in Cabanatuan City will be informative. This kind of finding can inform business adaptation strategies locally, inform policy makers about the requirements of digital infrastructure, and help establish a sustainable coexistence of traditional and online systems of retailing.

The E-Commerce Change in Consumer Behavior. E-commerce has transformed consumer behavior dynamics by restructuring the buying motivation and decision-making approaches. Faustino and Lopez (2024) state that mobile application navigation and usability have become the focal point of rising online shopping behavior, particularly among digital-based millennials. Likewise, Khan et al. (2023) emphasized that time efficiency is the determinant of shopping behavior of working people who do not have the time to visit the traditional shop but prefer convenience. Besides, Mofokeng (2021) highlighted that quick and efficient delivery is a significant factor of consumer satisfaction and loyalty. All these findings are indicative that the ease of use, convenience and accessible technology has changed the expectations of consumers and made e-commerce a major conduit of transactions of this moment.

Pricing and Profitability in the Online Markets and Promotions. The price competition and the digital promotional services are the important factors that determine consumer purchase behavior. Obiso et al. (2025) found out that the promotion of free shipping and flash sales can lead to impulsive purchase especially by younger Filipino customers who appreciate discounts and special offers. Similarly, the Department of Agriculture (n.d) noted in a parallel study that consumers are encouraged to switch consumer spending behavior to online retailing by major promotional events like the Mega Sale Days. Nevertheless, as observed by Dulay et al. (2022), elderly consumers are more reserved, and their preferences rely on the authenticity of products and the credibility of sellers rather than temporary discounts. The implications of these findings are that promotional strategies need not be used on the various age groups in the same manner and at that, marketers need to strike a balance between the affordability and the trust building factors.

Perceived risk, Trust, and Product Quality in E-Commerce Transactions. Success of online retail will still focus on the

consumer trust and perceptions of the quality of the products. According to Santos and Santos (2020), the ability to use descriptive words and a large choice of items reduces the perceived risk and improves faith in purchasing online. In the meantime, Singco et al. (2023) have discovered that influencer endorsements and online reviews have a strong influence on perceptions of product authenticity and reliability, as modern alternatives to in-person inspection. Moreover, Hipolito and Pereira (2025) stated that effective policies on the refund and returning foster the consumer confidence and reduce any reluctance to conduct a digital transaction. These facts demonstrate that transparency, social proof, and product assurance can be considered the key elements of trust building in online marketplaces, particularly in developing economies such as the Philippines.

The Interruption of Conventional Retailing to Business. E-commerce has significantly broken the normal pattern of the retail system leaving businesses with no choice than to be innovative and adaptive. According to a study by Department of Agriculture (n.d), online sales events make consumers shun physical stores especially in cases of promotions. Baltazar et al. (2021) affirmed this by stating that retailers that combine both online and offline, which include physical pickup locations and online catalog search, are better placed to hold customers. In addition, Astoriano et al. (2022) highlighted that the reputation of a platform has turned into brand loyalty, which impacts a repeat consumer behavior. All these results show that the digitalization does not marginalize the conventional retail but rather forces it to develop into hybrid or omnichannel designs that are adaptable to the changing lifestyles of consumers.

Consumer Loyalty and Strategic Management Digital Marketplaces. Management of the e-commerce platforms are a set of strategies that will focus on customer experience and retention. Secretaria et al. (2021) found out that customer satisfaction and repurchase intentions are directly predicted by trust and platform-security. Hippolito and Pereira (2025) further included that clear policies and responding customer care systems enhance confidence retention and alleviate apprehension on purchases. Moreover, Raon et al. (2021) emphasized the effect of social media marketing and influencer endorsements as some of the key drivers of consumer interest. Lastly, Mofokeng (2021) emphasized the fact that quick, effective customer service strengthens the loyalty and guarantees future prosperity. These articles imply that online business strategic management should incorporate technological, promotional and interpersonal aspects towards developing a sustainable e-commerce ecosystem.

3. Theoretical Framework

This study is anchored on the Technology Acceptance Model (TAM) developed by Fred Davis (1989) and supported by the Consumer Behavior Theory by Schiffman and Kanuk (2015). These theories collectively explain how technological innovation and consumer-related factors influence purchasing behavior and shape the transition from traditional to online shopping.

The Technology Acceptance Model (TAM) explains how individuals come to accept and use new technologies. According to Davis (1989), two fundamental beliefs determine technology adoption: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). Perceived usefulness refers to the extent to which an individual believes that using a particular system enhances their performance or convenience, while perceived ease of use reflects the degree to which the system is free of effort. These two factors influence the user's attitude toward technology, which in turn determines their intention to use and actual usage behavior.

In the context of this study, TAM serves as the foundation for understanding how consumers in Cabanatuan City engage with e-commerce platforms. Perceived usefulness manifests through the advantages consumers associate with online shopping—such as convenience, accessibility, variety of products, competitive pricing, and promotional offers. Perceived ease of use appears in consumers' preference for platforms that are secure, user-friendly, and reliable in terms of delivery, payment options, and customer service. Together, these perceptions shape consumers' overall purchasing behavior in e-commerce environments, influencing their shopping frequency, spending habits, and loyalty to online stores.

Complementing TAM, the Consumer Behavior Theory emphasizes that purchasing decisions are shaped by personal, psychological, and social factors. According to Schiffman and Kanuk (2015), consumer behavior involves the processes by which individuals select, purchase, use, and dispose of products to satisfy their needs and desires. This theory supports the idea that demographic characteristics—such as age, gender, income, and occupation—play a significant role in determining shopping preferences and adoption of e-commerce platforms. Additionally, exposure to marketing strategies, such as pricing, promotions, and product quality, also influences consumers' buying decisions.

By integrating TAM and Consumer Behavior Theory, this study establishes a comprehensive framework that explains how demographic factors and e-commerce platform strategies (independent variables) influence consumer purchasing behavior (mediating variable), which subsequently impacts traditional purchasing patterns (dependent variables). The framework further supports the development of recommendations that will help businesses and consumers adapt to the growing digital retail environment in Cabanatuan City, Nueva Ecija.

The research paradigm illustrates the relationship among the variables that guide this study. It presents the logical flow of how the independent variables influence the mediating variable, which in turn affects the dependent variable, leading to the formulation of recommendations for business adaptation.

As shown in the figure 1, the Demographic Profile of Respondents—which includes age, gender, monthly income, occupation, frequency of online shopping, and preferred e-commerce platform—and the E-Commerce Platform Strategies, such as pricing, promotion, product offerings, customer service, and return/refund policies, serve as the independent variables of the study. These factors are expected

to significantly shape how consumers perceive and interact with online shopping platforms.
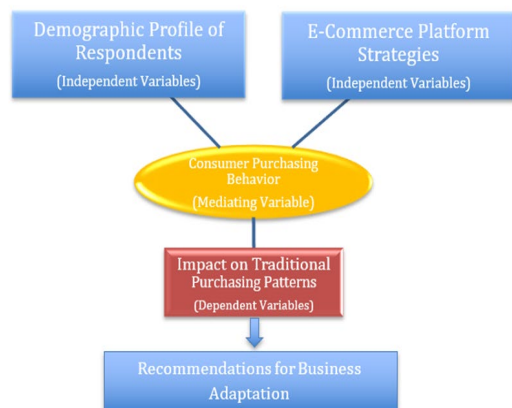

Fig. 1. Research paradigm

These independent variables influence the Consumer Purchasing Behavior in E-Commerce, which acts as the mediating variable. Consumer purchasing behavior encompasses factors such as price sensitivity, convenience, product quality and variety, discounts and promotions, reviews and ratings, mode of payment, and delivery time and cost. This mediating variable bridges the relationship between the demographic and strategic aspects of e-commerce and the outcomes reflected in consumers' shifting preferences and practices.

The dependent variable of the study is the Impact on Traditional Purchasing Patterns, which refers to changes in purchase shift, budget allocation, shopping habits, consumer loyalty, local competitiveness, and security and trust among consumers in Cabanatuan City. These outcomes represent how e-commerce adoption influences and transform conventional shopping behaviors within the local market environment.

The final component of the paradigm is the Recommendations for Business Adaptation, which represents the ultimate goal of the study. Based on the findings, the research aims to propose actionable insights and strategies to help local businesses and consumers effectively adapt to the evolving e-commerce landscape, ensuring competitiveness and sustainability.

This paradigm demonstrates how e-commerce and consumer factors interact to influence purchasing decisions and behavioral changes, providing a comprehensive basis for analyzing the effects of digital retail on traditional buying practices.

A. Statement of the Problem

This study aimed to address the following research objectives:

1. To answer the following Demographic Profile of Respondents
   1) Age;
   2) Gender;
   3) Monthly Income;
   4) Occupation;
   5) Frequency of Online Shopping; and
   6) Preferred E-commerce Platform
2. To determine the consumer purchasing behavior in e-commerce in terms of:
   1) Price Sensitivity;
   2) Convenience and Accessibility;
   3) Product Quality and Variety;
   4) Discounts and Promotions;
   5) Reviews and Ratings;
   6) Mode of Payment; and
   7) Delivery Time and Cost
3. To analyze the impact of e-commerce on traditional purchasing patterns in Cabanatuan City, Nueva Ecija in terms of:
   1) Purchase Shift;
   2) Budget Allocation;
   3) Shopping Habits;
   4) Consumer Loyalty;
   5) Local Competitiveness; and
   6) Security & Trust
4. To evaluate the strategies of e-commerce platforms in terms of:
   1) Pricing Strategy;
   2) Promotional Strategy;
   3) Product Strategy;
   4) Customer Service Management; and
   5) Return and Refund Policy
5. To recommend actions that will help businesses and consumers adapt to the e-commerce landscape in Cabanatuan City, Nueva Ecija.

B. Scope and Delimitations

This paper focused on investigating how e-commerce had influenced consumer buying behavior in the City of Cabanatuan, Nueva Ecija. It discussed the effect that the demographic profile of consumers, including age, sex, monthly income, occupation, frequency of online shopping, and their favorite online shopping platform, had on consumer purchasing behavior.

The study also examined consumer behavior depending on price sensitivity, convenience, accessibility, and product quality and variety, and the impact of e-commerce on the traditional purchasing behavior such as purchase shift, budgetary allocation, shopping patterns, consumer loyalty, local competitiveness, and also the issue of security and trust. Moreover, the analysis assessed the e-commerce practices, such as pricing, promotion, product management, customer service and refund/return policies.

The research was limited to the views of consumers who live in the City of Cabanatuan, Nueva Ecija, and who had experience of being online consumers as they have purchased using the major online shopping sites like Shopee, Lazada and TikTok Shop. It lacked the perspectives of e-commerce business owners, sellers, and the evaluation of the financial performance and internal operations of the e-commerce businesses.

Yet another limitation of the study was that it only dwells on the consumer behavior aspect of the local context, but not on the other aspect like the logistics or the supply chain management. The data collection and analysis were conducted in the year 2025-2026.

C. Significance of the Study

This study may be beneficial to the following stakeholders:

Consumers. The study is meaningful to consumers in that it allows gaining a more profound insight into their buying patterns and choices in online shopping platforms. The results can help consumers to be more attentive to the factors that determine their decisions to buy like price, convenience, and product quality so that they can make smarter and more informed purchases online.

Local Businesses. The research is relevant to the local business since it will enable them to know how e-commerce influences consumer loyalty, consumer buying behaviors, as well as local competitiveness. The outcomes can help them come up with measures to enhance their online status, better customer interactions, and how to adjust to the changing digital market.

E-commerce Platforms. This work is also important to the e-commerce sites as it reveals the success of their pricing, promotional and customer services policies. The implications of the study may be utilized in the effort to add value to user experience, enhance trust and security, and develop more customer-centered services that would meet the needs of local consumers.

Future Researchers. The study is important to research later scholars as it can be used as a reference to research concerning consumer behavior, digital marketing, and the development of e-commerce. It can also form a base on which comparative analyses or further investigation on the trends of online shopping in other localities can be conducted.

Policymakers and Government. The study is of importance to government agencies and policymakers as it gives them appropriate data that can possibly assist them to develop programs or regulations that will foster healthy competition, consumer protection, and the development of e-commerce in Cabanatuan City and beyond.

Definition of Terms:

The following terms are defined operationally:

E-Commerce. The purchase and sale of goods, and services using electronic media or the internet. It encompasses all types of online business dealings including stores, services and online products.

Purchasing Behavior-Consumers. Patterns and process of decision making that consumers use when choosing, buying, using or disposing goods and services based on a number of internal and external factors.

Price Sensitivity. The extent to which the buying behaviour of consumers is determined by price fluctuations. Consumers who are very price-sensitive tend to take discounts or cheaper variants.

Accessibility. Means the capacity of the consumer to access e-commerce sites at all times and at all place by utilizing

technology like smartphones, internet connections, and mobile applications.

Product Quality. The perceived quality/worthiness of a product bought over the Internet that may involve such qualities as durability, functionality, and the correctness of product descriptions.

Product Variety. The variety of the product range that consumers can obtain online due to the availability of e-commerce platforms and making them able to compare and choose the items that can best address their preferences and needs.

Demographic Profile. The statistical profiles of the interviewees that participated in the study, such as their age, sex, income per month, profession, and their shopping habits, as well as their choice of e-commerce site.

Price Strategy. It is a marketing strategy employed by online stores to capture the attention of customers via pricing policies like discounts, promotions, and competitive pricing schemes.

Promotional Strategy. Techniques employed by online platforms to promote consumer awareness and sales by advertising, influencer marketing, discounts, and online campaigns.

Product Strategy. The planning and control of the kinds of the products that are found in the e-commerce platforms such that the product mixings are of the right kind that consumer demand and requirements would prefer.

Customer Service Management. The practices employed by the e-commerce platforms to secure customer satisfaction pre-purchase, at purchase and post-purchase, such as responding to inquiries, complaints, and feedback.

Return and Refund Policy. The procedures that have been put in place that enable consumers to send back defective or unsatisfactory products and seek a refund, which raises the level of trust and confidence in transactions made online.

Purchase Shift. The shift in the preference of consumers toward shopping in the online store as opposed to the conventional retail stores as a result of comfort, cost or promotional factors.

Budget Allocation. The ratio of consumer income used to buy online versus other costs, revealing the impact of e-commerce on consumer spending patterns.

Shopping Habits. The consistency in the behaviors and preferences of the consumers in the process of undertaking buying practices both online and offline.

Consumer Loyalty. The tendencies of customers showing interest in a particular brand or platform because of the positive experiences they had in the past and repeatedly buy the same brand or platform.

Local Competitiveness. The capacity of local retailers in Cabanatuan City to maintain and attract clients as the online marketplace continues to dominate.

4. Research Methodology

This chapter presented the research design, locale, population and sampling techniques respondents, data-gathering procedures, and data analysis techniques that were used in the study, as well as the ethical considerations that were

taken into account.

A. Research Design

This study employed a quantitative descriptive research design. According to Cooper and Schindler (2016), descriptive research aimed to systematically describe the characteristics of a population, situation, or phenomenon, answering questions such as who, what, where, when, and how. This design was appropriate because the study sought to describe, analyze, and interpret the impact of e-commerce on consumer purchasing patterns in Cabanatuan City, Nueva Ecija.

The study focused on determining how demographic characteristics and e-commerce platform strategies influenced consumer purchasing behavior, which subsequently affected traditional purchasing patterns. Specifically, it examined the variables identified in the statement of the problem: (1) demographic profile of respondents in terms of age, gender, income, occupation, frequency of online shopping, and preferred e-commerce platform; (2) consumer purchasing behavior in terms of price sensitivity, convenience, product quality, discounts, reviews, payment method, and delivery time; and (3) the impact of e-commerce on traditional purchasing patterns, including purchase shift, budget allocation, shopping habits, consumer loyalty, local competitiveness, and trust.

This research design was chosen because it enabled the collection of quantifiable data that described the current behaviors, attitudes, and preferences of consumers who engaged in online shopping and how these behaviors influenced their traditional shopping habits. Through descriptive statistics, the study aimed to present an accurate portrayal of how e-commerce reshaped the purchasing landscape in Cabanatuan City.

Data were gathered using a structured survey questionnaire, which allowed for the systematic collection of measurable information from a sample of consumers. The questionnaire contained closed-ended questions designed to capture responses related to the study variables—covering demographic information, consumer behavior indicators, and perceptions toward e-commerce platforms. This approach ensured consistency, reliability, and comparability of data across respondents.

The respondents of the study were residents of Cabanatuan City who actively participated in online shopping through various e-commerce platforms. Their responses provided valuable insights into how frequently they shopped online, what motivated their purchases, what platforms they preferred, and how online shopping affected their spending habits and brand loyalty.

The quantitative descriptive method was ideal for this research because it did not manipulate variables but rather measured and described relationships among them as they naturally occurred. The analysis focused on identifying trends and patterns that revealed how e-commerce influenced consumer purchasing behavior and the overall shift from traditional to online retail practices.

B. Locale of the Study

The respondents of this study were consumers from Cabanatuan City who actively engaged in online shopping through various e-commerce platforms. A total of 384 respondents were selected to represent different demographic profiles, including age, gender, income, occupation, frequency of online shopping, and preferred e-commerce platform.

The selection of respondents was carefully conducted to ensure that the data reflected diverse consumer experiences and purchasing behaviors. The participants included individuals who regularly shopped online as well as those who continued to engage in traditional or in-store purchases. This diversity allowed the study to capture a comprehensive understanding of how consumers adapted to the e-commerce environment and how their purchasing habits were influenced by convenience, price, trust, and product variety.

By including respondents with different shopping preferences and levels of online activity, the study was able to analyze how demographic factors and e-commerce platform strategies affected consumer purchasing behavior and reshaped traditional buying patterns in Cabanatuan City.
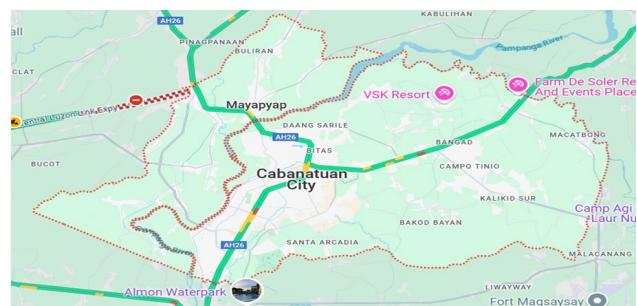

Fig. 2. Cabanatuan city map

C. Research Procedure

After the research proposal and survey questionnaire were approved by the adviser and members of the expert panel, the researcher initiated the data collection process. Before conducting the study, formal permission was secured from the selected barangays and establishments within Cabanatuan City where potential respondents were located. Each respondent was provided with a written consent form explaining the purpose of the study, assuring the confidentiality of their responses, and emphasizing that participation was voluntary. Respondents who agreed to participate signed the consent form as confirmation of their willingness to take part in the research.

This quantitative descriptive research involved gathering data to assess the impact of e-commerce on consumer purchasing patterns in Cabanatuan City. The main data collection tool was a structured survey questionnaire, which was distributed to 384 respondents who actively engaged in online shopping. The questionnaire was designed to obtain measurable information related to the variables of the study:

1. Demographic Profile of Respondents – age, gender, income, occupation, frequency of online shopping, and preferred e-commerce platform;
2. Consumer Purchasing Behavior in E-Commerce – price sensitivity, convenience and accessibility,

product quality and variety, discounts and promotions, reviews and ratings, mode of payment, and delivery time and cost; and

3. Impact on Traditional Purchasing Patterns – purchase shift, budget allocation, shopping habits, consumer loyalty, local competitiveness, and security and trust.

The questionnaires were personally administered and distributed through online platforms, ensuring accessibility and wider respondent reach. Respondents were given ample time to accomplish the survey, and the researcher collected the completed questionnaires after confirming the completeness and validity of responses.

Once all data were collected, the responses were organized, encoded, and analyzed using descriptive statistical tools such as frequency, percentage, and weighted mean to summarize consumer profiles and behavioral trends. These analyses helped determine how e-commerce platforms and strategies influenced consumer purchasing behavior and reshaped traditional shopping practices in Cabanatuan City. The findings served as the basis for developing recommendations that would help businesses and consumers adapt effectively to the growing e-commerce environment, ensuring sustainable and customer-centered market practices in the digital era.

D. Respondents

The selection of respondents for this study was a careful and deliberate process aimed at obtaining meaningful insights from individuals who were directly involved in online shopping activities within Cabanatuan City, Nueva Ecija. A total of 384 respondents were chosen to participate, based on their active engagement in e-commerce transactions and their experiences in purchasing products or services through various online platforms.

The respondents consisted of consumers with diverse demographic profiles such as age, gender, monthly income, occupation, frequency of online shopping, and preferred e-commerce platform. This diversity ensured that the study captured a comprehensive understanding of consumer preferences and behaviors in the local e-commerce environment. Participants included individuals who frequently made online purchases, as well as those who still engaged in traditional shopping, allowing the research to compare and analyze the effects of e-commerce on purchasing habits.

By selecting respondents with different online shopping frequencies and platform preferences, the study was able to present a holistic view of how factors such as convenience, price sensitivity, trust, product quality, and promotional strategies influenced consumer purchasing behavior. This selection process ensured the inclusion of multiple perspectives regarding how e-commerce platforms affected consumer loyalty, satisfaction, and overall purchasing patterns.

The respondents' insights provided valuable data that reflected the shifting dynamics of consumer behavior in Cabanatuan City, particularly the transition from traditional retail to digital commerce. These findings served as a basis for assessing how e-commerce transformed local purchasing patterns and for formulating recommendations to help

businesses and consumers adapt effectively to the evolving digital marketplace.

E. Sample and Sampling Design

The study employed a total population sampling technique, wherein all qualified individuals who met the inclusion criteria were given the opportunity to participate in the survey. The respondents included consumers who had prior experience purchasing products or services online, regardless of the frequency or platform used. This approach allowed the researcher to gather comprehensive and reliable data that reflected the behaviors, preferences, and attitudes of online shoppers in Cabanatuan City. The total population sampling method ensured that every eligible participant was represented, resulting in an accurate depiction of the e-commerce consumer landscape in the area.

The total population of the study consisted of consumers in Cabanatuan City, Nueva Ecija, who were actively engaged in online shopping through various e-commerce platforms such as Shopee, Lazada, and TikTok Shop. These consumers represented diverse demographic profiles in terms of age, gender, income, occupation, and frequency of online shopping. Because it was not feasible to survey the entire population, the researcher determined the appropriate sample size using the Raosoft Sample Size Calculator. Based on the computation, with a 95% confidence level, a 5% margin of error, and a 50% response distribution, the required sample size was 384 respondents. This computation ensured that the sample was statistically valid, accurate, and representative of the overall population of online consumers in Cabanatuan City.

By selecting 384 respondents according to the calculated sample size, the study was able to ensure that the data collected provided a reliable basis for analyzing how demographic characteristics and e-commerce platform strategies influenced consumer purchasing behavior and affected traditional shopping patterns in the city. This sampling design ensured the accuracy, inclusiveness, and reliability of the research findings, supporting the development of meaningful recommendations for businesses and consumers adapting to the evolving e-commerce environment.

F. Research Instrument

For this study, a structured survey questionnaire was used as the main research instrument to collect quantitative data necessary to achieve the specific objectives of the research. The questionnaire was designed to measure the respondents' demographic characteristics, purchasing behavior, perceptions, and attitudes toward e-commerce, as well as the impact of online shopping on their traditional buying habits. It was distributed both physically and digitally to ensure accessibility and participation among consumers in Cabanatuan City, Nueva Ecija.

The first part of the questionnaire focused on the demographic profile of the respondents. This section included questions related to age, gender, monthly income, occupation, frequency of online shopping, and preferred e-commerce platform. These variables helped establish the background

characteristics of consumers and how these may influence their online purchasing decisions.

The second part measured consumer purchasing behavior in e-commerce, which included indicators such as price sensitivity, convenience and accessibility, product quality and variety, discounts and promotions, reviews and ratings, mode of payment, and delivery time and cost. This section aimed to determine the factors that most significantly affected consumers' online shopping decisions and satisfaction levels.

The third part assessed the impact of e-commerce on traditional purchasing patterns. It included variables such as purchase shift, budget allocation, shopping habits, consumer loyalty, local competitiveness, and security and trust. This section aimed to analyze how the growing use of e-commerce platforms had influenced consumers' traditional shopping routines and their trust toward local physical stores.

The fourth part evaluated e-commerce platform strategies, focusing on pricing strategy, promotional strategy, product strategy, customer service management, and return and refund policy. This portion aimed to gather consumer feedback regarding the effectiveness and attractiveness of these strategies and how they shape purchasing preferences and satisfaction.

The survey was designed using a Likert scale to measure the degree of agreement or satisfaction with various statements related to e-commerce purchasing behavior and consumer perceptions. To ensure clarity and consistency, the survey was pre-tested with a small sample of respondents from Cabanatuan City, allowing for revisions based on their feedback. After refining the instrument, the finalized survey was distributed to the target respondents to collect comprehensive data on consumer behavior and perceptions related to e-commerce activities and purchasing patterns in Cabanatuan City, Nueva Ecija. The scale that was used for Parts II-IV of the instrument is shown in Table 1.

G. Validity and Reliability

To establish the validity and reliability of the research instrument, several steps were undertaken. The questionnaire underwent face and content validation by experts in psychology, marketing, e-commerce, and research

methodology. They evaluated the clarity, relevance, and alignment of each question with the objectives of the study. Their feedback helped refine the instrument to ensure that all items accurately represented the factors influencing consumer purchasing behavior in e-commerce.

Table 1
Scale responses in the questionnaire

Scale	Range	Verbal Description
4	3.25-4.00	Strongly Agree
3	2.50-3.24	Agree
2	1.75-2.49	Disagree
1	1.00-1.74	Strongly Disagree

For face validity, experts reviewed the wording and structure of each statement to determine whether the instrument effectively measured the intended variables such as price sensitivity, convenience, product quality, and customer satisfaction. Meanwhile, content validity ensured that the questionnaire comprehensively covered all aspects related to consumer purchasing patterns and the impact of e-commerce.

A pilot study was then conducted among a small sample of respondents from Cabanatuan City who were representative of the study's target population. The responses were analyzed using Cronbach's alpha to determine the internal consistency of the instrument. The analysis produced a Cronbach's alpha coefficient of 0.86, indicating a high level of reliability and internal consistency among the items. Minor revisions were made based on the pilot test results to further enhance clarity and accuracy.

This validation and reliability testing process confirmed that the questionnaire was both accurate and dependable for measuring the impact of e-commerce on consumer purchasing patterns in Cabanatuan City, Nueva Ecija. The computed reliability coefficient and its interpretation are presented in Table 2.

H. Data Analysis Techniques

The data collected through the survey questionnaire were carefully analyzed to generate meaningful insights that addressed the objectives of this study. Various statistical techniques were employed to interpret the responses from the

Table 2
Cronbach's alpha reliability coefficient and interpretation

Aspects	Cronbach's Alpha Coefficient	Interpretation
Price Sensitivity	0.849	Good
Convenience and Accessibility	0.869	Good
Product Quality and Variety	0.773	Good
Discounts and Promotions	0.860	Good
Reviews and Ratings	0.886	Good
Mode of Payment	0.899	Good
Delivery Time and Cost	0.951	Excellent
Purchase Shift	0.910	Excellent
Budget Allocation	0.831	Good
Shopping Habits	0.922	Excellent
Consumer Loyalty	0.898	Good
Local Competitiveness	0.841	Good
Security & Trust	0.936	Excellent
Pricing Strategy	0.803	Good
Promotional Strategy	0.783	Good
Product Strategy	0.850	Good
Customer Service Management	0.857	Good
Return and Refund Policy	0.864	Good
General Reliability	**0.866**	**Good**

participants, ensuring that the findings were accurate, reliable, and aligned with the study's goals.

1) Part I: Demographic Profile of Respondents

The first section of the questionnaire gathered data on the respondents' demographic profile, including age, gender, monthly income, occupation, frequency of online shopping, and preferred e-commerce platform. The gathered information was analyzed using frequency counts and percentages to present an overview of the respondents' characteristics. This descriptive analysis helped establish the background of consumers and provided context for interpreting their online purchasing behaviors.

2) Part II: Consumer Purchasing Behavior in E-Commerce

This section aimed to determine the purchasing behavior of consumers in e-commerce in terms of price sensitivity, convenience and accessibility, product quality and variety, discounts and promotions, reviews and ratings, mode of payment, and delivery time and cost. Descriptive statistics such as weighted mean and standard deviation were used to assess the level of agreement among respondents on each factor. These measures helped identify which aspects had the greatest influence on online purchasing decisions.

3) Part III: Impact of E-Commerce on Traditional Purchasing Patterns

To analyze the influence of e-commerce on traditional shopping, data on purchase shift, budget allocation, shopping habits, consumer loyalty, local competitiveness, and security and trust were examined. The results were analyzed using weighted mean and frequency distribution to determine how online shopping had altered traditional consumer behaviors in Cabanatuan City. The findings provided insight into how e-commerce reshaped purchasing preferences and loyalty toward local stores.

4) Part IV: Evaluation of E-Commerce Platform Strategies

The next part of the analysis evaluated e-commerce platform strategies, focusing on pricing, promotion, product strategy, customer service management, and return and refund policy. Descriptive statistical tools such as weighted mean were used to interpret consumer perceptions of these strategies. The analysis helped identify the most and least effective strategies that influence consumer engagement and satisfaction.

5) Part V: Recommendations for Adaptation to the E-Commerce Landscape

Finally, the results from all sections were synthesized to formulate recommendations for businesses and consumers to better adapt to the growing e-commerce environment in Cabanatuan City. These recommendations were based on observed patterns and summarized findings from the descriptive analyses. The conclusions aimed to guide local businesses in enhancing competitiveness, customer satisfaction, and trust in both online and traditional retail settings.

I. Scale for Data Interpretation

To interpret the responses and ensure consistency in the analysis, the following scales were used to categorize the mean scores obtained from the survey. Each scale was designed to correspond to specific objectives of the study, ensuring that the level of agreement and perception of the respondents could be accurately described.

The responses gathered from the survey questionnaire were interpreted using a set of scales designed to guide the analysis and provide a clear understanding of the participants' perceptions regarding various aspects of the study. These scales enabled a comprehensive assessment of factors such as consumer purchasing behavior, the impact of e-commerce on traditional purchasing patterns, and the effectiveness of e-commerce platform strategies.

The mean ranges on the scales were categorized into distinct verbal interpretations, each reflecting the participants' level of agreement or disagreement with the statements presented in the questionnaire. For each section of the survey, the scales focused on evaluating specific areas of concern based on the specific objectives of the study.

The first scale assessed consumer purchasing behavior in e-commerce in terms of price sensitivity, convenience and accessibility, product quality and variety, discounts and promotions, reviews and ratings, mode of payment, and

Table 3
Scale for data interpretation consumer purchasing behavior in E-Commerce

Scale	Mean Range	Verbal Interpretation (VI)	Verbal Descriptors
4	3.25 – 4.00	Strongly Agree	Consumers highly consider this factor when making online purchases
3	2.50 – 3.24	Agree	Consumers agree that this factor influences their purchasing behavior, though not overwhelmingly
2	1.76 – 2.49	Disagree	Consumers consider this factor as less important in their purchasing decisions
1	1.00 – 1.75	Strongly Disagree	Consumers strongly disagree that this factor affects their purchasing behavior

Table 4
Scale for data interpretation impact of E-Commerce on traditional purchasing patterns

Scale	Mean Range	Verbal Interpretation (VI)	Verbal Descriptors
4	3.25 – 4.00	Strongly Agree	E-commerce has a strong and noticeable impact on traditional purchasing pattern
3	2.50 – 3.24	Agree	E-commerce moderately affects traditional shopping behavior with observable changes
2	1.76 – 2.49	Disagree	E-commerce has limited influence on traditional shopping habits
1	1.00 – 1.75	Strongly Disagree	E-commerce has little to no impact on traditional purchasing patterns

Table 5
Scale for data interpretation E-Commerce platform strategies

Scale	Mean Range	Verbal Interpretation (VI)	Verbal Descriptors
4	3.25 – 4.00	Strongly Agree	The e-commerce platform strategy is perceived as highly effective and well-implemented
3	2.50 – 3.24	Agree	The strategy is effective but could benefit from further improvement
2	1.76 – 2.49	Disagree	The strategy has a moderate effect and requires enhancement
1	1.00 – 1.75	Strongly Disagree	The strategy is ineffective and has little influence on consumer satisfaction

delivery time and cost. This section aimed to determine the key factors that influence consumers' purchasing decisions when shopping through online platforms.

The second scale analyzed the impact of e-commerce on traditional purchasing patterns in Cabanatuan City, Nueva Ecija, focusing on purchase shift, budget allocation, shopping habits, consumer loyalty, local competitiveness, and security and trust. This section provided an understanding of how the growth of e-commerce has affected consumers' spending behavior and their relationship with traditional retail establishments.

The third scale evaluated the strategies of e-commerce platforms in terms of pricing strategy, promotional strategy, product strategy, customer service management, and return and refund policy. This part measured how effectively online retailers implement strategies that influence customer satisfaction, trust, and loyalty.

The analysis techniques ensured a comprehensive understanding of how various factors—such as consumer purchasing behavior, platform strategies, and market attitudes—affect online and traditional shopping dynamics within the city. By categorizing the responses using these scales, the study provided a structured and meaningful interpretation of how e-commerce influences consumer behavior and business performance in the local market. This enabled the researcher to draw evidence-based conclusions and propose practical recommendations for enhancing business competitiveness in both online and offline settings.

Aside from the said scales, the researcher used the following statistical tools to classify, tabulate, and analyze the data in accordance with the objectives of the study:

1) Demographic Profile of Respondents

To describe the demographic characteristics of the respondents—including age, gender, monthly income, occupation, frequency of online shopping, and preferred e-commerce platform—frequencies and percentages were used. This helped to summarize and categorize the data effectively, providing an overview of the sample population.

2) To Determine Consumer Purchasing Behavior in E-Commerce

Descriptive statistical tools, including frequency, percentage, and weighted mean were utilized to analyze responses related to price sensitivity, convenience, product quality, discounts, and online trust. This helped identify key factors that significantly influence consumer purchasing decisions in e-commerce.

3) To Analyze the Impact of E-Commerce on Traditional Purchasing Patterns

Descriptive statistical tools, including frequency, percentage, and weighted mean, were applied to determine the extent to which e-commerce influences consumers' shopping habits, budget allocation, and brand loyalty. These results provided insights into how online shopping has reshaped traditional purchasing behavior in Cabanatuan City.

4) To Evaluate E-Commerce Platform Strategies

The responses related to pricing, promotional, product, customer service, and return/refund strategies were analyzed using weighted mean and frequency distribution. This helped assess the perceived effectiveness of e-commerce platform strategies from the perspective of consumers.

5) To Recommend Strategic Actions for Businesses and Consumers

Based on the analyzed data, a descriptive interpretation was used to develop actionable recommendations that could help businesses adapt to the evolving e-commerce landscape. These recommendations focused on improving marketing effectiveness, enhancing consumer trust, and strengthening customer relationships in the digital marketplace.

J. Ethical Considerations

This study observed ethical integrity in its conduct. The ethical principles followed included the following:

Informed Consent. All the participants will be well informed concerning the purpose, objectives and procedures of the study. Their approval will be willingly obtained before joining.

Anonymity and Confidentiality. The answers will be kept confidential and the personal information will be locked in safe place to protect the privacy of the participants. The reporting of results will be only in aggregated form.

Voluntary Participation. The participation will be voluntary. The respondents will be able to leave the study at any point without any repercussions or binds.

Data Integrity. The data will be recorded and analyzed correctly without adding or manipulating it to provide honest and transparent reporting of results.

5. Presentation, Analysis, and Interpretation of Data

This section presents the findings obtained from the primary instrument used in the examination on e-commerce on consumer purchasing patterns in Cabanatuan City, Nueva Ecija. The responses were organized, quantified, and interpreted using the applicable statistical tools. The presentation observed the sequence of the specific problems formulated in this study.

A. Demographic Profile of the Respondents

The distribution and demographic profile of the respondents was described in terms of sex, age, occupation, monthly income, frequency of online shopping, and preferred e-commerce platform.

Table 6 presents the demographic characteristics of the 384 respondents in terms of sex, age, occupation, monthly income, frequency of online shopping, and preferred e-commerce platform.

Sex. The data show that 261 respondents (68%) are male, while 123 (32%) are female. This indicates that the majority of the respondents engaging in e-commerce are male.

According to Kaur and Kaur (2020), gender plays a significant role in online shopping behavior, with men often showing more interest in technology-driven purchasing due to convenience and accessibility. Similarly, in another study, male consumers were found to have a more positive view of technology usage and online purchase processes when compared to female consumers and that male consumers are more inclined to shop online for electronic and fashion-related

Table 6
Distribution of respondents according to their demographic profile

Variables	Frequency (n=384)	Percentage (100%)
Sex		
Male	261	68%
Female	123	32%
Total	384	100%
Age		
18-24years old	278	72.4%
25-34 years old	60	15.6%
35-44 years old	28	7.3%
45-54years old	15	3.9%
50 and above	3	0.8%
Total	384	100%
Occupation		
Student	277	72.1%
Employed	82	21.4%
Self-Employed	13	3.4%
Business Owner	3	0.8%
Unemployed	9	2.3%
Total	384	100%
Monthly Income		
Below Php 10,000	274	71.4%
Php 10,001 - 20,000	32	8.3%
Php 20,001 - 30,000	21	5.5%
Php 30,000 Above	57	14.8%
Total	384	100%
Frequency of Online Shopping		
Daily	16	4.2%
Weekly	84	21.9%
Twice a Month	114	29.7%
Monthly	40	10.4%
Occasionally (less than once a month)	130	33.9%
Total	384	100%
Preferred E-commerce Platform	Frequency (n=multiple response)	
Lazada	384	100%
TikTok Shop	384	100%
Shein	131	34.11%
Zalora	29	7.55%
Facebook Marketplace	31	8.07%
Lazada	170	44.27%
Others:	200	52.08%
Total	384	Percentage

items, while females tend to prefer in-store shopping experiences (Kanwal et al., 2022).

Age. The majority of the respondents belong to the 18–24 years old group, comprising 72.4% of the total sample. This is followed by 25–34 years old (15.6%), 35–44 years old (7.3%), 45–54 years old (3.9%), and 50 years and above (0.8%).

This implies that most e-commerce users are young adults, who are typically more exposed to digital technologies and online platforms. This finding aligns with Al-Okaily, et. al., (2020), who emphasized that the younger generation, particularly millennials and Gen Z, exhibit a higher level of digital literacy and are more comfortable with cashless transactions. Furthermore, Statista (2023) reported that the 18–24 age group forms the largest segment of online shoppers globally, being more adaptive to online retail innovations and promotional offers.

Occupation. In terms of occupation, 277 respondents (72.1%) are students, followed by employed individuals (21.4%), self-employed (3.4%), business owners (0.8%), and unemployed (2.3%).

This distribution suggests that a large portion of online shoppers are students who utilize e-commerce platforms for convenience, affordability, and accessibility. According to

Bashir et al. (2022), students represent a growing segment of online consumers, often motivated by ease of product comparison, discounts, and peer influence through social media.

Monthly Income. As reflected in the data, the majority of respondents (71.4%) earn below Php 10,000, followed by those earning Php 30,000 and above (14.8%), Php 10,001–20,000 (8.3%), and Php 20,001–30,000 (5.5%).

The results imply that most respondents have relatively low income, which corresponds with the high number of students in the sample. Despite limited income, e-commerce remains appealing because of its affordability and various payment options. This agrees with Eunike et al. (2025), who found that lower-income consumers are attracted to online shopping due to frequent discounts, flash sales, and low-cost delivery options.

Frequency of Online Shopping. The data reveal that 33.9% of respondents shop occasionally (less than once a month), 29.7% shop twice a month, 21.9% weekly, 10.4% monthly, and 4.2% daily.

This indicates that most respondents engage in online shopping occasionally or semi-regularly, reflecting a pattern of selective or need-based purchasing. According to LogiCommerce (nd), frequency of online shopping is

influenced by factors such as perceived usefulness, trust, and prior experience. Occasional buyers may be testing online services or making non-routine purchases based on necessity or promotion.

Preferred E-commerce Platform. Regarding preferred platforms, the respondents identified Lazada (100%) and TikTok Shop (100%) as their top platforms, followed by Shein (34.11%), Zalora (7.55%), Facebook Marketplace (8.07%), and others (52.08%).

This shows that Lazada and TikTok Shop dominate the online shopping landscape among respondents, mainly because of their accessibility, marketing strategies, and wide range of product offerings. This is supported by Statista (2024), which reported that Lazada and TikTok Shop are among the leading e-commerce platforms in the Philippines due to aggressive marketing, influencer collaborations, and strong logistics systems.

B. The Consumer Purchasing Behavior in E-Commerce

Table 7 presents the consumer purchasing behavior in e-commerce with regard to price sensitivity. The highest-rated indicator is "I compare prices from different online sellers before purchasing" with a mean of 3.62, verbally interpreted as Strongly Agree. This indicates that consumers actively engage in price comparison before buying, demonstrating rational decision-making and an effort to maximize value for money. The second highest indicator, "I only buy online when the price is lower than in physical stores" (Mean = 3.60), also gained a Strongly Agree interpretation. This suggests that consumers perceive e-commerce as a cost-saving alternative to traditional retail. The statements "I wait for online sales or price drops before buying" and "Price greatly influences my decision to purchase online" both received a Strongly Agree rating (Mean = 3.44 each). This reflects consumers' strategic waiting behavior to maximize savings, especially during major sales events like 11.11 or 12.12 campaigns. Nguyen et al. (2023) found that Filipino online shoppers display a high level of price sensitivity, timing their purchases based on promotional events and discount offers. On the other hand, the lowest-rated statement, "I prioritize affordable prices over other product features when shopping online" (Mean = 3.12, Agree), implies

that while price remains a dominant factor, consumers are also mindful of product quality, reviews, and seller credibility. This supports Lee and Park (2020), who observed that modern e-commerce buyers balance price with product reliability, delivery convenience, and after-sales service.

The grand mean of 3.44, interpreted as Strongly Agree, indicates that respondents overall exhibit high price sensitivity in their online purchasing behavior. This means that price remains a major determinant in shaping consumer choices in e-commerce, reflecting the rational and value-driven nature of digital shoppers today.

These findings are consistent with Izhar, et al. (2024), who concluded that consumers' perceptions of price fairness, discounts, and promotional strategies have a significant impact on their online purchase intentions.

Table 8 presents the consumer purchasing behavior in e-commerce regarding convenience and accessibility. The data show that the highest-rated indicator is "I can shop online anytime, which makes it more convenient" with a mean of 3.55, interpreted as Strongly Agree. This suggests that the ability to purchase at any time of day is a major driver for consumers to prefer e-commerce over traditional retail. Similarly, "I prefer online shopping because it saves me time and effort" ranks second with a mean of 3.53, also interpreted as Strongly Agree. This indicates that consumers appreciate the efficiency of online shopping, which eliminates travel and waiting times. The indicator "Online shopping is more accessible to me compared to visiting stores" obtained a mean of 3.44, and "I find it easier to browse products online than in physical stores" achieved 3.42, both Strongly Agree.

These results suggest that accessibility and product visibility are key benefits of e-commerce platforms. The lowest-rated indicator, though still Strongly Agree, is "Convenience is the main reason I choose e-commerce platforms" (Mean = 3.40). This implies that while convenience is an essential factor, consumers may also consider other motivations such as price discounts, variety, and delivery services.

The grand mean of 3.47 confirms that consumers highly value convenience and accessibility in their e-commerce experience. These findings reveal that online shopping's

Table 7
The consumer purchasing behavior in e-commerce regarding price sensitivity

Indicators	Mean	Verbal Description
I compare prices from different online sellers before purchasing.	3.62	Strongly Agree
I only buy online when the price is lower than in physical stores.	3.60	Strongly Agree
I wait for online sales or price drops before buying.	3.44	Strongly Agree
I prioritize affordable prices over other product features when shopping online.	3.12	Agree
Price greatly influences my decision to purchase online.	3.44	Strongly Agree
Grand Mean	**3.44**	**Strongly Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

Table 8
The consumer purchasing behavior in e-commerce regarding convenience and accessibility

Indicators	Mean	Verbal Description
I prefer online shopping because it saves me time and effort.	3.53	Strongly Agree
I can shop online anytime, which makes it more convenient.	3.55	Strongly Agree
I find it easier to browse products online than in physical stores.	3.42	Strongly Agree
Online shopping is more accessible to me compared to visiting stores.	3.44	Strongly Agree
Convenience is the main reason I choose e-commerce platforms.	3.40	Strongly Agree
Grand Mean	**3.47**	**Strongly Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

flexibility, time efficiency, and ease of access significantly shape consumer purchasing patterns. Cheng et al. (2022) further supported this, explaining that the "anytime-anywhere" accessibility of e-commerce platforms is a crucial determinant of customer loyalty and repeat purchasing behavior.

C. The Consumer Purchasing Behavior in E-Commerce

Table 9 presents the consumer purchasing behavior in e-commerce in terms of product quality and variety. The highest-rated indicator, "E-commerce platforms offer a wide variety of products" (Mean = 3.50, Strongly Agree), suggests that consumers are attracted to online stores due to the extensive range of product choices available. The wide selection enables shoppers to easily compare brands, prices, and specifications before making a purchase. The statement "I value product quality as much as price when buying online" (Mean = 3.48, Strongly Agree) indicates that respondents consider both affordability and product quality as equally important in making online purchases. The indicator "I often find unique products online that are not available locally" (Mean = 3.46, Strongly Agree) shows that e-commerce allows consumers to access global products and niche items unavailable in their local markets.

Meanwhile, "I am more likely to shop online because of the variety of options available" received a mean of 3.34, also Strongly Agree, reinforcing that product diversity influences consumers' purchase intentions. The accessibility of numerous alternatives enables buyers to customize their preferences and find products that best match their needs. The lowest-rated indicator, "I trust that the quality of products online meets my expectations" (Mean = 3.11, Agree), indicates that while consumers value quality, a level of uncertainty still exists about online product reliability. This concern reflects the "trust gap" that persists between online sellers and buyers, often due to misleading photos or inconsistent product descriptions.

The grand mean of 3.39, interpreted as Strongly Agree, suggests that product quality and variety play a vital role in shaping online shopping behavior. Consumers are drawn to e-commerce for its extensive product offerings and global accessibility but still seek assurance regarding product authenticity and reliability. As Han and Kim (2022) concluded, ensuring consistent product quality is key to long-term online customer loyalty.

Table 10 presents the respondents' perception of how discounts and promotions influence their online purchasing behavior. The results show a grand mean of 3.48, which is verbally described as "Strongly Agree." This implies that consumers are highly influenced by discounts, free shipping, and promotional offers when shopping online.

Among the indicators, the statement "I buy more products online when there are discounts" obtained the highest mean of 3.52, indicating that price reductions are a strong motivating factor for increased purchases. Similarly, statements such as "I take advantage of flash sales or special promotions" (3.51) and "I often wait for sale events before buying online" (3.48) suggest that consumers tend to plan their purchases strategically around promotional events.

Although the statement "Free shipping vouchers encourage me to shop online" received a slightly lower mean of 3.48 (Agree), it still reflects a positive perception—showing that shipping incentives remain an important consideration in purchase decisions. The findings highlight that discounts and promotional strategies are effective tools for attracting and retaining online shoppers, as consumers tend to be more

Table 9
The consumer purchasing behavior in e-commerce regarding product quality and variety

Indicators	Mean	Verbal Description
E-commerce platforms offer a wide variety of products.	3.50	Strongly Agree
I trust that the quality of products online meets my expectations.	3.11	Agree
I am more likely to shop online because of the variety of options available.	3.34	Strongly Agree
I often find unique products online that are not available locally.	3.46	Strongly Agree
I value product quality as much as price when buying online.	3.48	Strongly Agree
Grand Mean	**3.39**	**Strongly Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

Table 10
The consumer purchasing behavior in e-commerce regarding discounts and promotions

Indicators	Mean	Verbal Description
I buy more products online when there are discounts.	3.52	Strongly Agree
Free shipping vouchers encourage me to shop online.	3.48	Agree
I take advantage of flash sales or special promotions.	3.51	Strongly Agree
Discounts and promos strongly influence my purchase decisions.	3.42	Strongly Agree
I often wait for sale events before buying online	3.48	Strongly Agree
Grand Mean	**3.48**	**Strongly Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

Table 11
The consumer purchasing behavior in e-commerce regarding reviews and ratings

Indicators	Mean	Verbal Description
I check customer reviews before making a purchase.	3.73	Strongly Agree
I trust products with higher ratings from other buyers.	3.64	Strongly Agree
Positive reviews encourage me to buy online.	3.57	Strongly Agree
I avoid products with negative feedback regardless of price.	3.63	Strongly Agree
Peer reviews and ratings affect my final purchase decision.	3.56	Strongly Agree
Grand Mean	**3.63**	**Strongly Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

responsive and engaged during sales events. This study aligns with the research conducted by (Razali, 2022) regarding the effect of discount promotions on purchasing decisions, it can be concluded that there is an influence of free shipping on purchasing decisions.

Table 11 presents the respondent's purchasing behavior in e-commerce regarding reviews and ratings. Based on the results in "I check customer reviews before making a purchase" with a mean = 3.73, a relatively high mean implies that respondents very frequently look at reviews prior to purchase. This suggests that review-seeking behavior is common among your sample. It means that before committing to buy online, consumers perform some level of information search via peer/customer reviews, which is consistent with the idea of reducing uncertainty or perceived risk when purchasing online. The second indicator which is "I trust products with higher ratings from other buyers" has 3.64 mean. This indicates that the star-rating or numerical rating system (e.g., "4.8 stars", "5 stars") functions as a heuristic or quality signal. High ratings from other buyers build trust and reduce perceived risk. Thus, in the context of e-commerce, ratings serve as an efficient cue for decision-making in place of being able to physically inspect the product.

The third indicator which is "Positive reviews encourage me to buy online" (Mean = 3.57), this finding shows that not only do consumers check reviews and trust ratings, but positive reviews actively encourage purchase. It has a motivational or prompting effect. In other words, favorable feedback increases purchase intention. While the indicator "I avoid products with negative feedback regardless of price" (Mean = 3.63). This is an important insight: negative feedback appears to deter purchase even if the price is favorable. This underscores the strong deterrent effect of negative reviews in the e-commerce environment. It means consumers are price-sensitive but also quality/feedback sensitive: a low price may not override concerns raised by bad reviews. The fifth indicator, "Peer reviews and ratings affect my final purchase decision" (Mean = 3.56). Although slightly lower than the highest means, this still falls in the "Strongly Agree" range, meaning respondents acknowledge that at the final decision-making stage (the

"checkout" decision) reviews and ratings have real influence. Thus, reviews/ratings are not just peripheral; they influence the actual decision to buy.

Consumers strongly agree (Grand Mean = 3.63) that reviews and ratings greatly influence their purchasing behavior in e-commerce. Ahn and Lee (2024) found that online reviews significantly affect consumer purchase intentions, serving as a primary information source that compensates for the lack of physical product inspection. Reviews with higher credibility and detailed content increase trust and willingness to purchase.

Table 12 presents the respondents' perception of consumer purchasing behavior in e-commerce regarding mode of payment, which obtained a grand mean of 3.26, verbally described as Strongly Agree. This implies that payment methods significantly influence consumers' purchasing decisions when shopping online. The results show that consumers prefer platforms offering multiple payment options (mean = 3.50) and often use cash on delivery when shopping online (mean = 3.40). This suggests that convenience and flexibility in payment methods are essential factors that enhance consumer trust and willingness to transact online.

Although the use of digital wallets and online banking is becoming more common, the mean of 2.89 (Agree) implies that some consumers still feel hesitant or less secure when using digital payment systems. This indicates that while digital payment adoption is growing, traditional payment methods such as cash on delivery remain a preferred and trusted option, especially among consumers who are cautious about online security and fraud. Furthermore, respondents strongly agreed that the availability of their preferred payment method influences their purchase decisions (mean = 3.32), showing that consumers are more likely to complete a transaction if their favored payment option is offered. On the other hand, the indicator "I avoid shopping from sellers with limited payment options" received a mean of 3.19 (Agree), highlighting that while limited payment flexibility may not completely deter consumers, it can still negatively affect their purchase intent. Rahman et al. (2021) found that the availability of diverse and secure payment methods significantly affects online consumers' purchasing decisions, with flexibility enhancing

Table 12
The consumer purchasing behavior in e-commerce regarding mode of payment

Indicators	Mean	Verbal Description
I prefer e-commerce platforms that offer multiple payment options.	3.50	Strongly Agree
I often use cash on delivery when shopping online.	3.40	Strongly Agree
I feel more secure using digital wallets or online banking.	2.89	Agree
The availability of my preferred payment method influences my purchase.	3.32	Strongly Agree
I avoid shopping from sellers with limited payment options.	3.19	Agree
Grand Mean	**3.26**	**Strongly Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

Table 13
The consumer purchasing behavior in e-commerce regarding delivery time and cost

Indicators	Mean	Verbal Description
I choose sellers who offer faster delivery.	3.43	Strongly Agree
High shipping fees discourage me from purchasing online.	3.50	Strongly Agree
I am willing to wait longer if shipping is free.	3.17	Agree
Delivery speed affects my satisfaction with online shopping.	3.35	Strongly Agree
I prefer shopping platforms with reliable delivery services.	3.59	Strongly Agree
Grand Mean	**3.41**	**Strongly Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

trust and satisfaction. Consumers tend to prefer e-commerce platforms that provide various modes of payment such as credit cards, mobile wallets, and COD to minimize perceived risk.

Table 13 results reveal that respondents strongly agree that delivery time and cost significantly influence their purchasing behavior in e-commerce, as reflected by the grand mean of 3.41. Among the indicators, the highest mean score (3.50) corresponds to the statement *"High shipping fees discourage me from purchasing online,"* emphasizing that cost plays a major role in consumers' decision-making. Similarly, consumers also strongly agree that they choose sellers offering faster delivery (3.43) and prefer shopping platforms with reliable delivery services (3.59), highlighting how speed and dependability of delivery create customer satisfaction and loyalty. Respondents also strongly agree that delivery speed affects their satisfaction with online shopping (mean = 3.35), showing that prompt delivery not only enhances convenience but also improves overall customer experience. On the other hand, the indicator *"I am willing to wait longer if shipping is free"* received a mean of 3.17 (Agree), suggesting that while consumers appreciate free shipping, they still value timeliness and efficiency. This indicates a balanced trade-off between delivery cost and speed—customers are willing to compromise slightly on waiting time if it helps them save money.

Verma (2025) found that delivery speed and reliability strongly influence customer satisfaction in e-commerce. Their study highlighted that late deliveries often lead to negative reviews and reduced repeat purchase intentions, reinforcing the importance of logistics efficiency.

Table 14
The consumer purchasing behavior in e-commerce

Dimensions	Mean	Verbal Description
Price Sensitivity	3.44	Strongly Agree
Convenience and Accessibility	3.47	Strongly Agree
Product Quality and Variety	3.39	Strongly Agree
Discounts and Promotions	3.48	Strongly Agree
Reviews and Ratings	3.63	Strongly Agree
Mode of Payment	3.26	Strongly Agree
Delivery Time and Cost	3.41	Strongly Agree
Grand Mean	**3.44**	**Strongly Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

Table 14 presents the analysis of consumer purchasing behavior in e-commerce across seven major dimensions. The overall grand mean of 3.44, verbally described as "Strongly Agree," shows that all factors have a strong influence on consumers' decisions to purchase online. This means that respondents generally believe that these aspects—price, convenience, product quality, discounts, reviews, payment modes, and delivery—play important roles in shaping their buying patterns in the digital marketplace.

In terms of price sensitivity, the mean score of 3.44 indicates that consumers strongly agree that product price greatly affects their purchasing behavior. Online shoppers are likely to buy when they find affordable prices or good value for their money. This finding supports Ahmed et al. (2022), who emphasized that price comparison and transparency encourage consumer confidence in online shopping. Similarly, convenience and

accessibility recorded a mean of 3.47, showing that the ease of shopping anytime and anywhere is a major motivation for online buyers.

For product quality and variety, the mean of 3.39 suggests that customers highly value the availability of diverse and reliable products when making online purchases. Shoppers prefer online stores that display detailed product descriptions and offer multiple options to choose from. This aligns with Bhowmick & Seetharaman (2023), who found that product quality and variety significantly affect satisfaction and repeat buying behavior. Meanwhile, discounts and promotions obtained a mean of 3.48, indicating that promotional offers strongly encourage consumers to make purchases. According to Keenan (2024), discounts not only increase sales but also boost customer loyalty and impulsive buying in online shopping environments.

Among all indicators, reviews and ratings received the highest mean of 3.63, showing that they are the most influential factors affecting consumer behavior. Buyers often rely on feedback and star ratings to judge product reliability and seller credibility before purchasing. This agrees with the findings of Fauzan et al. (2024), who highlighted that online reviews are powerful trust-building tools that directly shape buying decisions. On the other hand, mode of payment scored a mean of 3.26, meaning that consumers still consider secure and convenient payment methods as important in their online transactions.

Chen et al. (2022) pointed out that flexible and safe payment systems, such as e-wallets and cash-on-delivery, enhance user trust and reduce transaction failures. Lastly, delivery time and cost with a mean of 3.41 indicate that fast and affordable delivery is a strong motivator for consumers. Ibrahim (2025) supported this by stating that efficient logistics and reasonable shipping fees contribute to higher customer satisfaction and loyalty.

Overall, the findings reveal that all seven dimensions have a strong impact on consumer purchasing patterns in e-commerce. The results suggest that trust (through reviews and ratings), convenience, and value (through price and promotions) are the main drivers of online buying behavior.

D. The Impact of E-Commerce on Traditional Purchasing Patterns in Nueva Ecija

Table 15 shows the impact of e-commerce on traditional purchasing patterns in Nueva Ecija in terms of purchase shift. The grand mean of 3.29, interpreted as Strongly Agree, shows that many consumers now prefer online shopping. Respondents agree that they buy more products online instead of going to physical stores 3.19 and that e-commerce has reduced their visits to malls or local shops 3.29. They also strongly agree that they are more likely to buy online than offline 3.22 and that online shopping has changed the way they buy most products 3.32. The highest score is choosing online platforms first before physical stores 3.41, showing how online shopping now influences most buying decisions.

These results are similar to the studies of Anne (2024) and Bulacan (2022), who explained that convenience, accessibility,

Table 15
The impact of e-commerce on traditional purchasing patterns in Nueva Ecija regarding purchase shift

Indicators	Mean	Verbal Description
I prefer buying products online instead of visiting physical stores.	319	Agree
E-commerce has reduced the number of times I shop in malls or local shops.	3.29	Agree
I am more likely to buy online than offline.	3.22	Strongly Agree
Online shopping has changed the way I purchase most products.	3.32	Strongly Agree
I choose online platforms first before considering physical stores.	3.41	Strongly Agree
Grand Mean	**3.29**	**Strongly Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

Table 16
The impact of e-commerce on traditional purchasing patterns in Nueva Ecija regarding budget allocation

Indicators	Mean	Verbal Description
A larger portion of my budget is now spent on online shopping.	3.82	Strongly Agree
I save money for e-commerce purchases every month.	3.00	Agree
I spend more on online platforms than in physical stores.	3.10	Agree
I allocate more budget to online shopping during sales and promotions.	3.04	Agree
My monthly expenses include a fixed amount for online purchases.	2.79	Agree
Grand Mean	**2.95**	**Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

Table 17
The impact of e-commerce on traditional purchasing patterns in Nueva Ecija regarding shopping habits

Indicators	Mean	Verbal Description
I shop online more frequently than before.	3.04	Agree
Online shopping has become part of my regular routine.	2.77	Agree
I spend more time browsing online shops than visiting physical stores.	3.12	Agree
I often rely on e-commerce platforms to buy everyday items.	2.84	Agree
I regularly check online shops for new products or deals.	3.08	Agree
Grand Mean	**2.97**	**Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

Table 18
The impact of e-commerce on traditional purchasing patterns in Nueva Ecija regarding consumer loyalty

Indicators	Mean	Verbal Description
I often buy from the same online store or platform.	3.24	Agree
I stick to brands I trust when shopping online.	3.39	Strongly Agree
I return to sellers who provide good service.	3.37	Strongly Agree
Loyalty programs or rewards influence my repeat purchases online.	3.27	Strongly Agree
I prefer to shop on familiar platforms rather than trying new ones.	3.33	Strongly Agree
Grand Mean	**3.32**	**Strongly Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

and digital payment options are the main reasons people prefer shopping online. Overall, the findings show that e-commerce has greatly changed how people in Nueva Ecija shop, and businesses should improve their online services to keep up with customer needs.

Table 16 shows the impact of e-commerce on traditional purchasing patterns in Nueva Ecija in terms of budget allocation. The grand mean is 2.95, which means Agree. This shows that many people now spend more of their budget on online shopping. Respondents strongly agreed that a big part of their budget now goes to online shopping 3.82. They also agreed that they save money every month for online purchases 3.00 and that they spend more money online than in physical stores 3.10. People also said that they add more budget during online sales and promos 3.04. Lastly, they agreed that they have a fixed amount each month for online buying 2.79.

These results support the studies of Lopez (2022) and Santos (2023), who said that people now plan their money for online shopping because it is easy, convenient, and has many promos and digital payments. Overall, the findings show that online shopping affects how people plan and use their money. Because of this, businesses should improve their online services and offer more promos to match customer spending habits.

Table 17 shows the impact of e-commerce on traditional purchasing patterns in Nueva Ecija in terms of shopping habits. The grand mean is 2.97, which means *Agree*. This means that many people now use online shopping more often in their daily lives.

Respondents agreed that they shop online more frequently than before 3.04. They also agreed that online shopping is now part of their usual routine 2.77. People said they spend more time browsing online shops than going to physical stores 3.12. They also agreed that they use e-commerce platforms to buy everyday items 2.84. Lastly, they said they regularly check online shops for new products or deals 3.08.

These results support the studies of Torres 2021 and Sanchez 2022, who explained that people shop online more often because it is easy, fast, and offers many choices. It also supports Reyes 2023, who said that checking online stores has become a common habit for many shoppers. Overall, the findings show that online shopping has changed the daily shopping habits of people in Nueva Ecija. Because of this, businesses should continue improving their online platforms to match customer behavior.

Table 18 shows the impact of e-commerce on traditional purchasing patterns in Nueva Ecija in terms of consumer

Table 19
The impact of e-commerce on traditional purchasing patterns in Nueva Ecija regarding local competitiveness

Indicators	Mean	Verbal Description
E-commerce offers better prices compared to local shops.	3.30	Strongly Agree
Online stores provide more product choices than local retailers.	3.36	Strongly Agree
I think local shops should also sell online to remain competitive.	3.32	Strongly Agree
E-commerce platforms are more convenient than physical stores.	3.32	Strongly Agree
Promotions and discounts from online platforms are more attractive than those from local shops.	3.34	Strongly Agree
Grand Mean	**3.35**	**Strongly Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

Table 20
The impact of e-commerce on traditional purchasing patterns in Nueva Ecija regarding security & trust

Indicators	Mean	Verbal Description
I feel safe when making online purchases.	3.09	Agree
I trust that online platforms protect my personal and financial information.	3.10	Agree
I only buy from sellers with secure payment systems.	3.42	Strongly Agree
Concerns about scams or fraud affect my online shopping decisions.	3.48	Strongly Agree
Reliable security features make me more confident in shopping online.	3.48	Strongly Agree
Grand Mean	**3.31**	***Strongly Agree***

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

loyalty. The grand mean is 3.32, which means Strongly Agree. This shows that many people stay loyal to the online stores, brands, and platforms they trust.

Respondents agreed that they often buy from the same online store or platform 3.24. They strongly agreed that they stick to brands they trust when shopping online 3.39 and that they go back to sellers who give good service 3.37. They also strongly agreed that loyalty programs or rewards make them buy again 3.27. Lastly, people strongly agreed that they prefer familiar online platforms instead of trying new ones 3.33.

These results support Lopez 2022, who said that good service and trusted brands help keep online customers loyal. It also supports Cruz 2023, who explained that rewards and smooth online shopping experiences encourage people to buy again from the same stores. Overall, the findings show that online shoppers in Nueva Ecija tend to stay loyal to the platforms, brands, and sellers they trust. Because of this, businesses should offer good service and reward programs to keep their customers coming back.

Table 19 shows the impact of e-commerce on traditional purchasing patterns in Nueva Ecija in terms of local competitiveness. The grand mean is 3.35, which means Strongly Agree. This shows that many people believe e-commerce is more competitive than local shops.

Respondents strongly agreed that e-commerce offers better prices compared to local shops 3.30. They also strongly agreed that online stores provide more product choices than local retailers 3.36. They agreed that local shops should sell online to stay competitive 3.32. Respondents strongly agreed that e-commerce platforms are more convenient than physical stores 3.32. Lastly, they strongly agreed that promotions and discounts from online platforms are more attractive than those from local shops 3.34.

These results support Laudon and Traver (2021), who said that online stores attract customers by offering better prices and more variety. It also supports Verhoef et al., (2007) who explained that convenience and attractive promotions are major reasons people shop online. Overall, the findings show that people in Nueva Ecija see e-commerce as a strong competitor to local shops. Businesses should consider selling online and

offering good deals to keep up with customer preferences.

Table 20 shows the impact of e-commerce on traditional purchasing patterns in Nueva Ecija in terms of security and trust. The grand mean is 3.31, which means Strongly Agree. This means most people feel safe and trust online shopping. Respondents agreed that they feel safe when making online purchases 3.09 and trust that online platforms protect their personal and financial information 3.10. They strongly agreed that they only buy from sellers with secure payment systems 3.42. Many also strongly agreed that concerns about scams or fraud affect their online shopping decisions 3.48. Lastly, respondents strongly agreed that reliable security features make them more confident to shop online 3.48.

These results support Gefen and Straub (2020) who said trust and security are very important for people to shop online. It also supports Kim et al., (2010) who explained that safe payment systems and protection from fraud help customers feel more confident buying online. Overall, the findings show that people in Nueva Ecija care a lot about security and trust when shopping online. Businesses should focus on keeping online shopping safe to attract more buyers.

Table 21
The impact of e-commerce on traditional purchasing patterns in Nueva Ecija

Dimensions	Mean	Verbal Description
Purchase Shift	3.29	Strongly Agree
Budget Allocation	2.95	Agree
Shopping Habits	2.97	Agree
Consumer Loyalty	3.24	Strongly Agree
Local Competitiveness	3.33	Strongly Agree
Security & Trust	3.31	Strongly Agree
Grand Mean	**3.33**	**Strongly Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

Table 21 shows that respondents strongly agree that e-commerce has a big effect on how people buy products in Nueva Ecija, with a grand mean of 3.33.

The high results in purchase shift, local competitiveness, and security and trust show that online shopping, competition, and consumer confidence are the main factors influencing this change. Lower scores in budget allocation and shopping habits

Table 22
The strategies of e-commerce platforms regarding pricing strategy

Indicators	Mean	Verbal Description
The prices of products reflect their actual value and quality	3.30	Strongly Agree
The prices of products on e-commerce platforms are reasonable.	3.27	Strongly Agree
I find better deals online compared to physical stores.	3.38	Strongly Agree
Price transparency in e-commerce makes me more confident in buying.	3.35	Strongly Agree
Online shops offer competitive pricing that attracts me to purchase.	3.40	Strongly Agree
Grand Mean	**3.34**	**Strongly Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

Table 23
The strategies of e-commerce platforms regarding promotional strategy

Indicators	Mean	Verbal Description
Discounts and vouchers encourage me to buy more online.	3.48	Strongly Agree
Flash sales and campaigns (e.g., 9.9, 11.11, 12.12) influence my purchasing decisions.	3.40	Strongly Agree
Free shipping promotions motivate me to shop online.	3.45	Strongly Agree
I am attracted by marketing ads and promotions on e-commerce platforms.	3.30	Strongly Agree
Regular promotions make me loyal to certain e-commerce platforms.	3.28	Strongly Agree
Grand Mean	**3.38**	**Strongly Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

Table 24
The strategies of e-commerce platforms regarding product strategy

Indicators	Mean	Verbal Description
The products sold on e-commerce platforms are of good quality.	3.22	Agree
I am satisfied with the variety of products available online.	3.32	Strongly Agree
The products I order online are usually accurate to their descriptions.	3.22	Agree
I believe e-commerce platforms offer authentic and reliable products.	3.21	Agree
Product packaging in online shopping meets my expectations.	3.25	Strongly Agree
Grand Mean	**3.24**	**Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

mean that some people still divide their spending between online and physical stores.

Overall, the results show that e-commerce has greatly changed how people shop and that local stores need to adjust to the new digital market.

E. The Strategies of E-Commerce Platforms

Table 22 shows the impact of e-commerce on traditional purchasing patterns in Nueva Ecija regarding pricing strategy. The grand mean is 3.34, which means Strongly Agree. This means most people believe online stores price their products fairly and attractively. Respondents strongly agreed that prices reflect the real value and quality of the products 3.30. They also strongly agreed that prices on e-commerce platforms are reasonable 3.27. Many said they find better deals online compared to physical stores 3.38. They feel more confident buying when prices are clear and easy to understand 3.35. Finally, they strongly agreed that competitive pricing from online shops attracts them to buy 3.40. These results support Chen and Xiong (2022), who found that clear and fair pricing builds trust and confidence in online shoppers. It also agrees with the Journal of Revenue and Pricing Management (2022), which showed that good pricing strategies help e-commerce platforms attract and keep customers. Overall, the findings show that pricing is very important in online shopping. Businesses should keep prices fair and clear to attract more buyers and keep them coming back.

Table 23 shows that respondents strongly agreed that discounts and vouchers make them buy more online with a score of 3.48. They also said that flash sales and special campaign days like 9.9, 11.11, and 12.12 affect their buying decisions, scoring 3.40. Many agreed that free shipping offers encourage them to shop online with a score of 3.45. They also said that ads and promotions on e-commerce sites catch their attention, scoring 3.30. Respondents strongly agreed that regular promotions make them loyal to certain online shops with a score of 3.28.

These findings show that promotions are very important in how people in Nueva Ecija decide to buy online. This agrees with Obiso, Balala, Samson, and Dadole (2022), who found that promotions often lead to quick buying, especially for younger shoppers. It also supports Pang and Ng, who said that regular marketing helps keep customers interested and coming back to buy again. Overall, the results show that good promotions help attract and keep customers on e-commerce platforms.

Table 24 shows that respondents agree that products sold on e-commerce sites are good quality, with a score of 3.24. They strongly agree that there is a wide variety of products available online, scoring 3.32. They also agree that the items they get usually match the descriptions with a score of 3.22 and believe the products are real, scoring 3.21. Many respondents also strongly agree that the packaging of products meets their expectations, with a score of 3.25.

These results show that good quality, real products, and many choices are important for people when shopping online. This supports what Dulay (2022) and others found, that offering real products and more options makes customers happy. It also agrees with Faustino and López (2024), who said that clear descriptions and good packaging help build trust and make customers want to buy again.

Table 25 shows how people in Nueva Ecija feel about customer service management on e-commerce platforms. The grand mean is 3.25, which means Strongly Agree. This means most people think online shops provide good customer service.

Table 25
The strategies of e-commerce platforms regarding customer service management

Indicators	Mean	Verbal Description
E-commerce platforms provide fast responses to customer inquiries.	3.18	Agree
Customer service agents are helpful in resolving my concerns.	3.21	Agree
I feel satisfied with how online platforms handle complaints.	3.17	Agree
Customer support improves my trust in the platform.	3.30	Strongly Agree
Good customer service makes me return to the same online shop.	3.69	Strongly Agree
Grand Mean	**3.25**	**Strongly Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

Table 26
The strategies of e-commerce platforms regarding local return and refund policy

Indicators	Mean	Verbal Description
The return and refund process in online shopping is easy to follow.	3.18	Agree
I trust e-commerce platforms to process refunds fairly.	3.18	Agree
The return policy makes me feel safe when buying online.	3.28	Strongly Agree
I am more confident to purchase online because of flexible return options.	3.28	Strongly Agree
Clear refund policies influence my decision to choose an e-commerce platform.	3.28	Strongly Agree
Grand Mean	**3.24**	**Strongly Agree**

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

Respondents agreed that e-commerce platforms respond quickly to questions 3.18. They also agreed that customer service agents help solve their problems 3.21. People feel satisfied with how complaints are handled 3.17. Many strongly agreed that good customer support makes them trust the platform more 3.30. Lastly, they strongly agreed that good customer service makes them return to the same online shop 3.69.

These findings support Garcia (2021), who said that fast and helpful customer service builds trust among Filipino online shoppers. It also agrees with Ramirez (2022), who found that good service encourages customers to keep buying from the same e-commerce platforms. Overall, the results show that customer service is very important in online shopping. Businesses should focus on quick, helpful support to keep customers happy and loyal.

Table 26 shows how people in Nueva Ecija feel about return and refund policies on e-commerce platforms. The grand mean is 3.24, which means Strongly Agree. This means most people believe the return and refund process is easy and fair.

Respondents agreed that the return and refund process is easy to follow 3.18. They also agreed that they trust e-commerce platforms to process refunds fairly 3.18. Many strongly agreed that return policies make them feel safe when buying online 3.28. People said they feel more confident buying because of flexible return options 3.28. Lastly, they strongly agreed that clear refund policies influence their choice of e-commerce platforms 3.28.

These findings support Bautista (2022), who said clear and fair return policies increase customer trust in Filipino online shoppers. It also agrees with Morales (2023), who found that flexible refund options encourage more people to shop online and feel safe. Overall, the results show that having easy, fair, and clear return and refund policies helps customers feel confident and loyal to e-commerce platforms.

Table 27 shows that respondents strongly agree that e-commerce sites use good strategies, with a score of 3.33. Discounts and sales got the highest ratings, followed by fair prices and helpful customer service. Product quality and return policies also got good scores but could be better. Overall, fair prices, nice promotions, good customer support, and clear return rules help build trust and attract people to shop online.

Table 27
The strategies of e-commerce platforms

Dimensions	Mean	Verbal Description
1. Pricing Strategy;	3.34	Strongly Agree
2. Promotional Strategy;	3.38	Strongly Agree
3. Product Strategy;	3.24	Strongly Agree
4. Customer Service Management; and	3.25	Strongly Agree
5. Return and Refund Policy	3.24	Strongly Agree
Grand Mean	3.33	*Strongly Agree*

Legend: 3.25-4.00 –Strongly Agree; 2.5-3.24 – Agree; 1.75-2.49 – Disagree 1.00-1.74 – Strongly Disagree

6. Summary of Findings, Conclusions and Recommendations

This section presents the summary of findings based on the interpretations and analysis made on the impact of e-commerce on consumer purchasing patterns in Cabanatuan City, Nueva Ecija. Conclusions and recommendations were provided based on the data.

A. Summary of Findings

1) Demographic Profile of Respondents

The data presented in this section were the key variables with the highest percentages. From a total of 384 respondents, 261 (68%) were male; the majority of respondents (71.4%) earn below Php 10,000. In terms of online shopping behavior, (33.9%) of the respondents most commonly shopped occasionally or less than once a month. Regarding platform preference, 100% of the respondents preferred Lazada and TikTok.

2) The Consumer Purchasing Behavior in E-Commerce

In terms of price sensitivity, consumers preferred to compare prices from different online sellers before purchasing with a mean of 3.62 (Strongly Agree). They also considered to prioritized affordable prices over other product features when shopping online with a mean of 3.12 (Agree). This meant that price remained a major determinant in shaping consumer choices in e-commerce, reflecting the rational and value-driven nature of digital shoppers.

As to convenience and accessibility, consumers preferred to

shop online anytime, which made it more convenient for them, with a mean of 3.55 (Strongly Agree). The lowest-rated indicator, though still rated Strongly Agree, was "Convenience is the main reason I choose e-commerce platforms" (Mean = 3.40). These findings revealed that online shopping's flexibility, time efficiency, and ease of access significantly shape consumer purchasing patterns.

As to product quality and variety, consumers strongly agreed that e-commerce platforms offered a wide range of products (Mean = 3.50) (Strongly Agree). However, the indicator related to trust in product quality received only an Agree rating (Mean = 3.11) (Agree). Consumers valued quality, a level of uncertainty still existed regarding the reliability of online products.

As to discounts and promotions, the statement "Consumers buy more products online when there are discounts" obtained the highest mean of 3.52 (Strongly Agree). Although the statement "Free shipping vouchers encourage me to shop online" received a slightly lower mean of 3.48 (Agree), the results indicated that promotional offers remained a significant factor influencing consumers' online purchasing behavior.

As to reviews and ratings, consumers checked customer reviews before making a purchase, which obtained the highest mean of 3.73 (Strongly Agree). Meanwhile peer reviews and ratings affected the consumers final purchase decision" recorded the lowest mean of 3.56. Although it had the lowest value under this category, it still fell within the "Strongly Agree" range. These results indicated that reviews and ratings significantly influenced consumers' purchasing behavior in e-commerce.

As to mode of payment, consumers preferred platforms offering multiple payment options with a mean 3.50 (Strongly Agree) and consumers avoid shopping from sellers with limited payment options" received a mean of 3.19 (Agree). This implied that payment methods significantly influenced consumers' purchasing decisions when shopping online.

Lastly to delivery time and cost, consumers preferred shopping platforms with reliable delivery services with a highest mean 3.59 (Strongly Agree). The statement "I was willing to wait longer if shipping was free" received a mean of 3.17 (Agree). The results revealed that respondents strongly agreed that delivery time and cost significantly influenced their purchasing behavior in e-commerce.

B. The Impact of E-Commerce on Traditional Purchasing Patterns in Nueva Ecija

In terms of purchase shift, respondents chose online platforms first before considering physical stores with a mean of 3.41 (Strongly agree) and consumers preferred buying products online instead of visiting physical stores received the lowest mean of 3.19 (Agree). This showed that many consumers preferred online shopping.

As to budget allocation, respondents strongly agreed that a big part of their budget now goes to online shopping with a highest mean of 3.82 and respondents agreed with lowest mean 2.79 that they have a fixed amount each month for online buying.

In terms of shopping habits, consumers said they spend more time browsing online shops than going to physical stores with a highest mean of 3.12 (Agree) and that online shopping is now part of their usual routine received the lowest mean 2.77 (Agree). These results showed that many people now use online shopping more often in their daily lives.

As to consumer loyalty, they strongly agreed that they stick to brands they trust when shopping online 3.39 and respondents agreed that they often buy from the same online store or platform 3.24 (Agree).

As to local competitiveness, respondents strongly agreed that online stores provide more product choices than local retailers with the highest mean 3.36 and also strongly agreed that e-commerce offers better prices compared to local shops 3.30.

Lastly, as to security & trust, consumers strongly agreed that concerns about scams or fraud affected their online shopping decisions with the highest mean 3.48 (Strongly agree) and they feel safe when making online purchases received the lowest mean 3.09 (Agree).

C. The Strategies of E-Commerce Platforms

In terms of pricing strategy, consumers strongly agreed that competitive pricing from online shops attracts them to buy 3.40. They also strongly agreed that prices on e-commerce platforms are reasonable 3.27.

In terms of promotional strategy, consumers strongly agreed that discounts and vouchers make them buy more online with a score of 3.48 and they also strongly agreed that regular promotions make them loyal to certain online shops with a score of 3.28.

As to product strategy, consumers strongly agree that there is a wide variety of products available online with the highest mean 3.32 (strongly agree). However, believe e-commerce platforms offer authentic and reliable products got the lowest mean 3.21 (agree).

As to customer service management, consumers strongly agreed that good customer service makes them return to the same online shop with the highest mean 3.69 (strongly agree). People feel satisfied with how complaints are handled and got the lowest mean 3.17 (agree).

In terms of local return and refund policy, consumers strongly agreed that return policies make them feel safe when buying online, they feel more confident buying because of flexible return options and that clear refund policies influence their choice of e-commerce platforms with highest mean 3.28. The lowest mean 3.18 (Agree) were return and refund process is easy to follow and they trust e-commerce platforms to process refunds fairly.

D. Conclusions

This study explored how e-commerce is changing the way people in Cabanatuan City buy products. Based on the results, several important insights can be concluded.

First, most online shoppers in the city are young, male, and students who usually have limited income. Despite having small budgets, they are very active online and regularly browse or buy items that fit their needs and preferences. This shows

how much younger consumers rely on online platforms for convenience and affordability.

Second, the study found that seven major factors influence how people shop online: price, convenience, product quality, availability of discounts, customer reviews, payment options, and delivery time and cost. Among all these, customer reviews and ratings have the strongest influence. People trust the experiences of other buyers and use reviews to decide whether a product is worth purchasing. Consumers also tend to compare prices, wait for discounts, and choose sellers who offer fast and affordable delivery. Although digital payments are becoming more common, cash on delivery remains the most preferred method, showing that many shoppers still value safety and reassurance before paying.

Third, the findings clearly show that e-commerce has changed traditional shopping habits. Many consumers now buy both essential and non-essential items online, visit physical stores less often, and even set aside part of their monthly budget for online purchases. Online shopping has become a normal part of their routine—checking deals, browsing items, and comparing products from different sellers.

Fourth, online loyalty is becoming stronger. Consumers often return to the same sellers or platforms that offer good customer service, reliable delivery, and consistent product quality. This means that once trust is built, customers are likely to stay loyal. The study also shows that people view e-commerce as more competitive than local stores, mainly because of cheaper prices, wider product choices, and the convenience it brings. Because of this, traditional stores are encouraged to adapt, improve their services, and consider developing a stronger online presence.

Lastly, while some consumers still worry about scams and fraud, many have developed a level of trust in online platforms—especially those that provide secure payment systems and clear return or refund policies. This trust plays a major role in motivating them to continue shopping online.

Overall, the study concludes that e-commerce has become a powerful influence on the purchasing patterns of consumers in Cabanatuan City. It shapes how they compare products, make decisions, and allocate their budgets. As online shopping continues to grow, businesses that learn to adapt—by improving product quality, strengthening their online services, and ensuring customer trust—will be better equipped to meet the needs of today's digital consumers.

E. Recommendations

Based on the findings of this study on the impact of e-commerce on consumer purchasing patterns in Cabanatuan City, Nueva Ecija, the following recommendations are hereby presented. These recommendations are aligned with the key variables examined in the research and are intended to guide local businesses, consumers, e-commerce platforms, and policymakers in adapting to the continually evolving digital marketplace.

1) For Local Businesses and Retailers

1. Strengthen Online Presence and Adopt Omnichannel Strategies. Local businesses are encouraged to establish or enhance their online presence through major e-commerce platforms and social media marketplaces. Integrating both online and offline selling approaches may help improve market reach and customer engagement.

2. Ensure Product Quality and Accurate Information. Businesses should provide clear, accurate descriptions and high-quality photos to set proper expectations. Consistent product quality strengthens consumer trust, which is essential given the high influence of reviews and ratings on purchasing decisions.

3. Offer Competitive Pricing and Timely Promotions. Since consumers show high price sensitivity, local sellers are encouraged to participate in sale events and provide attractive promotions such as free shipping vouchers and bundle deals.

4. Improve Delivery Services and Logistics Efficiency. To address the importance of delivery time and cost, businesses should partner with reliable couriers and ensure transparency in delivery expectations. Faster and more reliable delivery can increase customer satisfaction and loyalty.

5. Enhance Customer Service and After-Sales Support. Providing accessible customer service channels and fair return/refund policies can help increase buyer confidence. Quick resolution of customer concerns can also strengthen loyalty toward local sellers.

2) For E-Commerce Platforms

1. Expand and Secure Payment Options. Platforms should continue improving digital payment systems while maintaining Cash-on-Delivery for consumers who prefer traditional methods. Incentives for secure digital payments may also increase adoption.

2. Strengthen Consumer Protection Measures. Enhanced verification for sellers, stricter monitoring of fraudulent activities, and improved dispute-resolution processes will help address issues concerning trust and safety.

3. Support MSMEs Through Capacity-Building Programs. Platforms may offer training sessions on digital marketing, store management, and logistics handling to help small entrepreneurs compete in the digital marketplace.

4. Improve Local Logistic Hubs. Establishing localized fulfillment hubs within Cabanatuan City can help reduce shipping time and cost for both sellers and consumers.

3) For Consumers

1. Practice Safe and Informed Online Shopping. Consumers should evaluate product reviews, compare prices, and verify seller credibility before making online purchases.

2. Strengthen Awareness and Use of Secure Digital Payments. Consumers are encouraged to familiarize themselves with digital wallets and online banking while practicing secure online transactions to reduce risks of fraud.

3. Be Mindful of Delivery and Return Policies. Understanding shipping fees, timelines, and return procedures can help consumers make informed decisions and avoid dissatisfaction.

4) For Policymakers and Local Government Units

1. Implement Digital Literacy and E-Commerce Education Programs. LGUs may develop community-based programs that educate residents on secure online transactions, digital payments, and e-commerce opportunities.
2. Support Local Entrepreneurs Transitioning to Digital Platforms. Providing training, financial assistance, or incentives may help businesses adopt digital systems and remain competitive in the online market.
3. Strengthen Consumer Protection Enforcement. LGUs should coordinate with relevant agencies to ensure the implementation of consumer protection laws against fraudulent online sellers and unsafe business practices.

5) For Future Researchers

1. Expand the Scope of Participants and Variables. Future studies may include perspectives from e-commerce sellers, couriers, or platform managers to provide a more holistic understanding of the e-commerce ecosystem.
2. Utilize Mixed-Methods or Comparative Research Designs. Future research may combine quantitative and qualitative approaches or compare results across different cities or provinces to determine broader patterns and trends.

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