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Research Article

The Influence of Convenience, Pricing, Accessibility, and Product Variety on the Perceived Practical Utility of Online Shopping

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ABSTRACT

Today, online shopping has become a core activity of consumers, especially among digital-savvy college students. While the importance of convenience, price, easy access and product variety is well known, the combined effect of these four factors on perceived practical utility has not been investigated. Among 380 college students in Cebu City, Philippines, the relationships established between these four features and practical utility have been examined using this descriptive-correlational quantitative design. Information was gathered using a structured questionnaire (14 items; Cronbach's $\alpha = 0.897$) and analysed using descriptive statistics and a regression model. Participants believed that online shopping is convenient ($M = 3.98$), provides price advantages ($M = 4.04$), high accessible ($M = 4.30$) and provides various product options ($M = 4.09$). The results indicated that convenience had a significant positive effect on practical utility ($\beta = 0.66, p < .001$), price ($\beta = 0.61, p < .001$), accessibility ($\beta = 0.74, p < .001$) and product variety ($\beta = 0.73, p < .001$). However, this was not the case in multiple regression model ($R^2 = .58$) where accessibility ($\beta = 0.34$), convenience ($\beta = 0.28$) and product variety ($\beta = 0.24$) remained significant while price advantage became non-significant ($p = .137$). The practical utility of online shopping is provided by accessibility, convenience and assortment of products. Price is less important in combination with other factors. For E-commerce, to increase perceived usefulness and promoting the consumer loyalty, it should be done by emphasizing on mobile friendly accessibility, intuitive navigation, and wide assortment of items

Keywords: Accessibility, Convenience, Online Shopping, Practical Utility, Product Variety

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Introduction

Today, mobile connectivity and digital change are revolutionizing retail across the globe into a new consumer terrain of online shopping (Suryanarayana, 2023). Research among Millennial consumers found that mobility positively influenced the perceived ease of using mobile-commerce applications and that perceived ease of use positively contributed to customer satisfaction (Ngubelanga & Duffett, 2021). E-commerce is expanding across the Philippines, with 73.6% internet penetration and 99.3% mobile penetration. In the last five years alone, it has increased four times (Data-Reportal, 2024; Ou, 2025). For example, it is estimated that in this country today already 57% of e-commerce transactions are being conducted on mobile devices (Payments and Commerce Market Intelligence, 2024). Considering the rapid digitalization at the global and local level, it is interesting to understand what influences perceived usefulness in this context.

The current study is based on the Technology Acceptance Model (TAM) that states that perceived usefulness is one of the major determinants of technology adoption (Mollick et al., 2023). In convenience frameworks, transaction and possession conveniences are positively related to perceived value and repurchase intentions (Pham et al., 2018). The mobile-commerce perspectives highlight the consumers' convenience and smartphones compatibility (24/7) to influence their behaviors (Mollick et al., 2023). Product variety is associated with variety-seeking behavior, and it is a factor of satisfaction and customer loyalty through a variety of choices (Zhang, 2022). Conversely, price promotions can influence buying decisions but ultimately rely on usability and product quality signals (Kim, 2024). Together, these theories provide a powerful framework to investigate the effects of convenience, price, access and variety on the practical utility of online shopping.

Recent research on e-commerce globally indicates that customer accessibilities, in particular mobile phones and on-demand platform accessibilities are the most important factors for consumer engagement and loyalty across the globe (Mollick et al., 2023). Convenience (e.g. ease of use, time saving and comfort) is a strong predictor for satisfaction and intention to buy in a variety of markets (Pham et al.,

2018). A variety of products are also necessary to compare, reduce the decision fatigue and encourage retention in competitive digital environments to increase discovery (Zhang, 2022). In some contexts, pricing advantage can be very powerful but less so when we consider experiential attributes such as usability, accessibility and breadth of assortment in the same way (Kim, 2024). We report these findings as collective evidence that practical utility is a multi-dimensional judgement that is determined by ease of use, access and variety. For young tech-native consumers, these aspects are very appealing in their navigation of global online market spaces.

We know a lot about how people shop online, and how convenience, price, accessibility and product variety drive that behaviour. However, the existing global literature does not provide evidence of the combined effect of these factors in a single predictive model. Past studies have looked at the effect of these factors on convenience or price individually. However, the interaction effect of these factors on perceived utility has been little researched (Mollick et al., 2023; Pham et al., 2018). Recent literature suggests that the experiential dimensions of convenience, access and product diversity can be complementary but the relative impact of each is unknown (Kim, 2024; Zhang, 2022). The present study seeks to address this gap by examining these variables simultaneously for a better understanding of their influence on consumers perceived practical value of online shopping.

The purpose of this study is to identify the very features of online shopping that affect the college students' perception of the practical usefulness of e-commerce. It's most notable that it is drawn up to assess those factors, and to compare the significance of price advantages by different measures to others: access to online platforms, shopping ease, and the breadth of products offered. This study reveals some of these constructs to add to the knowledge of universities, local businesses and online platforms on how these characteristics affect how value is viewed by users. These findings would be used to direct stakeholders to better practices which would have a positive impact on perceptions of value, user

experience and ultimately result in greater engagement and loyalty from student consumers.

The study is based on the following questions: (RQ1) How is perceived convenience associated with tangible benefits of online shopping among college students? (RQ2) How is perceived pricing advantage related to perceived practical utility in online shopping? (RQ3) How does perceived accessibility relate to perceived practical utility of online shopping? (RQ4) How does the perceived product variety affect the utility of online shoppers? (RQ5) When the four attributes (convenience, price advantage, accessibility and product variety) are modeled together, which of the four has a significant effect on practical utility and which attribute(s) do not?

So this survey is based on the null hypotheses and asks the following research questions: (H01) Convenience has no significant effect on actual use among college students; (H02) Pricing advantage has no significant effect on online shoppers' practical utilization; (H03)

Accessibility has no significant effect on customers' practical utility in online shopping; (H04) Product variety has no significant effect on online usage; (H05) In the multiple regression model which takes account of all four predictors, no significant association exists between these four attributes and practical utility.

Figure 1 represents a conceptual diagram relating to four independent variables — online shopping convenience, pricing advantage, online shopping accessibility, shopping product variety — and online shopping practical utility — showing how they relate to online shopping practical utility. These independent variables are shown as related to the dependent variable, emphasizing the individual function of these variables in the model as independent factors. It further indicates that these variables are represented in one coherent theoretical schema so as to provide visualizations of the suggested correspondences investigated in research.

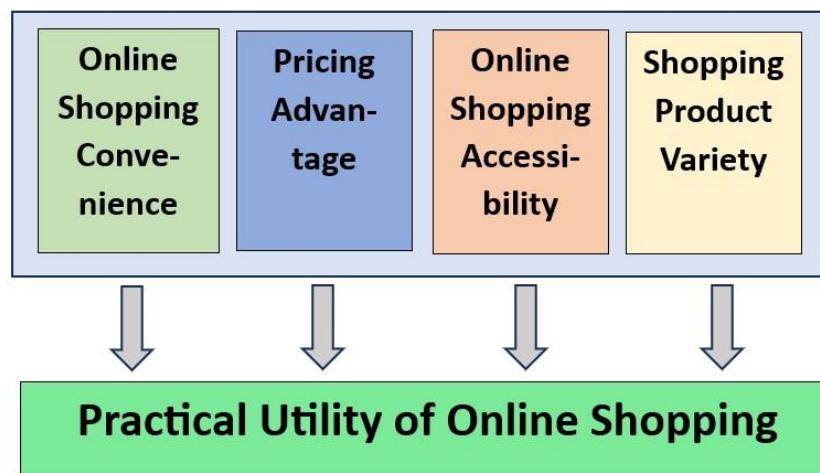


Figure 1. Conceptual Model of the Relationship Among Online Shopping Convenience, Pricing Advantage, Online Shopping Accessibility, Shopping Product Variety, and Practical Utility of Online Shopping

All of the independent variables in this model are for practical utility of online shopping, which means that each contributes to consumer perception of usefulness. Some of these variables naturally dominate how they influence practical utility in comparison with the others, considering them together. The structure is combined allowing for each of the factors to have its own effect but that their relative

effect is going to change, once they are interacting together and all under any one predictive model, making some of them stand out more than the others.

Material and Methods

Research Design

The present study adopted a quantitative descriptive-correlational research design to

explore the relationships between online shopping convenience, pricing advantage, accessibility, product variety and practical utility. This design appeared appropriate as the researchers wanted to describe the perceptions of the participants and to show statistical relationships between the variables. We mainly focused our attention on the analysis of the dependence of the practical usefulness of the online shopping on convenience, pricing, accessibility, and product variety.

Respondents

The target population of the present study were college students from different universities in Cebu City, Philippines who are active users of online shopping. The survey was completed by a total of 380 students. The online survey had been sent out to college students from different universities in Cebu City and those who were willing and available to share their online shopping experiences were able to participate hence the use of voluntary response sampling. This method provided a practical means of reaching out to students at several institutions and allowing them to decide whether or not to participate. All respondents gave their written informed consent and the confidentiality of their responses was protected throughout the study.

Instruments

The questionnaire consists of five parts considering the convenience, pricing advantage, accessibility, product variety, and practical utility. Three statements were used to measure the convenience of each of the four independent variables and two statements were used to measure practical utility. Reliability testing of the collected datasets yielded coefficients of .8075 for convenience in online shopping, .8404 for pricing advantage, .8681 for online shopping accessibility, and .7632 for variety in online shopping products, which are all evidence of relatively very good internal consistency. Due to it being only two items online, Spearman-Brown coefficient formula was used for its practical utility in online shopping. The coefficient value is .8811, indicating great internal consistency.

Recent studies back up the comments on the convenience of shopping online. Recent

cross-country evidence similarly indicates that convenience and efficiency contribute to the perceived usefulness of online shopping and consumers' intentions to continue using the online channel (Shaw et al., 2022). An important contributor to the online shopping experience is also the ease of navigation: Website design and usability are also important contributors to the online shopping experience, with greater usability associated with higher customer satisfaction and loyalty (Guo et al., 2023). Finally, online shopping is regarded as more comfortable and less effortful than in-store shopping. Braga and Jacinto (2022) showed that online shopping contexts promote low-effort heuristics that sustain the illusion of convenience and low cognitive demand.

Previous studies support the statements made regarding the variable, Online Shopping Accessibility. To begin with, online shopping shatters the restrictions of physical store hours: Waqas et al. (2023) observe the "always-on" feature of e-commerce that has been a boon for many consumers, who can shop at any time of day and night. For a second reason, their availability is not purely theoretical, as its active contribution encourages the behaviour of shopping, most notably in light of the COVID-19 context, during which flexibility has become essential (Waqas et al., 2023). In the end, mobile devices have democratized online shopping even more: Luceri et al. (2022) find that smartphones provide the primary tool enabling consumers to shop conveniently from anywhere, which means that online stores are significantly more accessible compared to physical shops.

Recent literature supports the statements regarding the variable Online Shopping Product Variety. Online marketplaces offer extensive product and seller assortments, and consumers' perceptions of greater variety are positively associated with customer loyalty (Metehan et al., 2025). Second, product variety can be particularly relevant in mobile shopping, as smartphone use has been found to strengthen consumers' preferences for unique and self-expressive products (Song & Sela, 2023). Finally, online shopping facilitates the comparison of available alternatives. In a large study of consumers, the ability to compare

products was identified as an important driver of online-shopping behavior (Venkatesh et al., 2022).

The statements on Practical Utility of Online Shopping are supported with the present academic study. To start with, some consumers mentioned obtaining substantial benefits from online shopping (Waqas et al., 2023). They provided a comprehensive systematic review and recognized practical benefits as the main motivators for customers: convenience, saving money, and flexible access to products. Second, perceived usefulness has been found to positively influence consumers' intention to use mobile commerce, confirming that consumers are more inclined to shop online when they recognize clear practical benefits from the platform (Mollick et al., 2023).

Data Collection

Data were collected following an online survey facilitated through Google Forms sent to college students from different universities in Cebu City. Participants read an informed consent form before answering, in which they were informed about the study's aim, the voluntary nature of participation, and the confidentiality of their responses. The questionnaire was further divided into 3 sections depending upon the study variables and used a 5-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5). All responses were recorded in Google Forms and processed for statistical analysis.

Data Analysis

Descriptive and inferential statistical techniques were used to analyze this data. Descriptive statistics, including mean computations, were used to summarize

respondents' perceptions regarding the convenience of online shopping, the pricing advantage, accessibility, product variety, and practical utility. To analyze the associations between the variables, regression analysis was used to identify the predictors of practical utility as features of convenience, pricing structures, product accessibility, and variety. The application of regression techniques was suitable to test the hypotheses and gave empirically grounded results as to whether these factors in turn contribute to perceived usefulness of online shopping.

Ethical Considerations

Participants were adequately informed about the nature of the study, scope, and expected risks of participation prior to participation. The data was collected anonymously to verify that no personal identifiers of the participant were recorded. Participation was completely voluntary as all subjects were free to withdraw at any time without facing any negative consequences. The research adhered to the ethics of ethical conduct outlined in the American Psychological Association's (2017) Ethics Code when discussing informed consent, confidentiality, and the caretaking of research data.

Result and Discussion

Online Shopping Convenience

A table showing mean scores calculated for three dimensions of online shopping convenience. We consider these factors through time, navigation, and the comfort that people have about the experience of shopping online in comparison to conventional sales. The data presented is a summary of how well the respondents agree or disagree with each of the statements and the mean of the construct.

Table 1. Means and Levels of Agreements of Online Shopping Convenience

Online Shopping Convenience	Means	Interpretation
1. Online shopping allows me to save time compared to traditional shopping.	3.97	Agree
2. I find online shopping simple and easy to navigate.	4.10	Agree
3. Online shopping feels more comfortable and less effortful than shopping in physical stores.	3.87	Agree
Average	3.98	Agree

Legend:

Mean scores	Interpretation
1.00 – 1.80	Strongly Disagree
1.81 – 2.60	Disagree
2.61 – 3.40	Neutral
3.41 – 4.20	Agree
4.21 – 5.00	Strongly Agree

Obviously, most of the respondents find online shopping convenient. The three signs are within the consensus, which suggested that participants thought online shopping was more comfortable than off-line retail shopping, easy to use and time-saving. The net mean of 3.98 suggests that it is reasonable for most of the respondents to consider online shopping convenient.

The respondents' high level of agreement ($M = 3.98$) with all three convenience dimensions of time-saving ($M = 3.97$), ease of navigation ($M = 4.10$) and comfort/reduced effort ($M = 3.87$) illustrates the importance of convenience in creating positive online shopping perceptions. This is supported by Feby Khairial and Ridanasti (2023) which showed that multiple dimensions of online convenience has a significant effect on customer satisfaction, behavioral intention and e-WOM (electronic word-of-mouth) when considering Indonesian e-commerce. Chakraborty (2024) recognized transaction convenience and post-purchase convenience as the most significant predictors of purchase

intention of young consumers. Convenience (transaction convenience and possession convenience) has a positive effect on consumers' attitudes toward online purchase and impulse buying, which is consistent with the results of You et al. (2022). The findings collectively imply that the same ease of use concerning time efficiency, platform usability and comfort can significantly boost consumer satisfaction and purchase intentions, reaffirming the idea that convenience is a strategic lever for e-tailers who want to increase engagement and loyalty.

Pricing Advantage in Online Shopping

The mean scores for the three factors of pricing advantage of a product in online shopping are given in the table. These are indicators about affordability notion, if there are discounts and price comparison with mall or physical store prices. The data are presented as a summary of the extent to which respondents agreed with each statement and an overall mean score for the construct.

Table 2. Means and Levels of Agreements of Pricing Advantage in Online Shopping

Pricing Advantage in Online Shopping	Means	Interpretation
1. Online shopping offers more affordable prices than physical stores.	3.97	Agree
2. Online shopping provides more discounts compared to in-store shopping.	4.18	Agree
3. Online shopping prices are generally better than mall prices.	4.03	Agree
Average	4.04	Agree

Legend:

Mean scores	Interpretation
1.00 – 1.80	Strongly Disagree
1.81 – 2.60	Disagree
2.61 – 3.40	Neutral
3.41 – 4.20	Agree
4.21 – 5.00	Strongly Agree

The results show the overall level of agreement of the respondents to the statement that online shopping has a price advantage. All

three indicators are in the "Agree" range which implies that participants think online shopping is cheaper because it offers better discounts,

and overall has a better price than shopping in stores or even malls. The overall average of 4.04 supports the position that the pricing advantage has a strong impact in the choice for the customers to shop through a website.

Consistency with price-related statements – affordability ($M = 3.97$), discount presence ($M = 4.18$), and better prices than malls ($M = 4.03$) indicates the respondents clearly agree that online shopping brings great economic advantages and therefore, reflected a total mean of 4.04. Previous research has extensively documented these types of price advantages to significantly increase consumer responsiveness and purchase intention through use of targeted price reductions (Li & Chen, 2024). Discount strategies implemented by e-commerce platforms and retailers are critical for attracting consumers, and can create a market-wide advantage when employed correctly (Li & Chen, 2024). Moreover, Zhao et al. (2021) found that pricing has a huge effect on consumer buying

behaviour. Indeed, price affects satisfaction and purchase intention as they are key in making purchase decisions. This means that offers and promotions and competitive pricing online should not only be seen as the consumer magnet, but may also be perceived as a leverage towards maximising satisfaction and repeat purchasing behaviour, thus showing the strategic importance of the price advantage on the e-commerce success.

Online Shopping Accessibility

The table displays the computed mean scores for three variables of online shopping accessibility. These indexes relate to being able to shop at any time, the constant availability of online platforms compared to brick and mortar shops, and the availability through mobile devices. Data describe the degree to which respondents agreed or disagreed to each question, and, in addition, an aggregate mean on a construct level.

Table 3. Means and Levels of Agreements of Online Shopping Accessibility

Online Shopping Accessibility	Means	Interpretation
1. I can shop online anytime, unlike physical stores with limited hours.	4.29	Strongly Agree
2. Online shopping is always available compared to traditional stores.	4.26	Strongly Agree
3. Online stores are easily accessible through my mobile device, unlike physical shopping.	4.35	Strongly Agree
Average	4.30	Strongly Agree

Legend:

Mean scores	Interpretation
1.00 – 1.80	Strongly Disagree
1.81 – 2.60	Disagree
2.61 – 3.40	Neutral
3.41 – 4.20	Agree
4.21 – 5.00	Strongly Agree

Results indicate that respondents overwhelmingly believe that online shopping is very accessible. All three indicators are in the “Strongly Agree” range indicating that consumers view online shopping as a great avenue for time flexibility, continuous availability, and being able to easily access the shopping service via a mobile device. A total mean of 4.30 again supports and strengthens

the notion of the accessibility of online shopping as a key benefit.

The good agreement in the indicators (mean $M = 4.30$) indicated that online shopping has accessibility as a significant strength, because it is available 24 hours a day and also has a mobile-comfortable application. Studies have evidenced that time choice and mobile accessibility lead to higher consumer

satisfaction and loyalty. For example, Mollick et al. (2023) have shown that mobile accessibility to the mobile shopping environment positively affects purchase intention and customer engagement. Similarly, Pantano et al. (2020) further pointed out that continuous availability and convenience are key determinants of consumer trust and usage. Similarly, research among Millennial consumers showed that mobility positively influenced the perceived ease of using mobile-commerce applications, while perceived ease of use contributed to customer satisfaction (Ngubelanga & Duffett, 2021). This implies that mobile accessibility improvement and uninterrupted service, can reinforce customer retention and competition advantages for e-commerce sites.

Online Shopping Product Variety

We reported the computed scores for three factors on the level of variety of products available online in the table. These measures indicate whether a lot of products are available to buy on mobile, where it is easier and affordable to discover limited or hard-to-access items online, and how easier it is to compare products than to shop at other brick-and-mortar stores. The summary for data was the extent to which the questionnaire participants agreed with each statement, as well as an average score across all items (mean overall score).

Table 4. Means and Levels of Agreements of Online Shopping Product Variety

Online Shopping Product Variety	Means	Interpretation
1. Online stores offer a wide range of products accessible through my phone.	4.32	Strongly Agree
2. I can find rare or hard-to-get items online compared to physical stores.	4.00	Agree
3. Online shopping makes it easier to compare different products than in physical stores.	3.96	Agree
Average	4.09	Agree

Legend:

Mean scores	Interpretation
1.00 – 1.80	Strongly Disagree
1.81 – 2.60	Disagree
2.61 – 3.40	Neutral
3.41 – 4.20	Agree
4.21 – 5.00	Strongly Agree

The survey results show that a large majority of respondents feel that there is a large product variety when shopping online. We found the mean score to be 4.32, which indicates strong agreement that online stores offer a very diverse range of goods that can be accessed using mobile devices. There is still agreement that it is easier to find rare items (4.00) and to compare items on the web than in more traditional offline stores (3.96). The average-point of overall items is 4.09, which indicates that the variety as a feature of online shopping experience is perceived as important by the respondents.

The high mean score of the variety of products ($M = 4.09$) further supports that

consumers very much appreciate the variety and depth of products offered online. High agreement from consumers who can shop diverse products on mobile ($M = 4.32$) and search for rare/not obtainable items ($M = 4.00$) but also appreciates easy comparison ($M = 3.96$), the easy comparison of products. Research suggests that the tendency of variety-seeking behavior is to test other products and this is expressed in satisfaction and involvement in the digital consumption contexts; more variety, more fun and less decision fatigue (Zhang, 2022). The same applies to the use of global marketplaces. A very recent report highlights that consumers seek variety online, so that they can discover

and compare products, and emphasizes the need for vast assortments in e-commerce (Channel Engine & Sapio Research, 2025). Therefore, large and accessible product catalogues and strong comparison tools can be instrumental to provide for a richer consumer experience and develop more loyalty in the online shopping environments.

Practical Utility of Online Shopping

The mean scores of the two indicators of practical utility of online shopping as calculated are shown in the table. These indicators concern the benefits and functional benefits of online shopping for consumers. The data shows the level of agreement of the respondents to each statement, and a mean score for the construct.

Table 5. Means and Levels of Agreements of Practical Utility of Online Shopping

Practical Utility of Online Shopping	Means	Interpretation
1. I gain significant advantages from online shopping.	4.07	Agree
2. Online shopping provides practical benefits for me.	4.08	Agree
Average	4.07	Agree

Legend:

Mean scores	Interpretation
1.00 – 1.80	Strongly Disagree
1.81 – 2.60	Disagree
2.61 – 3.40	Neutral
3.41 – 4.20	Agree
4.21 – 5.00	Strongly Agree

The findings demonstrate that the respondents consider that online shopping offers practical utility. Two indicators – obtaining significant advantages ($M = 4.07$) and practical benefits ($M = 4.08$) – are in the “Agree” interval. Overall, the 4.07 average shows that consumers consider online shopping as valuable and helpful in order to enhance the shopping experience.

Table 5 shows that online shopping shows practical advantages and benefits on average 4.0 or over for most respondents. Thus, this would indicate that consumers accept online shopping as useful and convenient (Waqas et al., 2023), and it is also consistent with other recent research suggesting that time savings, accessibility and ease of use were vital indicators of a positive online shopping experience. Furthermore, perceived convenience and variety of products have been shown to have an impact on purchase intentions, further validating that utility is an important aspect among the consumers (Abdul-wahid et al., 2024). Recent evidence applying the Technology Acceptance Model to e-commerce likewise indicates that perceived

usefulness enhances customer satisfaction, which subsequently supports repurchase intention (Nuralam et al., 2024). Thus, the high consensus obtained from this study suggests the improvement of practical benefits can also enhance consumers' engagement and loyalty in online shopping contexts.

Online Shopping Convenience and Practical Utility of Online Shopping

Table 6 shows results for regression analysis of the relationship between convenience of online shopping and practical utility of online shopping. The table then presents the standardized regression coefficient, the standard error, the t-value, and the corresponding p-value for the predictor variable, the 95% confidence interval, and the partial correlation coefficient. Furthermore, an overview of the regression model including coefficient of determination, adjusted coefficient of determination, F-statistic, significance level, and sample size is presented. Together this information summarizes the statistical estimates and model characteristics derived from the analysis.

Table 6. Relationship between Online Shopping Convenience and Practical Utility of Online Shopping

Predictor	β	SE	t	p	95% CI for β	Partial r
Shopping Convenience	0.6644	0.0402	16.52	<.001	[0.5853, 0.7435]	≈ 0.648

Note. Model summary: $R^2 = .42$, adjusted $R^2 = .42$, $F(1, 378) = 272.99$, $p < .001$, $N = 380$. Confidence intervals are 95%. p values are two-tailed. Intercept not shown for brevity.

The results indicate significant positive relationships between the convenience of shopping and practical utility of online shopping. In fact, more specifically, a 1-unit increase in shopping convenience leads to an increase of 0.66 units in the practical utility score, which is a precise estimate (95% CI: 0.59–0.74). The very small p value and large t statistic support strong association and the model explains about 42% of practical variance utility. There exists a partial correlation (~ 0.65), that indicates a strong relation between both these variables in this model.

This finding adds to and extends previous empirical evidence on the effect of convenience on online shopping outcomes. The $\beta=0.66$ coefficient is steeply sloped and indicates a strong positive effect: Practical utility increases greatly with increasing perceived convenience. This result is consistent with Shaw et al. (2022), whose cross-country study found that convenience and efficiency contribute to the perceived usefulness of online shopping and, ultimately, to consumers' intentions to continue shopping online. More recent evidence among Generation Z consumers similarly indicates that online shopping convenience is positively associated with

customer satisfaction, which in turn supports repurchase intention (Nguyen & Nguyen, 2026). Huang & Bronnenberg (2020) have also quantified benefits of convenience as a form of consumer welfare, estimating that the decreased transportation cost is about one quarter of the total benefits of e-commerce, reiterating the great importance that convenience affords to consumers when trying to evaluate utility of online services (Huang & Bronnenberg, 2020).

Pricing Advantage in Online Shopping and Practical Utility of Online Shopping

Table 7 presents the results of the regression analysis conducted to examine the relationship between the advantage of pricing in the online shopping environment and the realistic usefulness of shopping online. The table shows the standardized regression coefficient of the predictor variable, standard error, t value and p value, as well as the 95% confidence interval and partial correlation coefficient. It also has a summary of the regression model, coefficient of determination report, adjusted coefficient of determination, F-statistic and significance level and the total number of observations used.

Table 7. Relationship between Pricing Advantage in Online Shopping and Practical Utility of Online Shopping

Predictor	β	SE	t	p	95% CI for β	Partial r
Pricing Advantage	0.6138	0.0445	13.80	<.001	[0.5263, 0.7012]	≈ 0.58

Note. Model summary: $R^2 = .34$, adjusted $R^2 = .33$, $F(1, 378) = 190.49$, $p < .001$, $N = 380$. Confidence intervals are 95%. p values are two-tailed. Intercept not shown for brevity.

The results show a potent and meaningful positive effect of pricing advantage on online shopping practical utility. The one unit increase in perceived relative value of the price adds approximately 0.61, on average, to practical utility. The confidence interval implies that this effect is accurate, being between about 0.53 and 0.70. The very small p value and large t statistic demonstrate this relationship as strong. The model explains approximately 34%

of the variance in practical utility, and the partial correlation (≈ 0.58) indicates a substantial association between pricing advantage and practical utility within this model.

The positive correlation between price advantage and practical utility points to one of the numerous patterns found in e-commerce research: that competitive pricing increases consumers' perceptions of usefulness and

satisfaction. For instance, Zhao et al. (2021) showed that fair and appealing pricing had a significant impact on purchase intent and had a mediating role of customer satisfaction – that is, price acts to boost perceived utility by enhancing satisfaction. Likewise, Kim (2024) found that promotions at price generally increased sales and customer's perception, however the effect is highly contingent on the quality perception of the products and the circumstances in reviews. These studies collectively support the assertion indicated in Table 7: stronger pricing advantages increase practical utility based on an increase perceived value and consumer trust.

Online Shopping Accessibility and Practical Utility of Online Shopping

Results of the regression analysis were presented in Table 8 to analyze the relation between the accessibility of online shopping and the pragmatic usefulness of online shopping. The table presents the statistical scores for the predictor variable (standardized regression coefficient, standard error, t value and related *p* value). It contains also the 95% confidence interval for estimated coefficient and the partial correlation value. Furthermore, the model summary statistics are mentioned—including the coefficient of determination, adjusted R^2 , *F*-statistic, significance level, and the total number of observations entered for the analysis.

Table 8. Relationship between Online Shopping Accessibility and Practical Utility of Online Shopping

Predictor	β	SE	<i>t</i>	<i>p</i>	95% CI for β	Partial <i>r</i>
Online Shopping Accessibility	0.7412	0.0406	18.25	< .001	[0.6614, 0.8211]	≈ 0.68

Note. Model summary: $R^2 = .47$, adjusted $R^2 = .47$, $F(1, 378) = 333.20$, $p < .001$, $N = 380$. Confidence intervals are 95%. *p* values are two-tailed. Intercept not shown for brevity.

The conclusion is that the online shopping accessibility is positively and strongly correlated with practical utility of online shopping. That is, on average, for each 1 unit increase in perceived accessibility, practical utility increases by about 0.74. The confidence interval indicates this is a robust effect between .66 and .82. The very small *p* value and the large *t* statistic are good supports for this relation. By contrast, the model accounts for approximately 47 % of the variance in practical utility and exhibits a partial correlation between accessibility and practical utility, within this model (≈ 0.68).

However, in view of the strong positive relationship between accessibility and practical utility of online shopping, ease of access appears to be an important determinant of perceived usefulness in e-commerce. Recent research has demonstrated that accessibility (e.g. easy to use, mobile friendly, intuitive navigation, and platform performance) is one of the most important factors influencing consumers' satisfaction and purchase intention towards an innovative product with the Internet. For instance, Guo et al. (2023) indicated that the determinants of customer

experience and loyalty of online retail platforms are accessibility and usability. Similarly, Guo et al. (2023) proposed that better accessibility features lead to more trust and perceived value, which then leads to more engagement and repeat purchase. This finding suggests that if a business does accessibility well, they can greatly enhance the practical utility of their platforms, and thus customer retention and competitive advantage.

Online Shopping Product Variety and Practical Utility of Online Shopping

The regression analyses for the effect of online shopping product variety on online shopping utility are discussed in Table 9. The table gives the standardized regression coefficient, the standard error and *t* value and the *p* value for the predictor variable. Also present is the 95% confidence interval of the estimated coefficient and the partial correlation coefficient. A summary of the regression model is presented; it includes R^2 value, adjusted R^2 , *F*-statistic, level of significance, and total number of observations used for the analysis.

Table 9. Relationship between Online Shopping Product Variety and Practical Utility of Online Shopping

Predictor	β	SE	t	p	95% CI for β	Partial r
Shopping Product Variety	0.7343	0.0436	16.84	< .001	[0.6486, 0.8200]	≈ 0.655

Note. Model summary: $R^2 = .43$, adjusted $R^2 = .43$, $F(1, 378) = 283.66$, $p < .001$, $N = 380$. Confidence intervals are 95%. p values are two-tailed. Intercept not shown for brevity.

The findings show that the variety of products in online shopping has a strong positive effect on practical utility and is statistically significant. The perceived variety of products has a positive impact on practical utility with 0.73 units average for each unit increase. The confidence interval indicates that the true effect is likely between 0.65 and 0.82. This relationship is indicated by a large t-statistic and a very small p-value. The model accounts for about 43% of the variance of practical utility. The partial correlation is ≈ 0.655 , which indicates that in this model the product variety is strongly associated to the practical utility.

The positive association of product diversity with utility suggests that the greater the number of product options, the more useful the online shopping platform is perceived to be. This interpretation is consistent with Mofokeng (2021), who found that product variety positively influenced online shoppers' satisfaction and that customer satisfaction, in

turn, significantly influenced loyalty toward online stores.

Online Shopping Convenience, Pricing Advantage, Shopping Accessibility, Shopping Product Variety and Practical Utility of Online Shopping

Table 10 describes the outcomes of multiple regression analyzing the aggregate contribution of online shopping convenience, pricing advantage, online shopping accessibility, and shopping product variety with the practical utility of online shopping. The table contains all the predictor variables for the model, with its standardized regression coefficient, standard error, t-value, p-value, 95% confidence interval, and partial correlation coefficient. Furthermore, the table summarizes the overall regression model in terms of the coefficient of determination, adjusted R^2 , F-statistic, significance level, and the number of observations used in the analysis.

Table 10. Relationship among Online Shopping Convenience, Pricing Advantage, Shopping Accessibility, Shopping Product Variety and Practical Utility of Online Shopping

Predictor	β	SE	t	p	95% CI for β	Partial r
Shopping Convenience	0.2815	0.0485	5.80	< .001	[0.1860, 0.3769]	≈ 0.287
Pricing Advantage	0.0778	0.0523	1.49	.137	[-0.0249, 0.1806]	≈ 0.077
Online Shopping Accessibility	0.3437	0.0551	6.24	< .001	[0.2353, 0.4520]	≈ 0.307
Shopping Product Variety	0.2424	0.0601	4.03	< .001	[0.1242, 0.3606]	≈ 0.204

Note. Model summary: $R^2 = .58$, adjusted $R^2 = .57$, $F(4, 375) = 128.86$, $p < .001$, $N = 380$. Confidence intervals are 95%. p values are two-tailed. Intercept not shown for brevity.

The results indicate that Shopping Convenience, Accessibility of Online Shopping and Shopping Product Variety are significantly and positively associated with practical utility of online shopping, while Pricing Advantage is not significantly associated ($p = .137$) with practical usefulness in this combined model. Online Shopping Accessibility has the most

predictor ($\beta = 0.3437$) followed by Shopping Convenience ($\beta = 0.2815$) and Shopping Product Variety ($\beta = 0.2424$). This model accounts for approximately 58% of the variance in practical utility, indicating that the three factors have a significant cumulative effect on perceived usefulness. These results are similar. The value of 'pricing advantage'

does not appear to have a big effect. We concluded that price as a contributor to practical utility is not significant.

The overall results presented in Table 10 show that the practical utility in online shopping comprises of accessibility, convenience and variety of product and cost advantage is very little as factor when all three are used together. So it was not only the price but also the ease of access and the variety of choices that made online platforms useful. The direction is confirmed by recent research. Guo et al. (2023) have shown that usability and accessibility play a role in product satisfaction and satisfaction loyalty. Mofokeng (2021) indicates that frequent buying and variety of products are important factors that influence customer experience. Similarly, Kim (2024) pointed out that price promotions are eye-catching, but the effect reduces when consumers are more focused on the platform's convenience and easiness. This makes it possible for businesses to offer more products and to make them more available. This increases the perceived utility, while ensuring that customers remain loyal over the longer term.

Summary of Findings

Online shopping appears to be perceived as convenient, affordable, accessible, and providing various items by respondents to some extent. One of the highest points was "convenience" as many found online shopping to be convenient, easily navigated, and thus they feel more comfortable shopping than shopping at a traditional store. Advantages in price were a strong agreement as well - more often than not do individuals feel that online prices and discounts are better than the in-store prices.

This is very similar to the majority of responses where the accessibility was the top factor and most respondents felt that online shopping is accessible all the time, service never stops, and is convenient by mobile devices. In that case, variety was also cited as a major customer benefit as consumers want to shop for a variety of products and rare products as well as to search for the rare product and compare the product online.

When practical utility was considered, convenience and utility of the study is the best as well, with respondents indicating that online shopping is of a great advantage. The studies showed that perceived accessibility, convenience, and product assortment affect perceived utility significantly positively from the regression tests. Meanwhile, although pricing advantage is significant independently, when related to another factor, it also lost its power under the condition of other covariates. The analysis suggests that the functional and experiential characteristics — like ease of access, convenience, and diversity — are more important than simply price in determining whether or not online shopping sites are beneficial for the consumer in an ideal world.

Implications of the Study

And businesses that are built to improve the usability of online shopping will be more likely to focus more on accessibility, convenience and product variety. Accessibility seemed to be the strongest predictor, indicating that the platforms with 24/7 availability and mobile-friendly design significantly improved perceived usefulness. Another strong impact factor is convenience, which implies that it is easier, faster and without the time on easy to navigate functions (especially through time-saving features) is likely to contribute to increasing consumer satisfaction and engagement.

Similarly, the variety of products enhances the utility because it offers consumers more options and makes comparison easier, which consequently raises consumers overall shopping efficacy. In particular, the effect of pricing advantage would have been positive in individual analyses, but it disappeared when combined with other indicators. This would suggest that pricing advantage shares explanatory variance with the other predictors, such that its unique contribution is reduced when the variables are considered together. The mostly tech-savvy Gen Z college students can easily compare prices across platforms and might therefore give more importance to the quality and ease of the overall shopping experience. Experiential factors such as accessibility, convenience and the variety of products might have had more of an impact on

this group. The main explanation should, however, be verified by appropriate diagnostic measures such as variance inflation factor and tolerance values to confirm the multicollinearity. However, when there is a lack of accessibility, convenience and variety, pricing strategy is not able to predict perceived usefulness. Thus, companies do not have to focus only on discounts or low prices, but on an integrated approach, which means usability, wide range of products and ease of use.

The study primarily focuses on a general trend that price is not a significant determinant of consumer perception about online shopping but functional and experiential qualities account for a significant role. Consumer loyalty and long term engagement will definitely be seen more by e-commerce platforms that will work on improving accessibility and convenience but at the same time introduce more products.

Conclusion

Consumers generally perceive online shopping as convenient, affordable, easy to access and diverse. Among these factors, ease of access was the best predictor of practical utility, followed by convenience and product variety, with price advantage being less important when other factors were considered. Therefore, when judging the usefulness of online platforms, consumers take into account accessibility, convenience and wider product choice, and not just cost.

From a business perspective, the implications are that 24/7 availability; convenience and assortment, in terms of mobile compatibility and accessibility can help to increase customer satisfaction and loyalty. Competitive pricing is still important but as a complement and not substitute to improvements in usability and variety.

And the study is not without its limitations. The focus was on a specific sample and a type of data that may not be representative of all consumer segments and self-reported perceptions, which have the risk of bias by the individual. There are many other potential areas of future inquiry, from cross-demographic, cultural, to product category, so that we may consider how emerging technologies, such as AI-driven personalization

and virtual shopping experiences, can contribute to practical utility. Particularly, future studies would be valuable to investigate whether the effect of convenience, pricing advantage, accessibility, and product variety still holds for older adult consumers, who might have different degrees of familiarity with technology and shopping priorities than the Gen Z college students. Cross-cultural studies outside of Cebu City, in other regions or countries, could also find out whether differences in infrastructure, digital familiarity, and cultural purchasing norms impact the relative importance of these predictors.

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