

## A Study of Consumer Behavioral Intentions of Online Purchases

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### ABSTRACT

This study explores the impact of service quality, product quality, product freshness, and time savings on consumer behavioral intentions in online shopping, particularly in the post-COVID-19 era. With the rapid growth of e-commerce, understanding factors that influence consumer behavior is critical for businesses seeking to enhance customer loyalty. The primary objective is to identify which factors significantly affect online purchasing intentions. Using both primary and secondary data, a digital questionnaire was administered to 160 respondents. The collected data were analyzed using multiple regression analysis through IBM SPSS Statistics software to test four hypotheses. The results show that service quality ( $\beta = 0.472$ ,  $p < 0.001$ ), product quality ( $\beta = 0.217$ ,  $p = 0.001$ ), and product freshness ( $\beta = 0.212$ ,  $p = 0.002$ ) are significant predictors of behavioral intention, while time savings ( $\beta = 0.086$ ,  $p = 0.320$ ) is not. These findings highlight the importance of focusing on quality and freshness in the online marketplace. Businesses should prioritize these factors to improve customer satisfaction and loyalty. The study concludes that while time savings are often valued in online shopping, it does not significantly drive consumer intentions, making service and product excellence more critical for success in the evolving digital economy.

**Keywords:** Customer Behavioral Intentions; E-Commerce; Product Freshness; Product Quality; Service Quality

## INTRODUCTION

The Coronavirus disease 2019, commonly known as COVID-19, first hit the world with the first case identified in Wuhan, Hubei, China. On March 11, 2020, the World Health Organization (WHO) declared COVID-19 a pandemic. [Morens and Fauci \(2020\)](#) defined the COVID-19 pandemic as a plague that upended the lives of individuals globally due to its contagious nature. The pandemic has tragically resulted in over 5.3 million deaths and has created severe crises across social, economic, and political dimensions. Economists widely agree that COVID-19 has caused significant disruptions in the global economy, profoundly affecting companies and altering consumer behavior.

In response to the pandemic, all nations implemented social isolation measures, including lockdowns, to prevent the spread of the virus (Teoh et al. in [Liew et al., 2022](#)). These restrictions led to significant changes in consumer behavior, with many preferring to buy food and beverages through delivery services or purchase grocery goods online. Reports indicate that consumers increasingly opted for online purchases of goods and services during this period ([Aryani et al., 2021](#)). The fear of contracting the virus drove consumers to seek alternatives to in-store shopping, and with the advancement of digital technologies, the tendency to adjust behavioral intentions toward online purchasing has increased. Consequently, supermarkets expanded their online product offerings and introduced various delivery options to cater to the shifting preferences of consumers.

Existing studies have proven that consumer behavioral intentions regarding online purchases are influenced by several primary factors, as supported by reports from [Boyer and Hult \(2006\)](#). This study aims to identify and analyze consumer perspectives on behavioral intentions in online purchasing based on service quality, product quality, product freshness, and time savings. Understanding these behavioral intentions can empower industries to enhance their operations, benefiting not just during the pandemic but also contributing to the broader industrialization of countries. By gaining insights into these factors, businesses can effectively tailor their strategies to meet evolving consumer needs, ultimately enhancing customer satisfaction and loyalty while driving economic growth.

The shift toward online purchasing is not merely a temporary reaction to the pandemic; it reflects a broader transformation in consumer behavior driven by technological advancements and changing lifestyle preferences ([Espinoza et al., 2021](#)). As more consumers become comfortable with digital transactions, their expectations regarding service delivery, product variety, and overall shopping experience continue to evolve. Businesses must recognize that simply offering online purchasing options is insufficient; they need to provide exceptional service quality, maintain high product standards, and ensure prompt delivery to capture and retain consumer interest. This evolving landscape necessitates a comprehensive understanding of the factors influencing consumer behavioral intentions, as these insights will guide companies in designing effective strategies that resonate with their target audiences.

Moreover, the increasing reliance on e-commerce has implications for the competitive dynamics of various industries, particularly in the hospitality and tourism sectors, where consumer trust and satisfaction are paramount. As businesses pivot to meet the demands of online consumers, they face the challenge of differentiating themselves in a crowded market. Understanding the nuances of consumer behavioral intentions—such as the importance of product freshness in food delivery or the value placed on time savings—can provide critical advantages for businesses seeking to stand out. By leveraging these insights, companies can not only enhance customer engagement but

also build long-lasting relationships with consumers, ultimately leading to increased market share and profitability in the digital economy.

In light of these considerations, this study aims to fill the gap in the existing literature by providing a focused analysis of how specific factors influence consumer behavioral intentions in the context of online purchasing. The findings will offer valuable implications for stakeholders in the e-commerce sector, including marketers, business owners, and policymakers, enabling them to make informed decisions based on consumer behavior trends. Additionally, this research seeks to contribute to the academic discourse surrounding consumer behavior by offering a robust framework that can be utilized for future studies, particularly in understanding the long-term effects of evolving consumer preferences in an increasingly digital world.

Furthermore, the insights gleaned from this study are expected to illuminate the interplay between consumer behavioral intentions and the strategies adopted by businesses in the evolving e-commerce landscape. By exploring the specific factors influencing online purchasing behaviors, this research will provide a nuanced understanding of consumer motivations and preferences in the wake of the pandemic. This understanding is crucial for businesses aiming to innovate and remain relevant in a rapidly changing marketplace. As industries recover and adapt post-COVID-19, it becomes increasingly important to prioritize consumer-centric approaches that not only respond to immediate needs but also anticipate future trends. This research serves as a critical resource for stakeholders seeking to navigate the complexities of consumer behavior and build resilient business models in an uncertain economic environment.

## **LITERATURE REVIEW**

### **Consumer Behavioral Intentions**

According to the Theory of Planned Behavior (TPB), behavioral intention is a critical factor that motivates a specific behavior, with a strong correlation between the intention to act and the actual performance of the behavior (Ajzen, 2020). Ajzen emphasized that behavioral intention is the most reliable predictor of an individual's likelihood to engage in a behavior. Expanding on this, Brown and Venkatesh suggested that behavioral intention reflects a consumer's willingness to continue utilizing a function or service over time, highlighting its importance in predicting future usage. In the context of e-commerce, consumer behavioral intention serves as a powerful measure of an individual's desire to make purchases online.

The relationship between behavioral intention and customer experience is well-documented. Research by Boyer and Hult (2006) revealed that a positive customer experience is strongly linked to favorable behavioral intentions, with satisfied and experienced customers often demonstrating loyalty through repeat business and positive referrals. This connection is particularly relevant during the pandemic, which has drastically reshaped consumer behavior and accelerated the shift toward online shopping. As consumers faced restrictions on physical retail, their reliance on e-commerce surged, making it essential to examine the factors influencing their online purchasing decisions during this period.

Key drivers such as service quality, product quality, product freshness, and time savings have gained prominence in shaping consumer behavior in the digital marketplace. Understanding these factors is crucial, as they not only affect consumer satisfaction but also directly impact loyalty and long-term engagement with online platforms. This study

aims to delve into these elements, offering insights that can help businesses refine their strategies to meet evolving consumer needs. By addressing these drivers, businesses can enhance the overall customer experience, ultimately fostering loyalty in a highly competitive post-pandemic market. In this way, a deep understanding of consumer behavioral intention becomes instrumental for businesses striving to remain competitive in a rapidly changing digital landscape.

### **Service Quality**

Whether consumers engage in in-store shopping or make online purchases, service quality remains a top priority, often surpassing considerations of price or other cost factors (Boulding et al., 1999). High service quality enhances the overall shopping experience and is a key determinant of customer loyalty (Taan, 2019). When customers receive exceptional service during their first visit, they are more likely to return, solidifying their loyalty to a particular store or brand. This phenomenon, known as consumer loyalty, emphasizes the importance of consistently maintaining high service standards, whether in physical retail environments or e-commerce platforms.

In the context of e-commerce, however, the nature of service quality undergoes a significant shift due to the different modes of interaction between consumers and businesses (Kaynama & Black, 2000). Unlike in-store shopping, where personal interactions and in-person assistance play a critical role, e-commerce service quality hinges on the efficiency, reliability, and convenience of online processes, such as website navigation, payment systems, and delivery services (Zeithaml et al., 1996). Consequently, consumers' expectations for service quality differ between these two shopping environments. While physical stores rely on interpersonal interactions, e-commerce platforms must focus on delivering seamless, fast, and user-friendly online experiences to meet consumer expectations.

Moreover, as new customers venture into online shopping, particularly those unfamiliar with digital commerce, the learning curve can shape their perceptions of service quality. For these individuals, the experience is not solely about the product but also about how easily they can navigate the online shopping process. Service quality in e-commerce includes aspects like website functionality, customer support availability, delivery reliability, and the overall user experience. New users often compare these experiences with traditional in-store shopping, highlighting the importance of a smooth digital experience in fostering trust and loyalty (Felix & Rembulan, 2023).

Prior research has shown that poor service quality can lead to negative consumer behaviors, such as complaining, switching to competitors, and disengagement (Zeithaml et al., 1996). In contrast, superior service quality positively correlates with customer loyalty and behavioral intentions, including a greater willingness to pay more for better services. Therefore, service quality not only affects immediate satisfaction but also has long-term implications for customer retention and brand loyalty.

For businesses aiming to compete in a crowded and increasingly digital marketplace, understanding the nuances of service quality in both physical and online settings is crucial. Effective service quality management leads to higher levels of customer satisfaction, increased loyalty, and positive word-of-mouth, all of which are critical for attracting and retaining customers. As consumers grow more comfortable with digital transactions, businesses must continually evolve their online service offerings to meet rising expectations. Key factors like personalized customer experiences, timely responses to inquiries, and seamless interactions are essential in shaping positive consumer perceptions of service quality.

Organizations that prioritize these elements in their service delivery strategies are likely to see a stronger relationship between service quality and customer loyalty (Nguyen et al., 2020). By delivering high-quality service, businesses can not only retain existing customers but also attract new ones through positive customer reviews and referrals. As a result, this study proposes the following hypothesis:

H1: Service quality is positively related to consumer behavioral intentions

### **Product Quality**

Product quality plays a fundamental role in purchasing decisions, often rivaling or even surpassing the importance of service quality, particularly in shaping consumer satisfaction and loyalty. Zhao et al. (2021) highlighted that the value of a product is determined by a balance between its price and quality. In traditional in-store shopping, assessing product quality is relatively straightforward because consumers can physically examine the item, enabling them to gauge various attributes such as texture, appearance, and functionality. However, in the realm of e-commerce, product evaluation becomes more complex due to the absence of tactile interaction. Online shoppers must rely on digital descriptions, images, and reviews, which may not always convey the true quality of the product.

Koch and Cebula (2002) identified four categories of products where consumers' perception of quality can significantly vary: items requiring sensory interaction (smell, touch, taste), products requiring custom fitting, goods sold through catalogs, and those accompanied by professional advice. This variability in quality perception is especially pronounced for items like clothing and groceries, where the inability to physically inspect products leads to misperceptions. For example, online garment purchases may disappoint consumers who cannot assess fabric quality or fit, and grocery items may fall short in terms of freshness or appearance.

Further compounding this challenge, Walsh and Mitchell (2010) suggest that a consumer's perception of product quality directly impacts their satisfaction and loyalty to the brand or retailer. If the product quality meets or exceeds expectations, consumers are more likely to feel happy and exhibit positive behavioral intentions, such as repeat purchases and brand advocacy (Sumarlinah et al., 2022). Conversely, if the quality fails to meet their expectations, it may lead to dissatisfaction, reduced loyalty, and a negative impact on future purchasing decisions. Therefore, understanding how product quality is perceived in online shopping environments is essential for businesses aiming to build long-term customer relationships and enhance behavioral intentions.

Thus, this study hypothesizes:

H2: Product quality is positively related to consumer behavioral intentions.

### **Product Freshness**

Product freshness is a critical determinant influencing purchasing decisions, especially in the context of online shopping. While freshness is always a consideration for consumers, its significance varies depending on the type of product being purchased. Boyer and Hult (2006) highlighted that freshness plays a distinct role when comparing packaged goods to perishable items. Packaged goods—such as canned, frozen, or pre-processed products—tend to evoke less concern about freshness, as their shelf stability is often a selling point. For these items, price typically becomes the primary differentiator across platforms, as consumers feel confident about their durability and long-lasting



quality. In contrast, for fresh products like fruits, vegetables, meats, and seafood, freshness becomes paramount, influencing not only the purchasing decision but also the perceived value and satisfaction post-purchase.

The sensitivity to product freshness in online shopping environments is magnified for fresh goods. Tsiros and Heilman (2005) have documented that freshness is a major concern for consumers when buying perishable products online, where they cannot physically inspect the goods before purchasing. This uncertainty creates a higher level of risk for the consumer, making freshness a key factor that can sway their decision to either buy or avoid certain products online. Without the ability to personally evaluate the freshness, customers rely heavily on the reputation of the vendor, product descriptions, and third-party reviews, all of which become critical elements of trust in the e-commerce environment.

Interestingly, while product freshness is often viewed as an essential factor, previous studies by Cardello and Schutz (2003) suggest that freshness, though important, is frequently considered alongside other factors like taste, nutritional value, and price. In certain cases, taste or nutritional benefits might take precedence, with freshness being equally weighted with factors such as price, particularly for products where freshness is not immediately perceptible (e.g., packaged or processed goods). This finding underscores the complexity of consumer decision-making, where multiple attributes of a product interact to influence overall satisfaction and behavioral intentions.

However, the importance of freshness varies depending on the product category, as Tsiros and Heilman (2005) demonstrated in their research on how shelf life affects purchasing behavior. Their study found that consumers exhibit differing levels of concern for freshness depending on the type of product and their past experiences with it. For example, in the case of short-shelf-life items like dairy products, bread, and certain fresh produce, consumers are more likely to check expiration dates or inquire about the time since harvest or packaging. This heightened sensitivity often leads consumers to make more frequent purchases to ensure they receive the freshest products possible. On the other hand, for items with longer shelf lives, such as certain packaged or frozen foods, consumers tend to be less concerned about freshness and more focused on factors like price or brand reputation.

In online purchases, where the freshness of a product cannot be directly evaluated, consumer trust in the retailer's ability to deliver high-quality, fresh products becomes even more important. Many consumers are willing to pay a premium for guaranteed freshness, especially for highly perishable items. Additionally, the packaging and delivery process in e-commerce plays a vital role in preserving product freshness, which in turn affects consumer satisfaction. Innovations in packaging and logistics that enhance freshness, such as temperature-controlled deliveries or same-day shipping for fresh items, can significantly boost consumer confidence and increase the likelihood of repeat purchases.

Given the critical role of freshness in shaping consumer behavior, particularly for perishable goods, businesses must prioritize ensuring that their products maintain a high standard of freshness, especially in the e-commerce space. Freshness, along with product quality and timely delivery, can enhance the overall customer experience, fostering loyalty and encouraging positive word-of-mouth recommendations.

Therefore, this study proposes the following hypothesis:

H3: Product freshness is positively related to consumer behavioral intentions.

### **Time Savings**

Undoubtedly, in today's fast-paced world, people increasingly prefer online shopping due to its various advantages, with one of the most significant benefits being time savings. Time has become a valuable and often scarce resource for many consumers, particularly those balancing demanding work schedules, family commitments, and other obligations. The convenience of shopping online allows them to bypass the time-consuming aspects of traditional in-store shopping, such as commuting, parking, waiting in lines, and navigating crowded stores. This need for efficiency has made time savings a critical factor influencing the decision to shop online.

Research has consistently shown that time-starved consumers are drawn to the convenience of online shopping. [Donthu and Garcia \(1999\)](#) demonstrated that those with busy, hectic lives actively seek alternatives to optimize their limited free time, and online shopping offers a solution by streamlining the purchasing process. The ability to shop at any time, regardless of store hours, and the efficiency of browsing, comparing, and purchasing items with just a few clicks have made online shopping an attractive option for those looking to maximize their time.

In line with this, [Jensen \(2012\)](#) introduced the concept of "buying time," which refers to the perception consumers have when shopping online. When consumers make online purchases, they feel as though they are gaining back time that would otherwise be spent on traditional shopping activities. This perception has become a key driver of online shopping behavior, as the convenience of saving time enhances the overall appeal of e-commerce. Consumers view the time saved from online shopping as an opportunity to focus on other important activities, whether work, family, or leisure.

Changing lifestyles have also amplified the importance of time savings. As [Peña-García et al. \(2020\)](#) highlighted, modern consumers face increasing challenges in finding time for in-store shopping due to various social factors, such as longer working hours, increased urbanization, and the growing demands of family life. For many, the ease of shopping from home or on the go through mobile devices offers a practical solution to these time constraints. [Peña-García et al. \(2020\)](#) further emphasized that as long as online shopping continues to offer significant time savings, consumers will remain loyal to the digital marketplace, making time efficiency a cornerstone of e-commerce's appeal.

Moreover, consumers tend to become more efficient with online shopping as they gain experience. In a study by [Ellis \(2003\)](#), it was noted that while consumers may spend around 70 minutes placing their first online order due to unfamiliarity with the platform or process, this time decreases significantly as they become accustomed to online shopping. With repeated use, consumers can reduce the time spent on online purchases to approximately 30 minutes. This sharp reduction in time highlights the learning curve associated with online shopping and suggests that time savings improve even further over time as consumers become more comfortable with digital interfaces, search functions, and streamlined payment options.

The cumulative effect of these time-saving benefits not only attracts consumers but also fosters long-term behavioral intentions toward online shopping. As consumers experience the time efficiencies offered by e-commerce, their preferences shift, making them more likely to choose online platforms for future purchases. This connection between time savings and consumer loyalty is particularly relevant in an era where convenience is highly valued. The ability to save time enhances customer satisfaction,

which, in turn, strengthens their likelihood of returning to the platform for future purchases, contributing to the growth of e-commerce businesses.

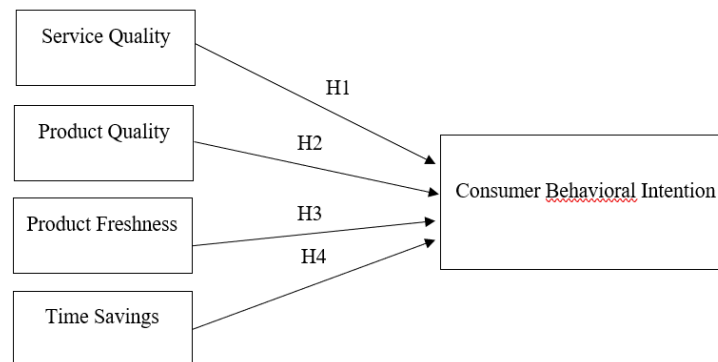
Additionally, time savings are often closely linked to other factors that enhance the overall online shopping experience, such as ease of use, fast delivery services, and personalized recommendations. The combination of these factors further amplifies the perceived efficiency of online shopping, making it a compelling choice for time-conscious consumers. Businesses that prioritize these aspects and continue to improve their time-saving features, such as one-click purchasing, same-day delivery, or subscription-based services, will likely see a positive impact on customer retention and brand loyalty.

Given the growing importance of time savings in shaping consumer behavior, this study posits the following hypothesis:

H4: Time savings are positively related to consumer behavioral intentions.

Figure 1 illustrates the research framework. A total of four hypotheses were formulated based on past literature reviews.

**Figure 1. Research Framework**



## RESEARCH METHOD

### Sample and Procedure

In order to collect the data and information from the public, the researchers constructed a digital questionnaire by using Google Forms and distributed it through social media such as Telegram and WhatsApp in the middle of November 2022. In addition, by distributing the digital questionnaire through social media, the spread of the Coronavirus can be avoided. The target respondents were university students all around the world as they were Generation Z, and they had more experience in using online purchases. Through this online survey, 160 responses were obtained and have been analyzed using IBM SPSS Statistics software to determine the variables' significance and dependency. The researchers also ensured that the questionnaire was designed to be user-friendly and engaging, which encouraged higher response rates among participants. Furthermore, the demographic diversity of the respondents allowed for a more comprehensive analysis of consumer behavior across different cultural contexts. This approach provided valuable insights into how various factors influence online purchasing intentions within this tech-savvy generation.

### Measures

This research study was adopted by Boyer and Hult (2006). The Google Forms questionnaire has two sections which include (Section A) Demographic profile and (Section B) Questions related to the topic. This section has been categorized into 4 parts



that are related to the primary factors that influence consumer behavioral intentions of online purchases: (Part 1) Service quality, (Part 2) Product quality, (Part 3) Product freshness, and (Part 4) Time savings. The researchers have applied a total of 20 items and each part involves 5 questions to test the agreeableness of the respondents. In part 1, the questions include "Consumers will pay more attention to the service quality of online purchases" to test the service quality of online purchases. In part 2, measures such as "It is more likely to get good quality of products when using online purchases" are used to measure the product quality of online purchases. In part 3, questions such as "The products bought from online purchases are fresher compared to offline shopping" are applied to test the product freshness of online purchases. Lastly, in part 4, items including "Online purchases are time savings" are to test the time savings of online purchases. The researchers have applied the five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) to observe the agreeableness of the respondents.

## RESULTS

**Table 1.** Respondent Profile's Summary (N=160)

Response	Frequency	Percentage (%)
<b>Gender</b>		
Male	98	61.3
Female	62	38.7
<b>Ethnicity</b>		
Malay	45	28.1
Chinese	71	44.4
Indian	21	13.1
Others	23	14.4
<b>Nationality</b>		
Malaysian	124	77.5
China	3	1.9
Indonesia	33	20.6
<b>Year of Study</b>		
Year 1	33	20.6
Year 2	104	65
Year 3	16	10
Year 4	6	3.8
Others	1	0.6
<b>Study Field</b>		
Arts	100	62.5
Science	32	20
Others	28	17.5

The respondents' demographic profile is summarized in Table 1 and a total of 160 respondents were obtained in this study. According to Table 1, 61.3% of the respondents are male and 38.7% of the respondents are female. Besides, the majority of respondents are Chinese (44.4%), followed by Malay (28.1%), Indian (13.1%), and others (14.4%) including the Jawannese, Arabian, and Javanese. Moreover, most of the respondents are Malaysian, which is 77.5% of the total respondents, and the rest of them are from China and Indonesia. As this study only focuses on university students all around the world, most of them are studying in Year 2 (65%), while the rest are studying in Year 1 (20.6%), Year 3 (10%), Year 4 (3.8%), and 1 of them is currently studying in Year 2.5 (0.6%). Lastly, of 160 respondents, most of them study in the arts stream (62.5%), 20% of them study in the science stream, and the others study in the business-related field.

The summary of the respondents' demographic profile then allows the researcher to have a deeper understanding of their behavioral intentions for online purchases.

**Table 2.** Descriptive Statistics, Zero-order Correlations of All Study Variables, and Cronbach's Coefficient Alpha

Variables		1	2	3	4	5
1.	Service Quality	0.644				
2.	Product Quality	0.749**	0.622			
3.	Product Freshness	0.757**	0.716**	0.611		
4.	Time Savings	0.699**	0.646**	0.747**	0.757	
5.	Consumer Behavioral Intentions	0.401**	0.329**	0.495**	0.610**	.893
Number of Items		5	5	5	5	5
Standard Deviation		4.155	40.113	40.109	40.090	40.202
Mean		.426	0.499	0.390	0.435	0.573

Note: N=150; \*p<0.05, \*\*p<0.01, \*\*\*p<0.001. Diagonal entries in bold indicate Cronbach's Coefficient Alpha

**Table 2** highlights the descriptive statistics, Cronbach's coefficient alpha, and zero-order correlations of the primary factors that influence consumer behavioral intentions of online purchases. There were four items consisting of the scale, and each item represents the primary factors, namely service quality, product quality, product freshness, and time savings. According to Table 2, all factors persevered greater than 0.60, and all variables were tested by Cronbach Alpha. From **Table 2**, the Cronbach Alpha for service quality, product quality, product freshness, time savings, and consumer behavioral intentions were 0.644, 0.622, 0.611, 0.757, and 0.893 respectively. This indicates that the items for all the variables have high internal consistency and are considered reliable. Additionally, the high values of Cronbach's alpha suggest that the scales used in this study are appropriate for measuring the intended constructs, providing a solid foundation for further analysis. The strong correlations observed among the factors also reinforce their interconnectedness, emphasizing the importance of each variable in shaping consumer behavioral intentions.

**Table 3.** Summary of Multiple Regression Analysis

Variables		Behavioral Intention	p-value
1.	Service Quality	0.472***	0.000
2.	Product Quality	0.217**	0.001
3.	Product Freshness	0.212**	0.002
4.	Time Savings	0.086	0.320
R <sup>2</sup>		0.926	
F-Value		485.337	
Durbin-Watson Statistic		1.734	

Note: N=150; \*p<0.05; \*\*P<0.01; \*\*\*P<0.001

**Table 3** presents the results of the multiple regression analysis, examining the relationship between various independent variables—Service Quality, Product Quality, Product Freshness, and Time Savings—and the dependent variable, Behavioral Intention. The analysis shows that the model explains 92.6% of the variance in behavioral intention ( $R^2 = 0.926$ ), which indicates a strong model fit. The F-value of 485.337, along with a significant p-value ( $p < 0.001$ ), confirms the overall significance of the regression model.

Service Quality (H1: Service quality is positively related to consumer behavioral intentions) emerges as the most significant predictor, with a beta coefficient of 0.472 ( $p$

< 0.001). This finding strongly supports H1, demonstrating that service quality has a highly positive and statistically significant effect on behavioral intention. Consumers who perceive higher service quality are more likely to engage in positive behavioral intentions, such as repeat purchases and brand loyalty.

Product Quality (H2: Product quality is positively related to consumer behavioral intentions) also has a significant positive relationship with behavioral intention, with a beta coefficient of 0.217 ( $p = 0.001$ ). This supports H2, showing that higher product quality influences consumer behavioral intentions positively. When consumers believe the product quality is high, they are more likely to make purchases and exhibit loyal behavior.

Product Freshness (H3: Product Freshness is positively related to consumer behavioral intentions) is similarly important, with a beta coefficient of 0.212 ( $p = 0.002$ ), indicating a positive and significant relationship. This supports H3, confirming that consumers place importance on product freshness, especially when purchasing perishable goods. Fresher products enhance the likelihood of positive consumer behaviors, such as repeat purchases.

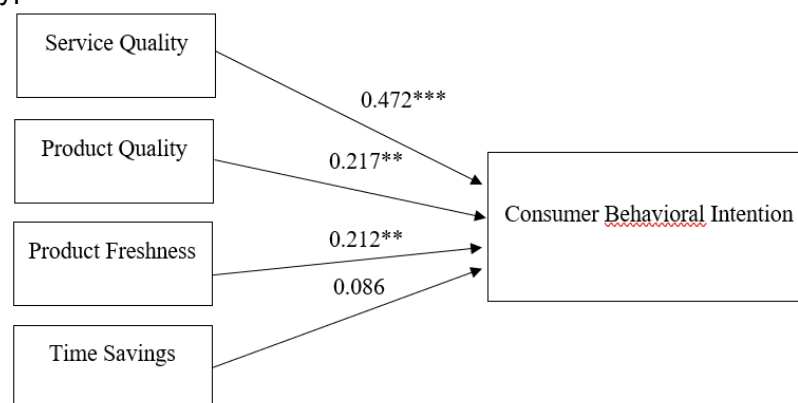
However, Time Savings (H4: Time savings are positively related to consumer behavioral intentions) does not show a statistically significant impact on behavioral intention, with a beta coefficient of 0.086 and a  $p$ -value of 0.320. This result does not support H4, suggesting that while time savings are a perceived benefit of online shopping, they may not directly influence consumer behavioral intentions as strongly as other factors such as service quality, product quality, or freshness.

The Durbin-Watson statistic of 1.734 indicates that there is no severe autocorrelation in the residuals, suggesting that the regression model's assumptions are met.

In summary, the results confirm that service quality, product quality, and product freshness significantly influence consumer behavioral intentions, while time savings do not appear to have a substantial effect in this context. This insight is crucial for businesses aiming to enhance customer loyalty, as they should prioritize improving service and product quality, along with ensuring product freshness, rather than focusing solely on time-saving measures.

Figure 2 draws the hypothesized model of this study.

**Figure 2.** Hypothesized Model



Note: \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

## DISCUSSION

In this study, the researchers have investigated the elements that impact consumer behavioral intentions of online purchases. Moreover, the researchers have further proved that service quality, product quality, and product freshness significantly influence consumer behavioral intentions of online purchases, while time savings indirectly impact consumer behavioral intentions. Thus, the researchers concluded that three out of four primary factors (service quality, product quality, and product freshness) were acknowledged as consequential in affecting consumer behavioral intentions to use online purchases. Additionally, these findings highlight the importance of understanding consumer preferences in the e-commerce landscape, especially in the hospitality and tourism sectors. By focusing on these key factors, businesses can enhance their online offerings and improve customer satisfaction, ultimately driving higher sales and fostering long-term loyalty among consumers. Furthermore, adapting to emerging trends and technological advancements will be essential for businesses to remain competitive. Continuous evaluation of consumer feedback can also help refine strategies and ensure that services meet evolving expectations.

### Service Quality

From the observation above, service quality was the most significant factor affecting consumer behavioral intentions to use online purchases whenever they have the intention to buy something via online shopping platforms. In order to have the same experience as in-store shopping, businesses should always be mindful of their service quality as the results have shown that consumers are looking into the service quality of online purchases nowadays. Thus, businesses are recommended to have premium services if one is willing to pay more to receive better service quality. Previous studies have proven that consumers who wish to receive better service and access to all features can upgrade to a premium version (Anderson et al., 2008). Some of the premium services that a business can provide are faster delivery services and provide insurance to ensure security and discounts. By providing premium services, businesses are more likely to retain consumer loyalty as they are willing to pay more to receive better service. Additionally, incorporating customer feedback can help businesses identify areas for improvement, ensuring that their premium services remain aligned with consumer expectations. Ultimately, a focus on quality service will enhance overall customer satisfaction and drive repeat purchases.

### Product Quality

Product quality was the second most decisive factor influencing consumer behavioral intentions, as consumers are hoping to receive the same good quality products, just like what they have received while in-store shopping. Due to the nature of online purchases, consumers are unable to see the appearance of the product; not to mention, they cannot touch the products physically. Hence, businesses need to ensure that consumers will receive good quality products, as good quality products are deemed to fulfill the satisfaction of a consumer the most (Ongkowijoyo, 2022). Nevertheless, it is undeniable that online shopping is the new trend of shopping for the past century. Thus, it is crucial for businesses to maintain the quality of products that will be illustrated in online shopping purchases. Last but not least, consumers always expect to receive good quality products as these are the rights of consumers. To address this challenge, businesses can implement detailed product descriptions, high-quality images, and customer reviews to enhance transparency. By doing so, companies can build trust and help consumers make informed purchasing decisions, ultimately leading to greater customer satisfaction. Additionally, utilizing effective return policies and responsive customer service can further reassure consumers about their online shopping experiences. This

comprehensive approach will encourage repeat purchases and foster long-term loyalty to the brand.

### **Product Freshness**

Product freshness was the last factor that significantly affected consumer behavioral intentions. In fact, product freshness is as important as product quality because consumers have the perception that a good product must be fresh and tasty. Thus, it is crucial for businesses to maintain the freshness of the products as it will directly influence the consumer's taste and experience (Font-i-Furnols & Guerrero, 2014). In return, if the consumers receive a fresh product, they will increase consumption and thereby build brand loyalty. Hence, businesses are suggested to implement a customer order management (COM) system to coordinate the orders of the customers. Through this approach, businesses are able to determine which order should be fulfilled so that the consumers can receive fresh products in the first place. It will also strengthen the relationships with the customers, not only coordinate supply chains. Lastly, product freshness is always tied up with food safety issues. So, businesses should be aware of product freshness as it will directly affect one's health. By ensuring freshness, companies can enhance customer satisfaction and reduce the likelihood of complaints related to product quality, ultimately fostering a positive shopping experience. Moreover, leveraging technology, such as inventory tracking systems, can further improve the ability to monitor product freshness and prevent spoilage. This proactive approach will not only safeguard consumer health but also contribute to a brand's reputation for quality and reliability in the market.

### **Time Savings**

Although time savings was not the significant factor influencing consumer behavioral intentions, it does play an important role in online purchases, as most consumers choose to use online purchases to save time. Despite that, previous studies have stated that time savings are relatively unimportant compared to the importance of product freshness (Boyer & Hult, 2006). However, undeniably, time savings are more important when the consumers are based on store grocers. Even if time savings are not the significant factor affecting consumer behavioral intentions, businesses should not avoid this factor by dragging the delivery time but rather focus on decreasing the delivery time. Efficient delivery processes can enhance the overall customer experience, as consumers increasingly value convenience in their shopping experiences. By optimizing logistics and minimizing delays, businesses can better align their services with consumer expectations, leading to improved satisfaction and potentially influencing future purchase decisions. Additionally, effective communication about delivery timelines can help manage consumer expectations and build trust in the brand.

## **CONCLUSION**

The findings of this study successfully meet the primary objectives by demonstrating that service quality, product quality, and product freshness are significant factors influencing consumer behavioral intentions in online purchases, while time savings are not as impactful. The analysis of the four hypotheses confirms that service quality, product quality, and product freshness have direct and significant effects on shaping consumer intentions to shop online. These results underscore the importance of focusing on these elements to build consumer trust and encourage repeat purchases, which are essential for fostering customer loyalty in the e-commerce sector.

Service quality, in particular, plays the most critical role, as it significantly influences consumer behavioral intentions. Businesses that prioritize delivering exceptional service,



whether through seamless online interactions, efficient customer support, or reliable delivery processes, are likely to experience stronger customer loyalty. Similarly, maintaining high product quality is vital, as it assures consumers that the goods they purchase online meet or exceed expectations. Product freshness, especially for perishable goods, remains a critical factor that directly influences purchasing decisions. Companies that can consistently deliver fresh, high-quality products will cultivate consumer trust and satisfaction.

On the other hand, while time savings are often cited as a benefit of online shopping, this study indicates that time savings alone does not have a direct impact on consumer behavioral intentions. Consumers may appreciate the convenience of online shopping, but it is the quality of service and products that ultimately drive their decisions. As such, businesses should not rely solely on the convenience factor but instead focus on ensuring that their offerings meet the highest standards of service and product excellence.

In light of these results, businesses must adapt to the changing consumer landscape, particularly as the world continues to recover from the COVID-19 pandemic. The pandemic has accelerated the shift towards online shopping, and consumers are now more reliant than ever on digital platforms for purchasing goods and services. As such, companies must invest in enhancing their online presence, ensuring that their platforms are user-friendly, efficient, and capable of delivering high-quality service and products. Additionally, businesses should leverage digital marketing strategies and customer engagement initiatives to reach and retain their target audiences effectively.

Furthermore, the results emphasize the potential of the e-commerce sector to contribute significantly to economic growth, particularly in regions where online retail continues to expand. By investing in e-commerce platforms and prioritizing the factors that directly influence consumer behavioral intentions—service quality, product quality, and product freshness—businesses can enhance customer satisfaction, drive sales growth, and remain competitive in an increasingly digital marketplace.

In conclusion, businesses must continuously evolve and align their strategies with consumer expectations and technological advancements. By doing so, they will be well-positioned to thrive in the rapidly changing digital economy, ultimately contributing to long-term success and sustainability.

## **LIMITATIONS**

Nonetheless, this research has several limitations to be noted. Firstly, the distribution of the questionnaire did not reach different age groups, and most of the respondents are students from Generation Z. This is due to the data collection being done using Google Forms and spread via social media platforms, which are Telegram, WhatsApp, and Instagram. This limitation, therefore, may lead to low generalizability. Hence, the researchers would recommend that further researchers should increase the sample size by reaching out to different age groups.

In addition, this study only focuses on the primary factors, which are service quality, product quality, product freshness, and time savings. Thus, future studies should include some of the external factors, such as geographical factors, delivery methods, and delivery charges, to have a profound knowledge of the correlations between the variables. Furthermore, exploring consumer preferences in various contexts, such as seasonal trends or economic fluctuations, could provide deeper insights into how these

factors impact online shopping behavior. This comprehensive approach will enhance the understanding of consumer behavior in e-commerce.

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#### DECLARATION OF CONFLICTING INTEREST

The authors declare that there is no conflict of interest.

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