

# Customer Preference Factors Affecting e-Groceries Purchase Intention in Indonesia

Aiman Yamanie<sup>1</sup> and Elliot Simangunsong<sup>2</sup>

<sup>1</sup>Faculty of Business, LSPR Institute of Communication and Business, Jakarta, Indonesia

<sup>2</sup>Prasetiya Mulya University, Jakarta, Indonesia

## ABSTRACT

The COVID-19 pandemic in 2020 led to social distancing measures, self-quarantines, and isolations worldwide, which made it impossible for physical stores to operate. As a result, retailers had to shift their focus to online sales to mitigate financial losses, as they faced billions in lost revenue and a rise in unemployment within the service industry. In light of these extraordinary circumstances, the online grocery ordering system, which facilitates communication between businesses and their customers, has become essential. Despite ongoing challenges such as significant annual financial losses and restrictions on customer proximity, online ordering has helped safeguard their businesses. The App User Interface has an impact on Logistic Service Quality by enabling customers to select a delivery mode seamlessly. Product information, including price, distance, and delivery method, also affects the quality of logistic services. Furthermore, it is found that logistic service quality influences the perceived convenience of online shopping and that the perceived convenience of online shopping influences purchase intention.

**Keywords:** logistic service quality; perceived convenience of e-groceries ordering; product information; app user interface; purchase intention

## INTRODUCTION

The surge in orders, interruptions in the supply chain, alterations in customer behavior, store closures, and other effects stemming from the COVID-19 pandemic will undoubtedly influence different types of online commerce (Akram et al., 2021). The pandemic has greatly impacted digitalization, customer experiences, and well-being in mobile commerce. Since the beginning of the pandemic, there has been a significant increase in online sales and the number of consumers using internet-enabled devices (Akram et al., 2021). This paper presents a quantitative analysis that explores the effects of COVID-19 and internet commerce on customers' purchasing experiences during the pandemic. Utilizing survey data, the study examines how the app's user interface, product information, and logistics service quality affect purchase intentions during the COVID-19 crisis.

**Table 1. Population Composition based on generation**

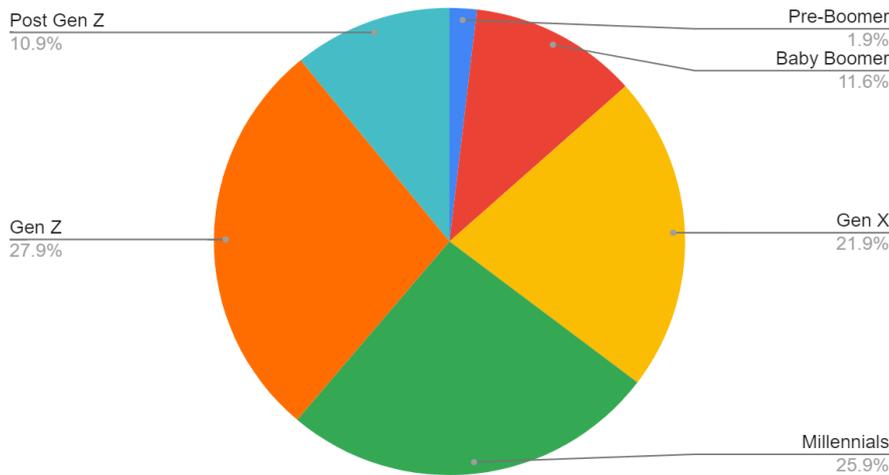
Generation	Composition	Birth Year Range	Current Age in 2021
Pre-Boomer	1.87%	<1945	>75
Baby Boomer	11.56%	1946 - 1964	56 - 74
Gen X	21.88%	1965 - 1980	40 - 55

Millennials	25.87%	1981 - 1996	24 - 39
Gen Z	27.94%	1997 - 2012	8 - 23
Post Gen Z	10.88%	> 2012	<7

Source: Adapted from Badan Pusat Statistik (2022)

Retailers are facing significant challenges due to the expectations of millennials and post-millennials. Millennials are now regarded as financially mature, with the majority being 30 years old or older. In 2020, Indonesian millennials accounted for 25.87% of the total population, making them the second largest demographic group after Generation Z (Badan Pusat Statistik, 2021).

**Figure 1. Population Composition of Indonesia in 2020**



Source: Adapted from Badan Pusat Statistik (2021)

While numerous prior studies have demonstrated some effectiveness in improving consumers' purchasing intentions and behaviors, there is a lack of research on how the visual attractiveness and informativeness of menus affect consumers' intermediate states and their intentions to buy (Brewer & Sebby, 2021). In particular, there have been very few investigations into how online restaurant menus influence consumers' cravings for food, their perception of the convenience of online food ordering, and their purchase intentions during a stressful pandemic (Brewer & Sebby, 2021).

The objective of this research is to identify the factors that directly influence purchase intention. In this context, we seek to test the hypotheses regarding whether the app's user interface, product information, logistics service quality, and the perceived convenience of online grocery ordering positively influence purchase intention. The results of this research are intended to reveal how these variables affect purchase intention, enabling companies to optimize their strategies.

The shift to online shopping is undeniable, and retailers must adapt to serve customers online. The COVID-19 pandemic accelerated this trend, forcing store closures and changing consumer behavior. Customers stayed away, and sales plummeted. The COVID-19 pandemic's effects are visible in all areas of everyday life, and most of them have been gradually accepted into the new daily life, becoming the "new normal" (Nusifera et al., 2020). These changes have become part of the "new normal," where people increasingly rely on mobile devices for shopping from

home. The integration of the internet and mobile communications has transformed e-commerce into mobile commerce. In this paradigm, we use the “new normal” concept, reflecting the new habits developed during and under the pandemic, which put pressure on the need to shop with mobile devices from home instead of going to the store. The wireless telecommunication explosion revealed amazing possibilities for the powerful convergence of the Internet and mobile communications in business and trade, whereby e-commerce evolves into mobile commerce (Akram et al., 2021).

The rise of mobile e-commerce apps, driven by the new normal, has changed how we view customer satisfaction. For instance, Hassanein & Head (2007) highlight that the design and usability of an app's interface are crucial for keeping customers happy. Meanwhile, research by Chung et al. (2006) emphasizes the importance of providing detailed product information. On the other hand, Saura et al. (2008) argue that the quality of logistics services is key to successful e-commerce, influencing factors like repeat purchases and customer loyalty.

### **Apps User Interface**

In their study, Nusifera et al. (2020) identified several factors that can influence customer satisfaction with online purchases, including the quality of information, user interface design, the application's features that benefit consumers, response time (application speed), security, payment options, delivery, and customer service. Additionally, Brewer & Sebby (2021) noted that interface design can incorporate social presence through rich descriptions and images, which can enhance perceived utility, trustworthiness, and enjoyment of a commercial website, ultimately leading to more positive perceptions of the online store.

In online retail, where customers can't physically interact with products, having appealing visual representations is crucial to attract them. Retailers rely heavily on product images to connect with consumers. These images play a significant role in increasing consumers' desire to buy, their enjoyment, and their trust in online shopping (Hassanein & Head, 2007). With the rise of platforms like Twitter and Instagram, research has shown that high-quality, professional photos enhance consumer engagement with social media content (Li & Xie, 2020).

The design of apps and websites covers every part of a user's experience on the platform, except for customer service. This includes how easy it is to navigate, find information, process orders, personalize the experience, and choose products (Wolfenbarger & Gilly, 2003). Earlier studies have emphasized that website design plays a crucial role in shaping how customers perceive service quality (Zeithaml et al., 2002). Kassim & Abdullah (2010) found a positive link between service quality and customer satisfaction, considering factors like ease of use, website design, responsiveness, personalization, and assurance. Furthermore, Pappas et al. (2018) identified visual design as the most important aspect of e-service quality, highlighting four elements of visual aesthetics such as simplicity, diversity, colorfulness, and craftsmanship that affect user behavior when browsing online. Therefore, the app's user interface could hypothetically impact purchase intention.

### **Product Information**

Product descriptions are key communication tools for educating clients about the products or foods offered. Existing research has examined in depth two key domains pertaining to menu item descriptions, it's important to consider the information included and how these

descriptions influence customers' feelings and sales. Research has consistently shown that consumers want to see details about nutritional content, ingredients, and how the food is prepared on the menu. Additionally, studies have indicated that providing accurate descriptions of menu items can positively impact customers' food choices and boost restaurant sales (Brewer & Sebyy, 2021).

**Logistic Service Quality**

According to Simangunsong & Subagyo (2021), three key factors significantly and positively impact the sales and revenue of retailers: the pricing of delivery time slots, the allocation of dedicated resources for fulfillment, and the logistics strategy; finally, how effectively retailers can present their products from all fulfillment sources (stores/warehouses) to potential customers. These factors are directly related to the behavior of millennials, who place a high value on the speed of fulfillment and product availability as criteria for their satisfaction, as noted by Wang et al. (2015) and referenced by Simangunsong (2018). Therefore, it is believed that ensuring timely order fulfillment is a crucial strategy for retailers aiming to attract and retain mature millennials in Indonesia.

Many studies on logistics service quality have focused on exploring the relationship between logistics service quality, customer satisfaction, and customer loyalty. Researchers like Mentzer et al. (2001) have highlighted the beneficial impact of logistics service quality on customer satisfaction, recommending that companies customize their logistics services to meet the varied needs of different customer groups. Saura et al. (2008) pointed out that logistics service quality—which includes aspects like timeliness, personnel, information, and order quality and significant effect on customer satisfaction. Additionally, research has shown that customer satisfaction with logistics services greatly influences customer loyalty and market share (Stank et al., 2003). Bienstock and Royne (2010) found that industrial customers consider logistics service quality a key factor in their satisfaction with these services. For instance, the quality of personal interactions positively affects customer satisfaction and purchasing behavior (Bode et al., 2011).

A summary of previous research is presented in the table below:

**Table 2. Previous Research Summary**

Component	Sub-Com	Ref	Surv	Log.SQ	Perc.Conv
Apps User Interface	Product photos	Hassanein and Head (2007), Li and Xie (2020)			
	apps navigation	Wolfenbarger & Gilly (2003)			
	information search	Wolfenbarger & Gilly (2003)			
	order processing	Wolfenbarger & Gilly (2003)			
	appropriate personalization	Wolfenbarger & Gilly (2003)			

	product selection	Wolfenbarger & Gilly (2003)			
Product information	quality of information	1. Nusifera., et al. (2020) 2. Brewer & Sebby (2021)		X (2)	
	application capability in terms of features that are beneficial to consumers	Nusifera., et al. (2020)			
	response time (speed of the application)	Nusifera., et al. (2020)			
	security	Nusifera., et al. (2020)			
	payment	Nusifera., et al. (2020)			
	delivery	Nusifera., et al. (2020)			
	customer care service	Nusifera., et al. (2020)			
Logistic Service Quality	time slot price of delivery	Simangunsong & Subagyo (2021)			
	dedicated resources (personnel) for the fulfillment and logistic strategy.	Simangunsong & Subagyo (2021) Saura et al. (2008) Bode et al. (2011)			
	how well retailers can show their products from all fulfillment sources (store/warehouse) to potential customers	Simangunsong & Subagyo (2021)			
	timeliness, speed of fulfillment	Wang et al. (2015), Simangunsong (2018) Saura et al. (2008)			

	availability of products	Wang et al. (2015), Simangunsong (2018)			
	customize their logistics services to meet the various requirements of different customer segments (order quality)	Mentzer et al. (2001) Saura et al. (2008)			
	Tracking information	Saura et al. (2008)			

**Research Model & Hypotheses Development**

H1: App User Interface: App design positively influences consumers’ purchase intentions.

The research also expects to observe a positive relationship between product information and purchase intention. Marketers work to showcase their products with compelling visuals and text to enhance consumers’ decision-making processes in the marketplace. Product information is regarded as a crucial element, as it accelerates the buying decision and instills confidence in online purchases. Some consumers are even willing to pay a premium if an e-commerce platform offers more comprehensive information (Chung et al., 2006). In the context of online retail, item descriptions serve as vital communication tools that inform customers about the products or food items available. Previous research has extensively explored two key areas related to menu item descriptions: the information that should be included on the menu and the impact of these descriptions on customer attitudes and subsequent sales. Other studies have shown that detailed descriptions of menu items positively affect customers’ food choices (McCall & Lynn, 2008) and boost sales. For this study, we hypothesized that an online retail app designed to spark consumers’ interest in products must feature clear images, descriptive names, and detailed information.

H2: Product Information: Product informativeness positively influences consumers’ purchase intentions.

Another expectation is to observe a positive relationship between logistics service quality and purchase intention. It refers to how retailers deliver products to customers. It is also considered the most important variable according to Rachman and Safri (2018) as cited by Nusifera et al., (2020). Customer satisfaction with logistics service contributes significantly to customer satisfaction with logistics service. Focusing only on e-service quality without considering logistics service quality will not achieve better performance in e-commerce and e-retailing supply chain management. Research results show that, to some extent, e-service Quality has a positive impact on customer satisfaction with logistics services (Lin et al.,2016).

H3: Logistic Service Quality: Logistics service quality directly and positively affects purchase intentions.

The emergence of COVID-19 significantly altered the daily lives of people around the globe. The alarming rates of infection and death have led to various mental health issues, such as fear, anxiety, and depression. Many individuals are worried about the risk of contracting the virus, which has increased their anxiety about interacting with potentially infected individuals (Li & Xie, 2020). During this time, public health experts advised caution, prompting consumers to weigh the risks and benefits of going out due to the perceived threats associated with COVID-19. As a result, the availability of online food ordering services, along with delivery or quick pick up options, allowed consumers to maintain social distancing and avoid crowded areas. Research has shown that consumers prefer online ordering because it offers them convenience and a sense of control over the process (Kimes, 2011). Convenience has also been identified as a key factor that enhances consumer satisfaction (Kimes, 2011), fosters positive attitudes toward online ordering services, and increases the likelihood of future purchases (Yeo et al., 2017). In this study, we hypothesized that consumers' perception of convenience in online food ordering would be linked to their intentions to make purchases. Hence, we hypothesized that:

H4: Perceived convenience of ordering products online: Consumers' perceived convenience of online food ordering positively influences purchase intentions.

Convenience is a multifaceted concept that has been shown to be essential in influencing consumer purchasing decisions. In the retail sector, it has been established that convenience significantly impacts the online shopping experience, particularly regarding website accessibility, product search, evaluation, and transactions (Beauchamp & Ponder, 2010). As cities around the world implemented restrictions related to COVID-19, consumer behaviors underwent significant changes. Due to the pandemic, over 41.7% of consumers in March 2020 indicated they were inclined to purchase meal delivery online. In the same month, online meal delivery services in the United States increased by 14%. (Williams, 2020).

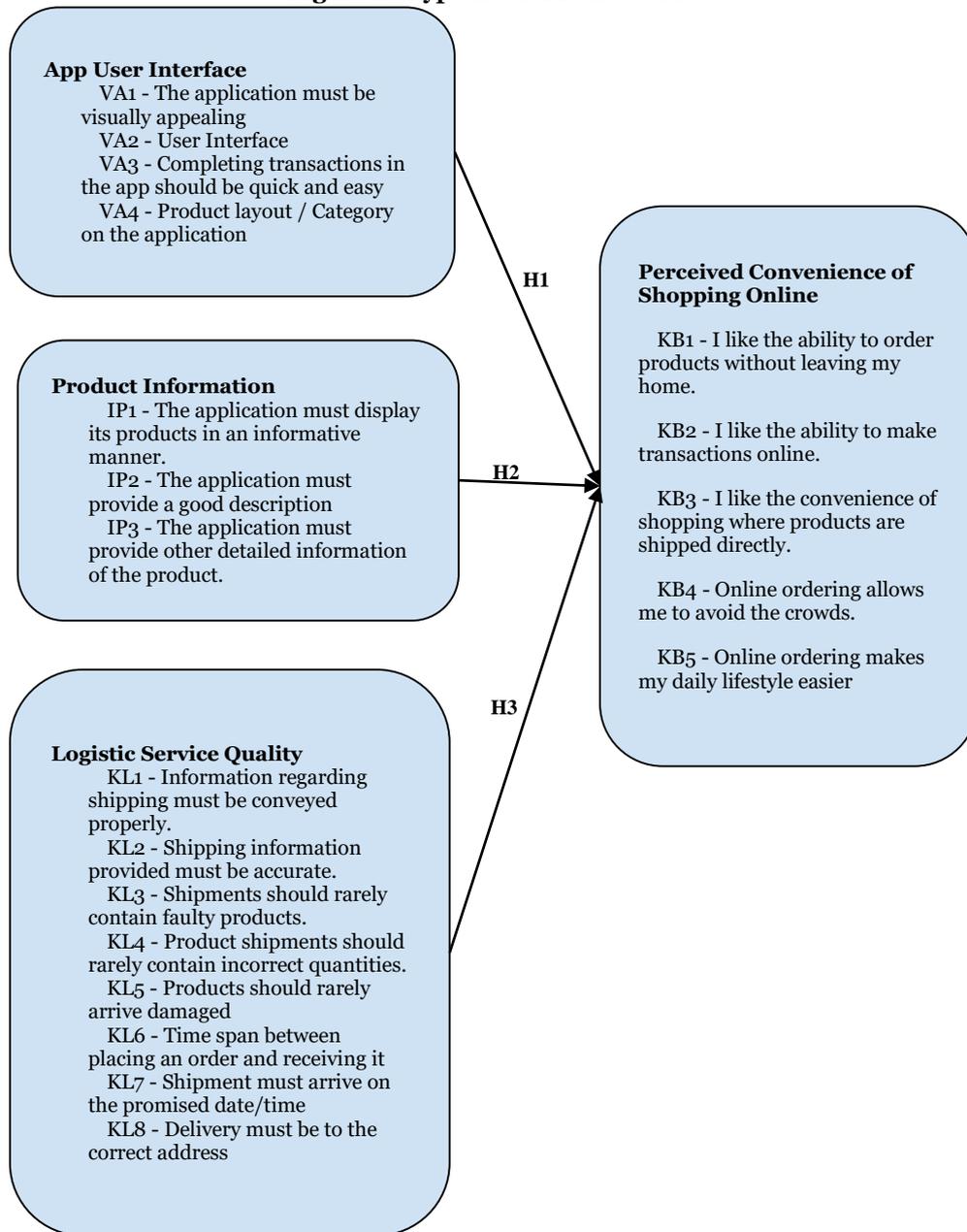
Based on current empirical evidence, individuals choose to order food and groceries online due to the convenience and control they feel over the ordering process (Kimes, 2011). Convenience has also been recognized as a key factor influencing higher consumer satisfaction (Kimes, 2011), positive perceptions of online ordering services, and intentions to make future purchases (Yeo et al., 2017).

This research found that the visual appeal of the menu (VA1), its informativeness (IP1), and consumers' perceptions of COVID-19 risks indirectly influence their purchase intentions (Brewer & Sebby, 2021). Modern technology enables consumers to order food through various channels, including restaurant websites or mobile apps, social media platforms like Facebook or Instagram, text messages or phone calls, and online food delivery services or applications (e.g., DoorDash, Uber Eats). The major reasons consumers ordered food online was for convenience (KB1-5) and control (Kimes, 2011, in Brewer & Sebby, 2021).

S-O-R framework? In the current study, the S-O-R framework was applied to investigate consumer behavior in ordering food from online platforms during the COVID-19 pandemic. Understandably, the creation of an appealing online restaurant menu (VA4) is one of the fundamental driving forces to direct consumers' purchase intentions in a competitive digital world (Brewer & Sebby, 2021). Previous researchers have conducted various studies about

menu designs to increase restaurant revenue. These analyses have included the effects of restaurant menu descriptions (IP2) on diners’ behavioral intentions (Fakih et al., 2016; McCall & Lynn, 2008), the influence of restaurant menu design (IP3) on consumers’ perceptions (KB1-5) (Magnini & Kim, 2016), the outcomes of descriptive menu labels (IP3) on sales (Wansink et al., 2001), and the effect of pictures and food names on menu evaluations (VA1) (Hou et al., 2017). In an online retailing context where customers could touch or see the actual products, the product’s projected visual appearance such as product photos must be appealing to attract customers (Hassanein & Head, 2007). By reviewing and analyzing previous studies and deducing assumptions based on literature findings, we can develop a framework that can be used for further testing. The framework is presented in Figure 2.

**Figure 2. Hypothesis Framework**



## METHOD

This research used quantitative methods with surveys to collect primary data. This research method is selected because we want to test the causal relationship as discussed in the literature review. Other methods, i.e., qualitative, are deemed insufficient to fulfil the research objectives. Moreover, most researchers cited in this study using quantitative as their methodological choice. The questions in the questionnaire are derived by the hypothesis framework. Population of this research is working people who live in Greater Jakarta and surrounding areas. Respondents are selected by applying convenience sampling. The collected data then checked for completeness and suitability for analysis. The cleaned data then analyzed using descriptive statistics to understand distribution data. SMARTPLS 3 software is applied in the next phase of analysis i.e., confirmatory factor analysis, to test the hypothesis using and answers the research objectives.

## RESULT AND ANALYSIS

### Descriptive Analysis

**Table 3. Most often used app**

<b>Grand Total</b>	<b>208</b>
GrabMart	47
Astro	34
SayurBox	34
Happy Fresh	30
Go to offline store	21
Segari	9
Tokopedia Now	9
Bibli	4
Klik Indomaret	4
Alfagift	3
Allo Fresh	2
Fresh Box	2
Go shop	2
Shopee Supermarket	2
Paskomnas	1
Tanihub	1
Titipku	1
Traveloka Mart	1
UberEats	1

Participants' platform preferences for ordering groceries online are presented in Table 3. Out of 208 participants, the top 3 platforms are GrabMart, Astro and Sayurbox, respectively. GrabMart and Sayurbox are the older players and had their infrastructure built before the pandemic hit Indonesia, whereas Astro is still relatively new as it was first introduced in 2021. GrabMart and Happy Fresh are currently available in Greater Jakarta, Bandung, Surabaya, Medan, Makassar, Manado, Bali, Balikpapan, Jambi, Lampung, Palembang, Mataram, Pekanbaru, Semarang, Yogyakarta. As for Astro, currently, it is dominant mostly on Java

Island, where the population is most crowded. According to Badan Pusat Statistik (2022), Java Island comprises around 55-56% of the whole Indonesian population in 2021.

**Table 4. Gender Contribution**

<b>Grand Total</b>	<b>208</b>
Pria	129
Wanita	79

In this study, 62% of the participants were men, while 38% were women. The data in 2021 shows that the population of Indonesia has more males than females, and it is aligned with the random sampling questionnaire.

**Table 5. Generation Range**

<b>Grand Total</b>	<b>208</b>
1946-1964	3
1965-1980	45
1981-1996	152
1997-2012	8

The age information on surveyees is segregated into different generations. From baby boomers (1946 - 1964), generation X (1965 - 1980), the millennials (1981 - 1996), and lastly, generation Z (1997 - 2012). Most of the survey was filled in by the millennials, as, currently, they are also in the stage of starting a family and dominating the e-groceries market.

**Table 6. Jobs**

<b>Grand Total</b>	<b>208</b>
Private-owned employee	136
Entrepreneurs	39
Government-owned employee	10
Housewife/not working	8
Freelancer	7
Student	3
Public/Social service	3
Pension	1
Doctor	1

**Table 7. Cities in Indonesia**

<b>Grand Total</b>	<b>208</b>
Jakarta	109
Tangerang	41
Lainnya	23
Bekasi	14
Depok	14
Bogor	7

More than half (63.5%) of the surveyees are working at privately owned companies and mostly live in Jakarta, which is the capital city of Indonesia.

**Table 8. Monthly Spending Range**

Grand Total	208
Rp 1.000.001 - Rp 2.000.000	33
Rp 100.000 - Rp 1.000.000	16
Rp 2.000.001 - Rp 3.000.000	38
Rp 3.000.001 - Rp. 4.000.000	19
Rp 4.000.001 - Rp. 5.000.000	27
Rp 5.000.001 - Rp. 6.000.000	18
Rp 6.000.001 - above	57

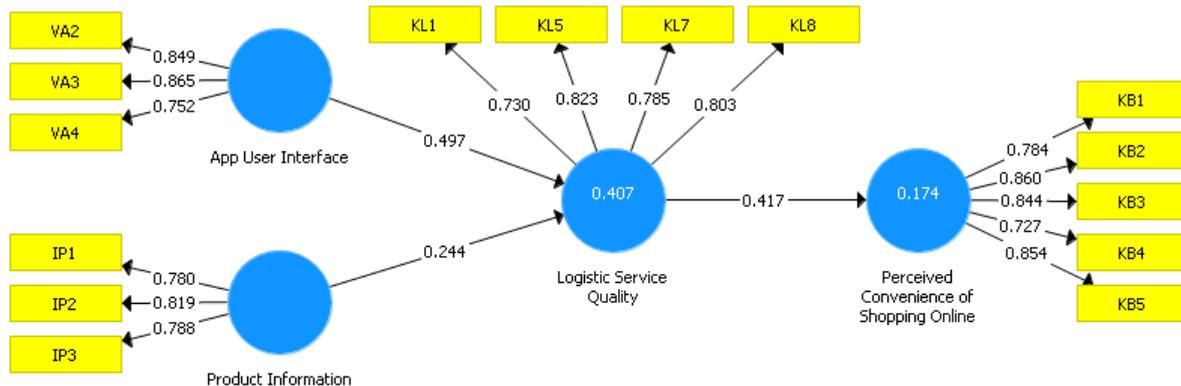
**Table 9. Frequency of Shopping**

Grand Total	208
1	23
2	41
3	25
4	34
5	26
6	13
7	6
8	6
9	1
> 10	33

According to Badan Pusat Statistik (2022), as of August 2021, the average Indonesian minimum wage is Rp2.687.724,00, with Jakarta's average of Rp 4.416.187,00. Though the result of the survey shows that most people spend more than Rp6.000.000 per person and probably for the whole household. In the majority, they shop around 1 - 5 times a month and also 10 times or above.

### Model Analysis

Structural Equation Modeling (SEM) is a multivariate data analysis method that can be used to test theoretically supported causal models. By using SmartPLS3, this study identifies two submodels, i.e., the inner model that explains the relationships between the independent and dependent latent variables and the outer model that explains the relationships between the latent variables and their observed Figure 2 shows the structural model.

**Figure 3. PLS-SEM Structural Model Result**

The inner model suggests that Perceived Convenience of Shopping Online has the strongest effect on Purchase Intention (0.670). Logistics Service Quality also has an effect on Perceived Convenience of Shopping Online (0.369) while App User Interface has a stronger effect on Logistics Service Quality (0.498) compared to Product Information (0.243).

By looking at Figure 3, it can be also observed that the coefficient of determination, R<sup>2</sup>, is 0.448 for the Purchase Intention endogenous latent variable. This means that the latent variable Perceived Convenience of Shopping Online in moderately explains 44.8% of the variance in Purchase Intention. Logistics Service Quality explains 13.6% of the variance of Perceived Convenience of Shopping Online while App User Interface and Product Information together explains 40.7% of the variance of Logistics Service Quality.

To view the correlations between the latent variable and the indicators in the outer model, see Table 10 below. The table shows the outer loadings and the indicator reliability value. Indicator reliability (Loading<sup>2</sup>) values show above the minimum acceptable level of 0.4 and some individual indicator reliability values are larger than the preferred level of 0.7. Therefore, it is reasonable to assume that the outer model is valid. To assess collinearity issues of the inner model, we examine Variance Inflation Factor (VIF) values for all indicators. Table 10 shows that all VIF values are lower than 5, which indicates there is no collinearity problem in the model.

**Table 10. Outer Loading and Reliability Measures Result**

Latent Variable	Indicators	Loadings	Indicator Reliability (i.e., loadings <sup>2</sup> )	VIF	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
<b>Purchase Intention</b>	IB1	0.911	0.8299	3.590	0.927	0.948	0.821
	IB2	0.908	0.8245	3.235			
	IB3	0.921	0.8482	4.038			
	IB4	0.883	0.7797	2.813			
<b>Product Information</b>	IP1	0.78	0.6084	1.216	0.72	0.838	0.634
	IP2	0.819	0.6708	1.996			
	IP3	0.788	0.6209	1.801			
<b>Perceived Convenience of Shopping Online</b>	KB1	0.839	0.7039	2.178	0.886	0.921	0.745
	KB2	0.898	0.8064	2.897			

	KB3	0.874	0.7639	2.514			
	KB5	0.840	0.7056	1.997			
<b>Logistics Service Quality</b>	KL1	0.728	0.5300	1.429	0.793	0.866	0.618
	KL5	0.824	0.6790	1.838			
	KL7	0.784	0.6147	1.777			
	KL8	0.805	0.6480	2.016			
<b>App User Interface</b>	VA2	0.849	0.7208	1.835	0.761	0.863	0.678
	VA3	0.865	0.7482	1.762			
	VA4	0.751	0.5640	1.337			

The next step is to check the reliability and validity of the latent variables to complete the examination of the structural model. Traditionally, “Cronbach’s alpha” is used to measure internal consistency reliability, however other literature also suggests checking “Composite Reliability” as an additional measure. Table 11 presents these values, which are shown to be larger than the minimum value of 0.6, so high levels of internal consistency reliability have been demonstrated among all reflective latent variables. To check convergent validity, each latent variable’s Average Variance Extracted (AVE) is evaluated. Again from table 11, it is found that all of the AVE values are greater than the acceptable threshold of 0.5, so convergent validity is confirmed.

Fornell & Larcker (1981) suggest that the square root of AVE in each latent variable can be used to establish discriminant validity, if this value is larger than other correlation values among the latent variables. To do this, a calculation is done to do this by finding the square root of AVE for each latent variable. The result is presented in Table 11 below. The table shows that the values in the diagonal column are larger than other values in the corresponding row or column. For example, Logistic Service Quality has a value of 0.788 (found by square root its AVE value of 0.618). This value is bigger than any value in its column (0.369, 0.449, 0.272) or row (0.598). A similar result is also found in other latent variables. Therefore, the result indicates that discriminant validity is well established.

**Table 11. Discriminant Validity**

	<b>App User Interface</b>	<b>Logistic Service Quality</b>	<b>PC of Shopping Online</b>	<b>Product Information</b>	<b>Purchase Intention</b>

<b>App User Interface</b>	0.823				
<b>Logistic Service Quality</b>	0.598	0.786			
<b>Perceived Convenience of Shopping Online</b>	0.299	0.369	0.863		
<b>Product Information</b>	0.414	0.449	0.279	0.796	
<b>Purchase Intention</b>	0.222	0.272	0.67	0.336	0.906

The last analysis is to check for structural path significance in bootstrapping. Here, SmartPLS software is used to create T-statistics for significance testing of both the inner and outer model, using a procedure called bootstrapping. The Bootstrap result approximates the normality of data. The result of the analysis is presented in Table 12 below.

**Table 12. Path Coefficients**

	<b>Original Sample</b>	<b>Sample Mean</b>	<b>Standard Deviation</b>	<b>T Statistics</b>	<b>P Values</b>
App User Interface -> Logistic Service Quality	0.498	0.494	0.094	5.280	0.000
Logistic Service Quality -> Perceived Convenience of Shopping Online	0.369	0.371	0.077	4.809	0.000
Perceived Convenience of Shopping Online -> Purchase Intention	0.670	0.670	0.044	15.169	0.000
Product Information -> Logistic Service Quality	0.243	0.246	0.070	3.489	0.001

The table above shows significant results ( $p\text{-value} < 0.05$ ) for all the path coefficients of the inner model. This confirms our findings that each path coefficient in the inner model is statistically significant. The result of the analysis provides enough evidence that: (1) App User Interface has an effect on Logistic Service Quality; (2) Product Information has an effect on Logistic Service Quality; (3) Logistic Service Quality has an effect on Perceived Convenience of Shopping Online; (4) Perceived Convenience of Shopping Online has an effect on Purchase Intention.

**CONCLUSION**

Due to required social distance restrictions, self-quarantines, and isolations throughout the world, the 2020 COVID-19 pandemic compelled the cessation of brick-and-mortar retail services. While losing billions in sales and facing soaring unemployment in the service sector, merchants had to focus on online ordering to promote sales and relieve financial stress. Due to these atypical conditions, the online food ordering system, which allows businesses to communicate online with their target market (prospects and consumers), has become a

necessity. While retail proprietors continue to face obstacles (substantial annual income loss and social distancing phase limits), online ordering has safeguarded their business.

### Practical Implications

On a practical level, this study has a number of important managerial implications for the retail industry regarding the identification of logistical service factors that attract new customers. Due to the fact that the App User Interface has an effect on Logistic Service Quality, the experience of selecting a delivery mode will be seamless and straightforward. Product information, such as price, distance, and delivery method, also influences logistic service quality. It is also discovered that logistic service quality influences the perceived convenience of online shopping and that it influences purchase intention.

In light of the findings from the study, several important managerial implications emerge for the retail industry, particularly in the realm of logistics service quality and consumer behavior. First and foremost, retailers should prioritize enhancing the user interface of their applications. A user-friendly and intuitive design is crucial, as it significantly impacts the overall customer experience. By investing in a well-designed interface, retailers can facilitate a seamless and enjoyable shopping experience, which is likely to encourage customers to use the app more frequently. Additionally, optimizing delivery options is essential. Retailers must ensure that customers have access to a variety of delivery methods that cater to their preferences. This flexibility not only meets the diverse needs of consumers but also enhances their satisfaction with the logistics service. Moreover, providing comprehensive product information is vital. Retailers should focus on clearly displaying key details such as pricing, delivery methods, and estimated delivery times. This transparency builds trust and confidence among consumers, ultimately influencing their purchasing decisions.

### Limitations and future research

This research has a few acknowledged shortcomings. First, the study collected all of its data mostly from populations in Greater Jakarta, which may have led to response bias. Future research may wish to incorporate potential control factors that may influence customer e-grocery ordering and purchase decisions to accurately capture the model's mediating effect.

### DAFTAR PUSTAKA

- Akram, U., Fülöp, M. T., Tiron-Tudor, A., Topor, D. I., & Căpușeanu, S. (2021). Impact of digitalization on customers' well-being in the pandemic period: Challenges and opportunities for the retail industry. *International Journal of Environmental Research and Public Health*, 18(14), 7533. <https://doi.org/10.3390/ijerph18147533>
- Badan Pusat Statistik (2021). *HASIL SENSUS PENDUDUK 2020: Berita Resmi Statistik* (No. 7/01/Th. XXIV) [Data Sets]. <https://sensus.bps.go.id/main/index/sp2020>
- Badan Pusat Statistik Indonesia. (7 Februari 2022). *Jumlah Penduduk Menurut Kelompok Umur dan Jenis Kelamin, 2021*. <https://www.bps.go.id/id/statistics-table/3/WVcoMGEyMXBkVFUxY25KeE9HdDZkbTQzWkVkb1p6MDkjMw==/jumlah-penduduk-menurut-kelompok-umur-dan-jenis-kelamin--2021.html?year=2021>

- Beauchamp, M. B., & Ponder, N. (2010). Perceptions of retail convenience for in-store and online shoppers. *The Marketing Management Journal*, 20(1), 49-65.
- Bienstock, C. C., & Royne, M. B. (2010). Technology acceptance and satisfaction with logistics services. *The International Journal of Logistics Management*, 21(2), 271-292. <https://doi.org/10.1108/09574091011071951>
- Bode, C., Lindemann, E., & Wagner, S. M. (2011). Driving trucks and driving sales? The impact of delivery personnel on customer purchase behavior. *Journal of Business Logistics*, 32(1), 99-114. <http://dx.doi.org/10.1111/j.2158-1592.2011.01009.x>
- Brewer, P., & Sebby, A. G. (2021). The effect of online restaurant menus on consumers' purchase intentions during the COVID-19 pandemic. *International Journal of Hospitality Management*, 94, 102777. <https://doi.org/10.1016/j.ijhm.2020.102777>
- Chung, M., Moon, J., Yoo, B., & Choe, Y. (2006). Paradox of Information Quality: Do Consumers Pay More for Premium Product Information on E-commerce Sites?. *Proceedings of the Twelfth Americas Conference on Information Systems, Acapulco, Mexico August 04th-06th 2006*, 418-424.
- Fakih, K., Assaker, G., Assaf, A. G., & Hallak, R. (2016). Does restaurant menu information affect customer attitudes and behavioral intentions? A cross-segment empirical analysis using PLS-SEM. *International Journal of Hospitality Management*, 57, 71-83. <https://doi.org/10.1016/j.ijhm.2016.06.002>
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 24(4), 337-346. <http://dx.doi.org/10.1177/002224378101800104>
- Hassanein, K., & Head, M. (2007). Manipulating perceived social presence through the web interface and its impact on attitude towards online shopping. *International journal of human-computer studies*, 65(8), 689-708. <https://doi.org/10.1016/j.ijhcs.2006.11.018>
- Hou, Y., Yang, W., & Sun, Y. (2017). Do pictures help? The effects of pictures and food names on menu evaluations. *International Journal of Hospitality Management*. 60, 94-103. <https://doi.org/10.1016/j.ijhm.2016.10.008>
- Kimes, S. E. (2011). The current state of online food ordering in the US restaurant industry. *Cornell Hospitality Report*, 11(17).
- Kassim, N., & Abdullah, N. A. (2010). The effect of perceived service quality dimensions on customer satisfaction, trust, and loyalty in e-commerce settings: A cross cultural analysis. *Asia Pacific Journal of Marketing and Logistics*, 22(3), 351-371. <http://dx.doi.org/10.1108/13555851011062269>
- Li, Y., & Xie, Y. (2020). Is a picture worth a thousand words? An empirical study of image content and social media engagement. *Journal of Marketing Research*, 57(1), 1-19. <http://dx.doi.org/10.1177/0022243719881113>

- Lin, Y., Luo, J., Cai, S., Ma, S., & Rong, K. (2016). Exploring the service quality in the e-commerce context: a triadic view. *Industrial Management & Data Systems*, 116(3), 388-415. <http://dx.doi.org/10.1108/IMDS-04-2015-0116>
- Magnini, V. P., & Kim, S. (2016). The influences of restaurant menu font style, background color, and physical weight on consumers' perceptions. *International Journal of Hospitality Management*, 53, 42-48. <https://doi.org/10.1016/j.ijhm.2015.11.001>
- McCall, M., & Lynn, A. (2008). The effects of restaurant menu item descriptions on perceptions of quality, price, and purchase intention. *Journal of foodservice business research*, 11(4), 439-445. <https://doi.org/10.1080/15378020802519850>
- Mentzer, J. T., Flint, D. J., & Hult, G. T. M. (2001). Logistics service quality as a segment-customized process. *Journal of marketing*, 65(4), 82-104. <http://dx.doi.org/10.1509/jmkg.65.4.82.18390>
- Nusifera, A. N., Najib, M., & Kirbrandoko, K. (2020). Factor affecting user satisfaction in agricultural e-commerce applications: Facing the new normal. *Journal of Innovation in Business and Economics*, 4(02), 49-60. <http://dx.doi.org/10.22219/jibe.v4i02.12954>
- Pappas, I., Sharma, K., Mikalef, P., & Giannakos, M. (2018). Visual aesthetics of E-commerce websites: An eye-tracking approach. *Proceedings of the 51st Hawaii International Conference on System Sciences*, 255-264. <http://dx.doi.org/10.24251/HICSS.2018.035>
- Saura, I. G., Francés, D. S., Contri, G. B., & Blasco, M. F. (2008). Logistics service quality: a new way to loyalty. *Industrial management & data systems*, 108(5), 650-668. <https://doi.org/10.1108/02635570810876778>
- Simangunsong, E. (2018). Generation-z buying behaviour in Indonesia: Opportunities for retail businesses. *MIX: Jurnal Ilmiah Manajemen*, 8(2), 243-253. <https://dx.doi.org/10.22441/mix.2018.v8i2.004>
- Simangunsong, E., & Subagyo, I. (2021). Investigation and Analysis of Omnichannel Logistics Models: A Study in The Electronic Retail Industry in Indonesia. *Operations and Supply Chain Management: An International Journal*, 14(2), 221-231. <http://doi.org/10.31387/oscm0450298>
- Stank, T. P., Goldsby, T. J., Vickery, S. K., & Savitskie, K. (2003). Logistics service performance: estimating its influence on market share. *Journal of business logistics*, 24(1), 27-55. <https://doi.org/10.1002/j.2158-1592.2003.tb00031.x>
- Wansink, B., Painter, J., & Ittersum, K. V. (2001). Descriptive Menu Labels' Effect on Sales. *Cornell Hotel and Restaurant Administration Quarterly*, 42(6), 68-72. <https://doi.org/10.1177/0010880401426008>

- Wolfenbarger, M., & Gilly, M. C. (2003). eTailQ: dimensionalizing, measuring and predicting retail quality. *Journal of retailing*, 79(3), 183-198. [https://doi.org/10.1016/S0022-4359\(03\)00034-4](https://doi.org/10.1016/S0022-4359(03)00034-4)
- Yeo, S. F., Tan, C. L., Teo, S. L., & Tan, K. H. (2021). The role of food apps servitization on repurchase intention: A study of FoodPanda. *International Journal of Production Economics*, 234, 108063. <https://doi.org/10.1016/j.ijpe.2021.108063>
- Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through web sites: a critical review of extant knowledge. *Journal of the academy of marketing science*, 30(4), 362-375. <http://dx.doi.org/10.1177/009207002236911>