The Influence of E-Service Quality and Food Quality on Behavioral Intention through Attitude: Study on Millennial Moms as Online Grocery Shoppers in West Java

Desy Oktaviani
Faculty of Economics and Business, University Widyatama, Indonesia
E-mail: desy.oktaviani@widyatama.ac.id

ABSTRACT

This study aims to examine the effect of e-service quality and food quality on behavioral inten-tion through attitude among millennial moms as online grocery shoppers in West Java, Indone-sia. Purposive sampling was used to obtain a sample of 298 respondents who met the research criteria. SEM-PLS testing was used to analyze the data. What was found in the course of the work? This will refer to analysis, discussion, or results. The results of this study indicate that the e-service quality and food quality variables have a significant positive influence on attitude. Additionally, attitude was found to have a significant positive effect on behavioral intention also playing a role as mediator. This study specifically examines the behavior of millennial mothers in West Java, with data collection conducted immediately after the pandemic period. Differ-ences in behavior are highly likely to be found when research is conducted subsequently. The findings of this study can provide valuable insights into the influence of e-service quality and food quality on behavioral intention in the Indonesian online grocery industry specifically for West Java Market. It offers companies a deeper understanding of consumer behavior and the crucial factors that drive long-term decision-making in online grocery services. This study pre-sents a unique perspective by examining the impact of the post-pandemic digitalization trend on online grocery shopping. The special emphasis lies in the researcher's ability to provide insights into post-pandemic behavioral changes, positioning the pandemic as a catalyst for shifts in digi-talization trends. In contrast to other studies focusing on behavioral aspects during the pandemic, this research sheds light on behavior after the pandemic.

Keywords: E-service quality; food quality; attitude; behavioral intention; online grocery shop-ping.

INTRODUCTION

Online grocery shopping refers to the purchase of fresh food items through the internet, utilizing services such as click-and-collect or home delivery and accessible via various platforms such as websites, applications, e-commerce, WhatsApp, or social media (Asti et al., 2021; Brand et al., 2020; Gutama & Intani, 2017). It represents a business model incorporating information technology to engage in communication, transactions, and distribution system discussions with customers through online media (Farhani et al., 2022). Dominant players in the Indonesian online grocery market include Segari, SayurBox, TaniHub, EdenFarm, and others (Farhani et al., 2022; CNBC, 2023). The advantages for consumers extend beyond just the simplicity and speed of online grocery shopping (Bezirgani & Lachapelle, 2020). Online grocery shopping is a relatively recent phenomenon in developing countries like Indonesia (Ryadi et al., 2021). Until the early months of 2020, prior to the pandemic, the adoption of online grocery shopping in Indonesia remained low, especially when compared to other product categories (Gumasing et al., 2022; Handayani et al., 2020). This industry contributed only about 5% to total consumption, a significant contrast to the 18.9% in the apparel sector and 10% in digital homeware purchases (GRStore, 2019). It was only with the advent of the pandemic and the implementation of large-scale social restrictions (PSBB) that online grocery shopping witnessed a rapid surge in Indonesia (Ryadi et al., 2021; The Jakarta Post, 2020). Several online grocery startups

emerged, experiencing exponential growth (Farhani et al., 2022; Ryadi et al., 2021; The Jakarta Post, 2020). In 2022, Indonesia is predicted to become the fourth-largest online grocery shopping market in Asia, following China, India, and Japan (Nurhayati-Wolff, 2021).

Numerous studies predict that after the end of the COVID-19 pandemic, consumers may revert to their traditional habit of purchasing groceries directly from physical stores (Kurniasari & Ryadi, 2021). This potential shift requires vigilance from stakeholders in the online grocery industry. Thus, understanding the factors influencing behavioral intention toward online grocery shopping becomes paramount for companies to formulate effective strategies. The main objective of this study is to identify the factors influencing the attitude and behavioral intention related to online grocery shopping in the post-COVID-19 economic conditions among millennial mothers in West Java. This research aims to fill current literature gaps and gain a deeper understanding of online grocery shopping among millennial mothers in West Java. Through this enhanced understanding, companies can optimize consumer services and experiences, improve marketing efficiency, and significantly enhance competitiveness in this evolving market. Considering this urgency, the study is expected to make a significant contribution in both academic and practical contexts.

Existing studies have not fully encompassed the complexity of factors influencing online shopping behavior, particularly among millennial mothers. Recent research on online grocery shopping is directly associated with the context of the COVID-19 pandemic. Therefore, a more in-depth and holistic study is needed to fill these gaps and comprehend the relationship between e-service quality, food quality, attitude, and behavioral intention in online grocery shopping more comprehensively. The COVID-19 pandemic is viewed as a catalyst in this study, aiming to represent post-pandemic conditions. Providers of online grocery services must ensure that customers continue using these services by understanding the factors that naturally drive customer satisfaction in online grocery shopping (Mustikasari & Astuti, 2021).

This research focuses on millennial mothers as consumers of online grocery shopping in West Java, Indonesia. The selection of West Java as the research region is based on its demographic, economic, and social diversity, providing a more comprehensive understanding of the influence of e-service quality and food quality on the attitudes and behavioral intentions of consumers.

The Influence of E-Service Quality on Attitude

E-Service quality in the context of online grocery shopping refers to the overall customer experience during the online grocery process (Suhartanto et al., 2023; Kuhn et al., 2020). It is a critical factor in online sales as customers can easily compare prices and technical features of products (Alagarsamy et al., 2021; Celik, 2021). When customers perceive the e-service quality of an online service positively, it influences their perceptions, affects satisfaction, and generates a positive intention for future actions (Suhartanto et al., 2023). Interestingly, when shopping using e-service, customers consistently expect high-quality service (Farhani et al., 2022; Pee et al., 2018). Previous research has shown that e-service quality influences both attitude and behavioral intention in the contexts of online grocery shopping and other areas such as banking services (Suhartanto et al., 2023; Tedjokusumo & Murhadi, 2023). Therefore, e-service quality is predicted to have a positive and significant impact on the attitude in online grocery shopping among millennial mothers in West Java, as formulated in the following hypothesis:

H_1: E-Service quality has a direct and positive influence on attitude.

The Influence of Food Quality on Attitude

Food quality refers to the overall condition of products to meet customer needs (Farhani et al., 2022; Ha & Jang, 2010). Previous studies have confirmed that when customers receive high-quality food, it influences their perceptions, affects satisfaction, and generates a positive intention for future actions

(Suhartanto et al., 2023). As a product that is the object of the transaction, food quality becomes a primary factor considered by customers when engaging in online grocery shopping (Suhartanto et al., 2019). Indicators of food quality include physical appearance, variety, condition, taste, healthiness, freshness, and nutritional content (Suhartanto et al., 2020; Namkung & Jang, 2007). Food quality is predicted to have a positive and significant impact on attitude in online grocery shopping among millennial mothers in West Java, as formulated in the following hypothesis:

H_2: Food quality has a direct and positive influence on attitude.

The Influence of Attitude on Behavioral Intention

Attitude refers to the extent to which someone has favorable or unfavorable evaluations or judgments of a behavior (Ajzen, 1991). Behavioral intention refers to "how hard someone is willing to try" and "how much effort they plan to exert" regarding a specific behavior (Kim & Woo, 2016). In developing situations like the realm of online grocery shopping, consumers have not developed firm opinions or attitudes towards online services (Tyrväinen & Karjaluoto, 2022). Previous research has confirmed that attitude influences behavioral intention in online grocery shopping (Warganegara & Hendijani, 2022; Loketkrawee et al., 2018; Alagoz & Hekimoglu, 2012). In the context of online grocery shopping, earlier studies have confirmed that attitude plays a mediating role in the relationship between determinants and behavioral intention (Loketkrawee & Bhatiasevi, 2018; Sreeram & Desai, 2017; Hansen et al., 2004). Attitude is predicted to have a positive and significant impact on behavioral intention and simultaneously play a mediating role in online grocery shopping among millennial mothers in West Java, as formulated in the following hypothesis:

H_3: Attitude has a direct and positive influence on behavioral intention

H_4: Attitude plays a mediating role between e-service quality and food quality in influencing behavioral intention.
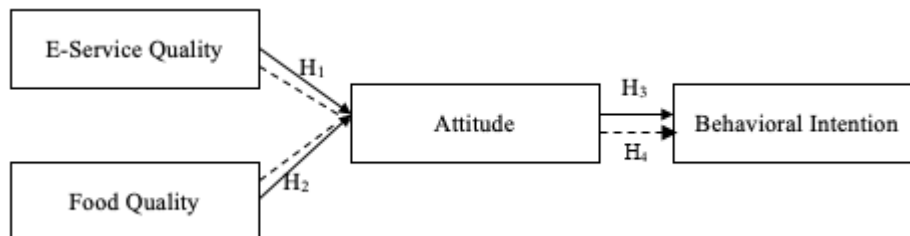

Figure 1. Research Model

METHOD

The method employed in this study is a quantitative descriptive approach. The data utilized are primary data collected through a validated and reliable questionnaire. The respondents for this research consist of 298 millennial moms in West Java (born between 1981 and 1996) who are active users of online grocery services. The sample selection was conducted using the purposive sampling method. Data analysis was performed through SEM-PLS testing.

There are four variables examined in this study: e-service quality, food quality, attitude, and behavioral intention. Each of these variables was measured using items developed by Suhartanto et al. (Suhartanto et al., 2023) with modifications. The item used are shown in Table 1.

Table 1. Item Measurement

Variables	Item	Source
E-Service Quality	1. User-friendly interface 2. Appealing visual design 3. Quick website/application accessibility (no loading issues) 4. Ease of finding the required groceries 5. Informative content 6. Swift transaction process 7. Timely delivery of ordered groceries 8. Adherence to promised delivery times for groceries 9. Assurance of personal data security 10. Secure payment options	Suhartanto et al. (2023); Farhani et al. (2022)
Food Quality	1. Adequate packaging 2. Diverse product range 3. High-quality taste 4. High nutritional value 5. Freshness	Suhartanto et al. (2023); Farhani et al. (2022)
Attitude	1. Shopping through online grocery services is an enjoyable experience 2. It surpasses my expectations 3. Overall, I feel satisfied	Suhartanto et al. (2023); Farhani et al. (2022)
Behavioral Intention	1. I will continue to purchase groceries through online grocery services 2. I will recommend online grocery to my friends 3. I will provide positive testimonials regarding online grocery	Suhartanto et al. (2023); Farhani et al. (2022)

Table 2. Convergent Validity Testing Results

Variables	Item	Convergent Validity	
		Factor Loading	AVE
E-service Quality (EQ)	7	0,647 – 0,793	0,513
Food Quality (FQ)	5	0,645 – 0,790	0,552
Attitude (AT)	3	0,823 – 0,848	0,698
Behavioral Intention (BI)	3	0,826 – 0,886	0,746

In the validity testing, outer loading is considered valid if its value is >0.60 (Hair, et al., 2017), while AVE should be >0.50 (Hair, et al., 2017). In this study, all items have met the validity test criteria because the outer loading values for all items are greater than 0.60, and the AVE for each respective variable is greater than 0.50.

Table 3. Discriminant Validity Testing Results

	Attitude	Behavioral Intention	E-Service Quality	Food Quality
AT1	0.848	0.586	0.476	0.505
AT2	0.823	0.544	0.473	0.424
AT3	0.835	0.539	0.507	0.528
BI1	0.576	0.826	0.413	0.402
BI2	0.553	0.886	0.438	0.424
BI3	0.595	0.879	0.465	0.454
EQ1	0.455	0.413	0.669	0.412
EQ4	0.415	0.348	0.678	0.447
EQ6	0.454	0.402	0.745	0.403
EQ7	0.492	0.463	0.778	0.497
EQ8	0.417	0.331	0.793	0.590
EQ9	0.284	0.239	0.647	0.487
EQ10	0.329	0.282	0.688	0.520
FQ1	0.399	0.371	0.408	0.699
FQ2	0.391	0.359	0.487	0.645
FQ3	0.430	0.373	0.524	0.780
FQ4	0.419	0.381	0.517	0.790
FQ5	0.509	0.359	0.519	0.789

In the discriminant validity testing, cross loading indicating good discriminant validity if each measurement item correlates weakly with another construct excepts for the ones to which it is theoretically associated (Gefen & Straub, 2005). In this study, the cross-loading for each construct is very low indicating good discriminant validity.

RESULT AND DISCUSSION

Respondent Characteristics

In the study, the questionnaire was distributed to respondents online. Out of the 298 collected respondents, a classification was conducted to facilitate the examination of respondent characteristics.

Table 4. Respondent Characteristics

Description		Amount	Percentage
Occupation	Homemakers	98	33%
	Workers	34	11%
	Students	166	56%
Online Grocery Shopping Used	Segari	24	8%
	SayurBox	50	17%
	TaniHub	62	21%
	PasarNow	9	3%

Description		Amount	Percentage
	Efarming Corpora	23	8%
	Praya Farm	26	9%
	Local Farmer/Shop	58	19%
	Marketplace Mart	46	15%
Services Used	Application	114	38%
	Marketplace	46	15%
	Social Media	34	11%
	Web	43	14%
	WhatsApp	61	20%
Online Grocery Shopping Intensity	Less than 1 time/mo	129	43%
	1-5 times/mo	140	47%
	More than 5 times/mo	29	10%

Source: Primary data processed, 2023

R Testing

Table 5. R Testing

Construct	R Square	R Square Adjusted
Attitude	0.408	0.404
Behavioral Intention	0.444	0.442

The magnitude of the influence of exogenous constructs on endogenous constructs can be observed in the adjusted R square values. According to Table 5, Attitude has an adjusted R square value of 0.404, indicating that e-service quality and food quality collectively influence 40.4% of attitude. In other words, attitude is influenced by 40.4% from e-service quality and food quality, while 59.6% is influenced by other factors. On the other hand, Behavioral Intention has an adjusted R square value of 0.442, meaning that attitude influences 44.2% of behavioral intention. This implies that 44.2% of behavioral intention is influenced by attitude, and 55.8% is influenced by other factors.

Fit Model Testing
The Goodness of Fit test results is used to assess the overall quality of the research model (Tenenhaus et al., 2005). There are three categories in calculating the Goodness of Fit value: small (0.10), medium (0.25), and large (0.36) (Cohen, 1988). In this research model, the Goodness of Fit results are presented in Table 6.

Table 6. Fit Model Testing

Construct	AVE	R^2

E-service Quality	0,513	
Food Quality	0,552	
Attitude	0,698	0,408
Behavioral Intention	0,746	0,444
Average	0,627	0,426
AVE x R^2		0,267
GoF		0,516

Based on Table 6, the Goodness of Fit (GoF) value for this study is 0.516, indicating a large category as it exceeds the value of 0.36. Thus, it can be concluded that the proposed model in this research is of very good quality and can be utilized.

Hypothesis Testing

Figure 2. SmartPLS Model

The hypothesis testing was conducted using the bootstrapping method to examine the significance of independent and dependent variables. At a 5% error level, a hypothesis is accepted if the t-statistic > 1.96 or p-value < 0.05 (Hair et al., 2017). The results of the hypothesis testing are presented in Table 7.

Table 7. Hypothesis Testing

	Path	β	T Statistic	P Value	Result
H₁	*EQ -> AT*	0.348	5.169	0.000	Significant. Hypothesis supported

H₂	*FQ -> AT*	0.353	5.092	0.000	Significant. Hypothesis supported
H₃	*AT -> BI*	0.666	15.467	0.000	Significant. Hypothesis supported

From the results of the hypothesis testing, it can be inferred that e-service quality and food quality have a significant impact on attitude since their respective p-values are below 0.05 (ß = 0.348, p-value = 0.000; ß = 0.353, p-value = 0.000), indicating the acceptance of H1 and H2. Additionally, attitude also has a positive and significant influence on behavioral intention with a p-value below 0.05 (ß = 0.666, p-value = 0.000), indicating the acceptance of H₃.

Indirect Effect Testing
The testing of indirect effects can be conducted under the condition that the direct path coefficients have already been found to be significant. Based on the results of the hypothesis testing with direct path coefficients, it is evident that the direct effects are significant, allowing for the examination of indirect effects. The results of the indirect effects test are presented in Table 8.

Table 8. Indirect Effect Testing

Path	β	T Statistic	P Value	Result
EQ -> BI	0.232	4.872	0.000	Supported
FQ -> BI	0.235	4.589	0.000	Supported

Based on Table 8, it can be observed that e-service quality and food quality have a significant positive indirect effect on behavioral intention because their p-values are below 0.05 (ß = 0.232, p-value = 0.000; ß = 0.235, p-value = 0.000). The next step involves testing specific indirect effects by introducing the mediating variable, attitude, between the independent and dependent variables. The results are presented in Table 9.

Table 9. Specific Indirect Effect Testing

Path	4.	β	T Statistic	P Value	Result
EQ -> AT -> BI		0.232	4.872	0.000	Supported
FQ -> AT -> BI		0.235	4.589	0.000	Supported

To determine the mediating effect of the attitude variable on the relationship between e-service quality and food quality with behavioral intention, testing was conducted using the Variance Accounted For (VAF) method. The results of the VAF test are presented in Table 10.

Table 10. VAF Testing

Description	Amount
Indirect Effect	
EQ -> AT -> BI	0.232
FQ -> AT -> BI	0.235
Dirrect Effect	
EQ -> BI	0.232
FQ -> BI	0.235

Total (Indirect+Direct)	
E-service Quality	0.464
Food Quality	0.470
VAF (indirect/total)	
E-service quality	0.500
Food Quality	0.500

If the VAF value is above 80%, it indicates full mediation. If the VAF value ranges from 20% to 80%, it is categorized as partial mediation. If the VAF value is below 20%, it can be said that there is almost no mediating effect (Hair in Sholihin, 2014). Based on the testing in Table 10, it can be concluded that the attitude variable has a partial mediating effect between the influence of e-service quality on behavioral intention and food quality on behavioral intention because each VAF value is 0.500 or 50%. Indicating the acceptance of H_4.

Discussion

This study confirms that e-service quality and food quality significantly and positively influence attitude, and attitude, in turn, significantly and positively influences behavioral intention. In other words, the higher the levels of e-service quality and food quality, the more positive the levels of attitude and behavioral intention among millennial mothers in West Java regarding the use of online grocery services. The research also confirms the role of attitude as a partial mediator between e-service quality and food quality in influencing behavioral intention. This aligns with previous research, highlighting the factors considered by customers in online grocery shopping, such as the experience with the platform, the received product, delivery experience, and customer service (Mustikasari & Astuti, 2021).

The Variance Accounted For (VAF) test results show values of 50% each, indicating partial mediation (Sholihin & Ratmono, 2013). The study confirms that attitude indeed plays a role as a partial mediator in the relationship between e-service quality and food quality and behavioral intention. These findings are consistent with previous research, both in the context of online grocery shopping and in other sectors, indicating that attitude serves as a partial mediator in the relationship between e-service quality and food quality and behavioral intention, as well as other determining factors (Suhartanto et al., 2023; Farhani et al., 2022; Warganegara & Hendijani, 2022).

When customers perceive that the platform of the online grocery service they use or the quality of the purchased food is low, it leads to feelings of disappointment and dissatisfaction. These assessments and feelings constitute what is referred to as attitude. Subsequently, these preferences will trigger the emergence of intentions regarding specific behaviors, such as the intention to use the service again in the future or not (Singh & Söderlund, 2020). Customers who have a positive shopping experience in a store also have a higher likelihood of spreading positive recommendations through word of mouth (Duerte et al., 2018).

The magnitude of the influence of exogenous constructs on endogenous constructs can be seen in the adjusted R-square values. Based on Table 1.2, Attitude has an adjusted R-square value of 0.404, meaning that e-service quality and food quality influence 40.4% of attitude, or in other words, attitude is influenced by 40.4% from e-service quality and food quality, with 59.6% influenced by other factors. Meanwhile, behavioral intention has an adjusted R-square value of 0.442, meaning that attitude influences 44.2% of behavioral intention, or in other words, behavioral intention is influenced by 44.2% from attitude, with 55.8% influenced by other factors.

These results indicate that while e-service quality and food quality make a significant contribution, there are still other unexplored factors influencing the attitudes and behavioral intentions of consumers in online grocery shopping for food. This is related to the natural mindset of customers, as they perceive that

grocery shopping online is much more complex than shopping in person (Saunders, 2021). The adoption of online grocery shopping itself has undergone changes after the end of the pandemic, considering the underlying situation has changed (Kurniasari & Ryadi, 2021). Therefore, providers of online grocery services can be more focused by delving deep into the two main factors that significantly influence adoption, namely the quality of e-service and food. This will help retailers more effectively manage and improve the crucial elements in providing online grocery shopping services. Focusing on improving e-service quality and food quality can be a solid foundation to maintain customer appeal. By enhancing e-service quality, providers can offer a smoother and more satisfying online shopping experience. Meanwhile, improving food quality will strengthen customer trust in the products they purchase online. This approach will not only help retain existing customers but also create opportunities to attract new customers. Therefore, the success of companies in the online grocery industry can be seen as a result of wise and sustainable investment in improving the quality of services and products.

The improvement of e-service quality and food quality can also be enriched by leveraging insights obtained from current customer preferences. For instance, the representative results of this study reveal that the majority of users of online grocery shopping services are working millennial mothers, and their primary choice is to use applications. Delving deeper into these preferences can provide retailers with valuable insights into the features desired by customers, such as a user-friendly interface, an efficient purchasing experience, and product offerings that align with the needs of millennial mothers. By understanding these preferences, companies can design more targeted and specific strategies to enhance the customer experience and ensure that their online grocery services meet the unique expectations and needs of this customer segment.

Theoritical Implication and Managerial Implication

The findings of this study offer valuable managerial insights for businesses operating in the online grocery industry, particularly in the West Java market. Understanding the significant positive influence of e-service quality and food quality on consumer attitudes provides companies with a strategic advantage. Companies should prioritize enhancing the quality of their e-services and food offerings to positively shape the attitudes of millennial mothers, a crucial segment in the online grocery sector.

Moreover, recognizing the substantial positive effect of attitudes on behavioral intention underscores the importance of cultivating positive consumer perceptions. Marketing strategies should focus not only on promoting product features but also on creating a positive and seamless online shopping experience. By doing so, businesses can increase the likelihood of millennial moms forming strong behavioral intentions, ultimately driving long-term decision-making in favor of online grocery services.

The study's emphasis on post-pandemic behavioral changes is particularly relevant for managerial decision-making. In the wake of the pandemic, companies should adapt their digitalization strategies to align with the evolving preferences and behaviors of millennial mothers. The pandemic is identified as a catalyst for shifts in digitalization trends, and businesses should leverage this insight to stay ahead in the competitive online grocery market.

In summary, companies in the West Java online grocery market should invest in improving e-service quality and food quality to positively influence consumer attitudes and, consequently, behavioral intentions. Adapting to post-pandemic digitalization trends and considering the unique behaviors of millennial moms will be crucial for long-term success in the online grocery sector.

CONCLUSION

This research has delved into the complexities of online grocery shopping behavior among millennial moms in West Java, Indonesia, specifically focusing on the key determinants of e-service quality and food quality. Through purposive sampling and SEM-PLS testing, the study has substantiated that both e-service quality and food quality significantly shape positive attitudes among millennial moms. Furthermore, attitudes play a pivotal mediating role, exerting a significant positive effect on behavioral intentions. Despite the valuable insights provided for companies operating in the West Java Market of the Indonesian online grocery industry, it is crucial to acknowledge the study's limitations. Conducted immediately after the pandemic period, future research is warranted to capture potential shifts in post-pandemic consumer behavior. The practical implications underscore the study's significance in offering companies a profound understanding of consumer behavior and the critical factors influencing long-term decision-making in the realm of online grocery services. The study's distinctive contribution lies in its unique perspective on the post-pandemic digitalization trend's impact on online grocery shopping, portraying the pandemic as a catalyst for transformative shifts in digitalization trends. This research, unlike others centered on behavioral aspects during the pandemic, sheds light on the nuanced behaviors emerging in the post-pandemic landscape.

REFERENCES

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 211(50), 179–211.

Alagarsamy, S., Mehrolia, S., & Singh, B. (2021). Mediating effect of brand relationship quality on relational bonds and online grocery retailer loyalty. *Journal of Internet Commerce*, 20(2), 246–272.

Alagoz, S.M., & Hekimoglu, H. (2012). A Study on Tam: Analysis of Customer Attitudes in Online Food Ordering System. *Procedia-Soc. Behav*, 62, 1138–1143.

Asti, W. P., Handayani, P. W., & Azzahro, F. (2021). Influence of Trust, Perceived Value, and Attitude on Customer's Repurchase Intention for E-grocery. *Journal of Food Products Marketing,* 27(3), 157-171.

Bezirgani, A., & Lachapelle, U. (2020). Qualitative Study on Factors Influencing Aging Population's Online Grocery Shopping and Mode Choice When Grocery Shopping in Person. *Transportation Research Record*, 2675(1), 79–92.

Brand, C., Schwanen, T., & Anable, J., (2020). 'Online Omnivores' or 'Willing but struggling'? Identifying online grocery shopping behavior segments using attitude theory. *Journal of Retailing and Consumer Services*, 57, 102195.

Celik, K. (2021). The Effect of E-service quality and After-Sales E-service. *BMIJ*, 9(3), 1137-1155.

CNBC Indonesia. (2023). *Ambisi Startup RI Pakai Satelit Prediksi Panen Petani.* https://www.cnbcindonesia.com/tech/20230411143115-37-428988/ambisi-startup-ri-pakai-satelit-prediksi-panen-petani

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences (2nd ed.)*. Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.

Duarte, P., Silva, S., & Ferreira, M. (2018). How convenient is it? Delivering online shopping convenience to enhance customer satisfaction and encourage e-WOM. *Journal of Retailing and Consumer Services*, 44.

Farhani, I., Suhartanto, D., & Suhaeni, T. (2022). Prediksi Penerimaan Layanan E-Grocery Bahan Makanan Lokal di Indonesia. *Prosiding Industrial Research Workshop and National Seminar,* 13(1).

Gefen, D., & Straub, D. (2005). A Practical Guide to Factorial Validity Using PLSGraph: Tutorial and

Annotated Example. *Communications of the Association for Information Systems*, 16, 91–109.

Gumasing, M. J., Prasetyo, Y., Persada, S., Ong, A., Young, M., Nadlifatin, R., & Redi, A. (2022). Using Online Grocery Applications during the COVID-19 Pandemic: Their Relationship with Open Innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(93).

Gutama, W.A., & Intani, A. (2017). Consumer Acceptance towards Online Grocery Shopping In Malang, East Java, Indonesia. *Agricultural SocioEconomics Journal*, 17(1), 2252-6757.

Ha, J., & Jang, S. (2010). Effects of service quality and food quality: The moderating roleofatmospherics inan ethnic restaurant segment. *International Journal of Hospitality Management*, 29(3), 520–529.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (Second Edi)*. SAGE Publications Ltd.

Hair, Joseph. F. (2010). *Multivariate Data Analysis*. Seventh Edition. New Jersey: Pearson Prentice Hall.

Handayani, P., Amalia, R., Pinem, A., & Azzahro, F. (2020). Switching Intention from Traditional to Online Groceries Using the Moderating Effect of Gender in Indonesia. *Journal of Food Products Marketing*, 26, 1-15.

Hansen, T., Jensen, J.M., & Solgaard, H.S. (2004). Predicting online grocery buying intention: a comparison of the theory of reasoned action and the theory of planned behavior. *International Journal of Information Management*, 24(6), 539-550.

Henseler, J., Ringle, C., & Sinkovics, R. (2009). The Use of Partial Least Squares Path Modeling In International Marketing. . *New Challenges to International Marketing Advances in International Marketing*, 277-319.

Kim, Yeong & Woo, Eunju. (2016). Consumer acceptance of a quick response (QR) code for the food traceability system: Application of an extended technology acceptance model (TAM). *Food Research International*, 85.

Kuhn, F., Lichters. M., & Krey, N. (2020). The touchy issue of produce: Need for touch in online grocery retailing. *Journal of Business Research*, 117, 244-255.

Kurniasari, F., & Ryadi, W. T. (2021). Determinants of Indonesian E-Grocery Shopping Behavior After Covid-19 Pandemic Using the Technology Acceptance Model Approach. *United International Journal for Research & Technology (UIJRT)*, 03(01), 12–18.

Loketkrawee, P., & Bhatiasevi, V. (2018). Elucidating the Behavior of Consumers toward Online Grocery Shopping: The Role of Shopping Orientation. *Journal of Internet Commerce*, 17(4), 418–445.

Mustikasari, D & Astuti, R. (2021). Factors Affecting Online Grocery Shopping Experience. *Conference: International Conference on Business and Engineering Management (ICONBEM 2021)*.

Namkung,Y., & Jang, S. (2007). Does Food Quality R eally Matter in Restaurants? Its Impact On Customer Satisfaction and Behavioral Intentions. *Journal of Hospitality & Tourism Research (Washington, D.C.)*, 31(3), 387– 409.

Nurhayati-Wolff, H. (2021). *Market share of online grocery retail in Indonesia in 2020 with a forecast for 2022.* Retrieved from https://www.statista.com/statistics/1227268/indonesia-online-grocery-retail-market-share/

Pee, L., Jiang, J., & Klein, G. (2018). Estore loyalty: Longitudinal comparison of website usefulness and satisfaction. *International Journal of Market Research*, 12, 1-17.

Ryadi, W., Kurniasari, F., & Sudiyono, K. (2021). Factors influencing consumer's intention towards e-

grocery shopping: An extended technology acceptance model approach. *Economics, Management and Sustainability*, 6, 146-159.

Saunders, N. (2018). *Online Grocery & Food Shopping Statistics.* Retrieved from https://www.onespace.com/blog/2018/08/online-grocery-food-shopping-statistics/

Sholihin, M. (2014). *Analisis SEM-PLS dengan WrapPLS 3.0: untuk Hubungan Nonlinier dalam Penelitian Sosial dan Bisnis.* Yogyakarta: Andi Offset.

Sholihin, M., & Ratmono, D. (2013). *Analisis SEMPLS dengan WarpPLS 3.0*. Yogyakarta: ANDI.

Singh, R., & Söderlund, M. (2020). Extending The Experience Construct: An Examination of Online Grocery Shopping. *European Journal Of Marketing*, 1(1).

Sreeram, A., Kesharwani, A., & Desai, S. (2017). Factors Affecting Satisfaction and Loyalty in Online Grocery Shopping: an Integrated Model. *Journal of Indian Business Research*, 9(2), 107-132.

Store, G. (2019). *Company Insight—Top 50 Global Online Retailers 2019*. Retrieved from https://store.globaldata.com/report/gdrt00012rl--company-insight-top-50-global-online-retailers-2019/

Suhartanto, D., Dean, D., Arsawan, I.W.E., Pradana, M., & Farhani, I. (2023). Eating Good Food and Helping the Community: The Drivers of Online Local Food Purchasing. *Journal of International Food & Agribusiness Marketing.*

Suhartanto, D., Dean, D., Leo, G., & Triyuni, N. N. (2019). Millennial experience with online food home delivery: A lesson from Indonesia. *Interdisciplinary Journal of Information, Knowledge, and Management*, 14, 277–294.

Suhartanto, D., Helmi Ali, M., Tan, K. H., Sjahroeddin, F., & Kusdibyo, L. (2019). Loyalty toward online food delivery service: The role of e-service quality and food quality. *Journal of Foodservice Business Research*, 22(1), 81–97.

Suhartanto, D., Ismail, T. A., Leo, G., Triyuni, N. N., & Suhaeni, T. (2020). Behavioral intention Toward Online Food Purchasing: An Analysis at Different Purchase Levels. *International Journal of E-Business Research*, 16(4), 34-50.

Tedjokusumo, C., & Murhadi, W. (2023). Customer satisfaction as a mediator between service quality and customer loyalty: a case study of Bank Central Asia. *Jurnal Siasat Bisnis*, 27(2). 156-170.

Tenenhaus, M., Vinzi, V., & Chatelin, Y.(2005). PLS Path Modeling. *Computational Statistics & Data Analysis*, 48, 159-205.

The Jakarta Post. (2020). *Online grocery shopping to drive e-commerce growth as PSBB reimposed: Experts.* Retrieved from https://www.thejakartapost.com/news/2020/09/14/online-grocery-shopping-to-drive-e-commerce-growth-as-psbb-reimposed-experts.html

Tyrväinen, Olli., & Karjaluoto, H. (2022). Online grocery shopping before and during the COVID-19 pandemic: A meta-analytical review. *Telematics and Informatics,* 71.

Warganegara, D & Babolian, R. (2022). Factors That Drive Actual Purchasing of Groceries through E-Commerce Platforms during COVID-19 in Indonesia. *Sustainability*, 14.