



Comparative Analysis of Seller's Preferences in Selling Online in Marketplaces

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Abstract. In Indonesia, the growth of internet commerce (e-commerce) tendencies has nearly doubled since the Covid-19 pandemic. The changes that have taken place have created a pattern where individuals are switching from traditional to internet buying. Both Shopee and Tokopedia provide business actors numerous options to boost sales, but each e-commerce has advantages and disadvantages specific to the services offered to business actors in e-commerce. This study compares Shopee and Tokopedia sellers' perceptions of their experiences to see if there are any discrepancies. In order to collect data, preference and comparison problem-related questionnaires were sent. Shopee excels in the people variable, while Tokopedia excels in the product, price, site, promotion, physical facilities, and process factors, according to the average perceived value of each variable. Overall, Tokopedia outperforms Shopee in terms of the services it offers to merchants. The findings of this study can be utilized to assess the issues that arise from comparison studies in order to better the research subject.

Keyword: Shopee, Tokopedia, Comparative Study, Preference, Online Sales

Abstrak. Di Indonesia, pertumbuhan kecenderungan perdagangan melalui internet (ecommerce) hampir dua kali lipat sejak pandemi Covid-19. Perubahan yang terjadi telah menciptakan pola dimana individu beralih dari pembelian tradisional ke pembelian melalui internet. Baik Shopee maupun Tokopedia memberikan banyak pilihan kepada pelaku usaha untuk mendongkrak penjualan, namun masing-masing e-commerce memiliki kelebihan dan kekurangan yang spesifik terhadap layanan yang ditawarkan kepada pelaku usaha dalam ecommerce. Penelitian ini membandingkan persepsi penjual Shopee dan Tokopedia tentang pengalaman mereka untuk melihat apakah ada perbedaan. Untuk mengumpulkan data, kuesioner terkait masalah preferensi dan perbandingan dikirim. Shopee unggul pada variabel people, sedangkan Tokopedia unggul pada faktor produk, harga, situs, promosi, fasilitas fisik, dan proses, sesuai dengan rata-rata nilai yang dirasakan dari masing-masing variabel. Secara keseluruhan, Tokopedia mengungguli Shopee dalam hal layanan yang ditawarkan kepada pedagang. Temuan penelitian ini dapat dimanfaatkan untuk mengkaji permasalahan yang muncul dari studi banding agar subjek penelitian menjadi lebih baik.

Kata Kunci: Shopee, Tokopedia, Studi Banding, Preferensi, Penjualan Online

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1. Introduction

The Covid-19 pandemic, which started in Indonesia in 2020 but spread to other countries as well, has had a big influence on the economy [1]. The epidemic that happened caused an economic shock that has had an impact on every level of society, including individuals, small businesses, and micro enterprises, as well as a nation's economy on a local, national, and even international level [2] [3]. Businesspeople must be able to establish effective marketing strategies in light of the Covid-19 pandemic in order for their organizations to survive, compete, and grow [4] [5]. A marketing strategy is a plan to choose and study a target market as well as develop and maintain a marketing mix that may satisfy its customers' needs [6]. In these circumstances, business players are forced to adapt by making certain adjustments, such as selling things online, promoting their products through social media, or developing their website [7] [8].

Since the Covid-19 epidemic began, Indonesia's growth in e-commerce trends has nearly doubled. During the Covid-19 pandemic, the growth of e-commerce is crucial for business players, consumers, and the government [9]. The changes that have taken place have created a pattern where individuals are switching from traditional to internet buying. E-presence commerce can hasten digital inclusion for Indonesian business operators. According to data given by Iprice Insights, Shopee and Tokopedia are the two e-commerce sites with the highest visitor counts, with 390,826,700 and 527,556,700 visits, respectively, in 2020. Guests in 2021 [10]. The two e-commerce sites with the most users in 2021 are Shopee and Tokopedia. The large number of visitors offers business actors a big opportunity to sell their goods. According to Liang et. al. in 2020, the sales volume is significantly impacted by the number of visits. Both Shopee and Tokopedia provide business actors numerous options to boost sales, but each e-commerce has advantages and disadvantages specific to the services offered to business actors in e-commerce [11].

Business people that choose the best e-commerce will benefit from effective and efficient marketing in the information and transactional channels [12]. Businesspeople that use the market as their business location can employ a system made possible by e-commerce [2]. For business players to use e-commerce technology for business improvement, including promotion, product marketing, and online marketing, Shopee and Tokopedia present the ideal prospects. Businesses have a variety of options for marketing their goods on the online stores Shopee and Tokopedia. Each e-commerce platform offers different capabilities for business actors, each with advantages and downsides. However, business executives typically assess each e-commerce as a selling medium before deciding on the ideal one for their needs. The upcoming e-commerce for each business actor.

According to this description, a comparative study approach was used in the research. This study compares Shopee and Tokopedia as the two factors under consideration. Because it can address the cause-and-effect relationship based on observations on two Shopee and Tokopedia variables, the comparative study method was chosen. The benefit of a comparative study is that it can

produce research findings to address a variety of issues or symptoms, allowing for the creation of improvements for the institution or organization that has been designated as the research object. There is some literature on preference analysis utilizing the comparative study method, but there isn't much on seller preference analysis when it comes to internet sales. The purpose of this research are to find out how services provided by Shopee to online businesses and find out how services provided by Tokopedia to online businesses. In addition, analyzing whether there are differences in seller's perceptions of selling online at Shopee and Tokopedia.

2. Method

Comparative analysis is used in this research strategy. In order to determine whether or not there is a comparison of the object being examined, a comparative study compares two or more variables. All vendors who have completed online transactions at the e-commerce sites Shopee and Tokopedia make up the study's demographic. The Rao Purba formula is used to determine the minimal number of samples required for this study[13]. The following formula determines the required minimum sample size:

$$n = \frac{z^2}{4(Moe)^2}$$
(1)

Where n is defined the number of samples, z is defined the standard distribution level, and Moe is defined margin of error max or the highest amount of sampling error that may be tolerated.

A questionnaire was utilized by the researchers to obtain the data for this investigation. This survey is given out in a unique closed-question format, with each question and response offering a different justification. The 7 P marketing mix idea was used to compare the variables in this survey. Product (X1), price (X2), place (X3), promotion (X4), people (X5), physical facilities (X6), and process (X7) are the factors to be used [14]·[15].To gauge respondents' perceptions, a Likert scale with equal intervals and five possible responses was employed in the questionnaire. Give each group of questions the following weight value for evaluation:

Criteria	Description	Score
VNG	Very Not Good	1
NG	Not Good	2
0	Okay	3
G	Good	4
VG	Very Good	5

 Table 1
 Likert Scale Assessment Criteria

According to Sudjana [16], the average value, aided by the constraints in the following table, can be used to define the range of scores that may be obtained and the meaning of the score findings when interpreting the study variables:

Interval	Description
1.00 - 1.79	Very Not Good
1.80 - 2.59	Not Good
2.60 - 3.39	Okay
3.40 - 4.19	Good
4.20 - 5.00	Very Good

Table 2Scoring Result Interval

The researcher conducted a validity test using the product moment correlation formula to evaluate the correctness (validity) of the research instrument utilized. In the meantime, the research instrument underwent a reliability test to assess its accuracy. The normality test, which uses the Kolmogorov–Smirnov formula to check the data's normality, is the first precondition test performed[17]. The homogeneity test of the Levene Statistic formula is employed as the second precondition test[18]. After all the data has been gathered, the independent sample t-test is used to analyze the data and test the hypothesis[19].

3. Results and Discussion

3.1. Population and Sample

Population is a data set consisting of objects and subjects that have certain characteristics. The population in this study were all sellers who had sold online at e-commerce Shopee and Tokopedia.

The sampling technique used in this study was purposive sampling. Purposive sampling is a method of determining a non-probability sample with certain consideration criteria [20]. The main advantage of purposive sampling is that the selected sample is a sample that is in accordance with the research objectives [21]. So, using the purposive sampling method can be used to answer problems regarding comparisons and seller perceptions in selling online at e-commerce Shopee and Tokopedia. The characteristics of the respondents who were used as samples were sellers who had made online sales of an item at e-commerce Shopee and Tokopedia.

According to the minimum number of samples that must be met in this study based on the Rao Purba formula [13]. By using a max margin of error of 10%, the minimum number of samples that can be taken is using formula (1) is n=96.04 or 96; and rounded up to 100

Based on the calculation results, the number of samples to be used is 96.04 respondents and rounded up to 100 respondents. Because of that basis, the researchers determined the number of samples in this study as many as 100 respondents.

3.2. Normality Test Results

The normality test seeks to ascertain if the population from which the data are drawn has a regularly distributed population. The Kolmogorov-Smirnov method was used for normality testing.

Tuble 5 Romanie	Tuble 5 Rollmanty Test Results				
Description	Score				
Amount of data	100				
Std. Deviation	11.54				
Sig. (2-tailed)	0.845				

 Table 3
 Normality Test Results

The significant value of 0.845, which can be stated to be normally distributed because it is higher than the r table value of 0.05, allows us to draw the conclusion from table 3 above that the analyzed data is normally distributed.

3.3. Homogeneity Test Results

The goal of the homogeneity test is to establish the homogeneity or similarity of the analyzed data.

 Table 4
 Homogeneity Test Results

Levene Statistic	df1	df2	Sig.
0.691	1	198	0.407

Based on Table 4, the Levene Statistic value is 0.691, and the significance value is 0.407, both of which are higher than the theoretical significance value of 0.05, indicating that the variance of the data is homogeneous.

3.4. Independent Sample T-test Results

The following significant differences between Shopee and Tokopedia vendors in terms of product, price, place, promotions, people, physical facilities, and process were tested using the t-test difference test:

- Sig. (2-tailed) 0.05 indicates a substantial difference between the two groups, with H0 being rejected and Ha being accepted.
- Sig. (2-tailed) > 0.05 indicates that neither group differs significantly from the other, indicating that H0 is accepted and Ha is rejected.

This test is a statistical test tool used to test differences in seller preferences in selling online at Shopee and Tokopedia. If the data is normally distributed, then the test tool used is the t test. The parametric test used is the Independent Sample T-Test rating test. This test is used to determine the significance of differences in seller preferences in selling online at Shopee and Tokopedia, by comparing the differences in each indicator (ratio). This t-test differs to evaluate the difference between the means of two independent or unrelated groups. Evaluate whether the means for the two independent groups are significantly different from each other. Independent sample tests are

generally referred to as intergroup designs, and can also be used to analyze control and experimental groups.

Variable	E-commerce	Mean	Std.Deviation	Sig. (2-tailed)	Description	
Product	Shopee	3.790	0.701	0.003	There is a	
Product	Tokopedia	4.003	0.683	0.005	difference	
Price	Shopee	3.255	0.719	0.000	There is a	
Price	Tokopedia	2.915	0.613	0.000	difference	
Place	Shopee	3.804	0.695	0.026	There is a	
Flace	Tokopedia	4.023	0.693	0.020	difference	
Promotion	Shopee	3.783	0.609	0.085	There is no	
Promotion	Tokopedia	3.950	0.747	0.085	difference	
Deemle	Shopee	3.870	0.601	0.859	There is no	
People	Tokopedia	3.854	0.703	0.839	difference	
Dhysical Easilities	Shopee	3.923	0.702	0.148	There is no	
Physical Facilities	Tokopedia	4.070	0.725	0.148	difference	
Process	Shopee	4.164	0.595	0.427	There is no	
	Tokopedia	4.237	0.699	0.427	difference	

 Table 5
 Independent Sample T-Test Results

3.5. Research Findings Analysis

The preferences of Shopee sellers have a good level of preference, according to the examination of the results. This is evident from the 3.79 average seller preference score on Shopee. In the data collection process, the questionnaire used was in Indonesian because all respondents used that language and made it easier for respondents to understand the questions. Following is a summary of the findings from the Shopee seller preference study:

 Table 6
 Seller Preferences on Shopee

	Question Items	Average Answer	Answer Description	Variable Average	Variable Description
	X.1.1 Ease of adding products on Shopee	4.13	Good		
	X.1.2 Product guarantee from Shopee to the seller	3.64	Good		
X.1 Product	X.1.3 Policy on goods (return) in seller's Shopee	3.53	Good	3.72	Good
	X.1.4 Protection of products with brand rights from Shopee against products owned by sellers	3.58	Good		
	X.2.1 Shopee admin fee for each transaction charged to the seller	2.66	Okay	3.26	Okay
X.2 Price	X.2.2 Product price competition at Shopee	2.71	Okay		
X.2 Price	X.2.3 Delivery cashback given by Shopee to the seller	3.36	Okay		
	X.2.4 Variation of payment methods provided by Shopee to sellers	4.29	Very Good		
	X.3.1 Variations of shipping service methods and shipping costs provided by Shopee to sellers	4.01	Good		
X.3 Place	X.3.2 Ease of increasing online store ratings on Shopee from regular stores to star seller to star + seller	3.5	Good	3.80	Good
	X.3.3 Ease of access and management of online stores on Shopee	3.9	Good		

	X.4.1 Ease of sellers in making product advertisements on Shopee	3.79	Good		
X.4 Promotion	X.4.2 Broadcast chat service provided by Shopee to sellers	3.74	Good	3.78	Good
	X.4.3 Information about Campaign promotions that Shopee offers to sellers	3.82	Good		
	X.5.1 Number of online shop visitors on Shopee	3.8	Good		
X.5 People	X.5.2 The seller's message retaliation feature with the buyer provided by Shopee	3.98	Good	3.87	Good
	X.5.3 Special Shopee Customer Service for sellers	3.83	Good		
X.6	X.6.1 Display and design of shop decoration templates provided by Shopee to sellers	3.92	Good	2.02	
Physical Facilities	X.6.2 Store menu display on Shopee	3.99	Good	3.92	Good
racinties	X.6.3 Layout of all seller features in Shopee	3.86	Good		
	X.7.1 Ease of creating a shop on Shopee	4.16	Good		
X.7 Process	X.7.2 Easy withdrawal of seller's balance from Shopee to seller's account	4.19	Good	4.16	Good
	X.7.3 Ease of order management on Shopee	4.14	Good		
	X Average (Seller Preference on Shopee)			3.79	Good

According to the aforementioned chart, question item X.2.1, "Shopee admin fee for each transaction charged to the seller," received the lowest seller preference at 2,66, indicating that Shopee sellers believe the admin fee imposed is reasonable. According to the Shopee website, non-Star merchants must pay an administration fee between 1.25 and 2.5 percent. A 1.75%–3.25% administration fee, 5%–36% Xtra Free Shipping Service Fee, and 1% Xtra Cashback Service Fee are assessed to star/star+ vendors. With a score of 4.29, item X.2.4, "Variation of payment methods provided by Shopee to sellers," is the seller's top choice for Shopee. This indicates that for all sorts of payments made by sellers, Shopee has offered a very good range of payment methods. Nearly all variable ratings that the respondents rated as "good" also corroborate this outcome. In general, it can be said that Shopee's service quality is regarded as "Good" by the seller.

According to the examination of the results, Tokopedia's vendors have good preferences. This is evident from the 3.81 average seller preference score on Tokopedia. The following summarizes the findings of the study on Tokopedia's seller preferences:

Research Variable	Question Items	Average Answer	Answer Description	Variable Average	Variable Description
	Y.1.1 Ease of adding products on Tokopedia	4.08	Good		
Y.1	Y.1.2 Product warranty from Tokopedia to the seller	4.03	Good	4.02	Good
Product	Y.1.3 Return policy on Tokopedia to sellers	3.96	Good		
	Y.1.4 Protection of products with brand rights from Tokopedia against products owned by sellers	4.01	Good		

 Table 7
 Seller Preferences in Tokopedia

	4.01	Good			
	X.7.3 Ease of order management on Tokopedia	4.26	Very Good		
X.7 Process	X.7.2 Easy withdrawal of seller's balance from Tokopedia to seller's account	4.25	Very Good	4.21	Very Good
	X.7.1 Ease of creating a shop on Tokopedia	4.12	Good		
racintites	X.6.3 Layout of all seller features in Tokopedia	4.09	Good		
Physical Facilities	X.6.2 Store menu display on Tokopedia	4.13	Good	4.07	Good
X.6	X.6.1 Display and design of shop decoration templates provided by Tokopedia to sellers	3.99	Good		
	X.5.3 Special Tokopedia Customer Service for sellers	3.95	Good		
X.5 People	X.5.2 The seller's message retaliation feature with the buyer provided by Tokopedia	3.99	Good	3.85	Good
	X.5.1 Number of online shop visitors on Tokopedia	3.62	Good		
	X.4.3 Information about Campaign promotions that Tokopedia offers to sellers	3.94	Good		
Y.4 Promotion	X.4.2 Broadcast chat service provided by Tokopedia to sellers	3.96	Good	3.95	Good
	X.4.1 Ease of sellers in making product advertisements on Tokopedia	3.95	Good		
	Y.3.3 Ease of access and management of online stores on Tokopedia	4.02	Good		
Y.3 Place	Y.3.2 Ease of increasing online store ratings on Tokopedia from regular stores to star seller to star + seller	3.9	Good	4.02	Good
	Y.3.1 Variations in delivery service methods and shipping costs provided by Tokopedia to sellers	4.15	Good		
	Y.2.4 Variation of payment methods provided by Tokopedia to sellers	4.2	Very Good		
1.2 11100	Y.2.3 Delivery cashback given by Tokopedia to the seller	3.84	Good	5.72	Good
Y.2 Price	Y.2.2 Product price competition on Tokopedia	3.87	Good	3.92	Good
	Y.2.1 Tokopedia admin fee for each transaction charged to the seller	3.75	Good		

According to Table 7, the question item Y.5.1, "Number of online store visitors at Tokopedia," has the lowest seller preference at Tokopedia with a score of 3.62. This indicates that Tokopedia sellers believe the number of visitors to the online store is good even though it is still lower than Shopee based on preference score. According to Iprice Insight [10], Tokopedia had the most e-commerce visits in Indonesia from the second to the fourth quarter of 2021. However, Tokopedia's preference score in this study was lower than Shopee's, indicating that there are still many sellers who think the volume of visits to Tokopedia is low. However, it can be argued that Tokopedia receives a "Good" number of visits. With a score of 4.26, the question item Y.7.3, "Easy to manage orders at Tokopedia," receives the seller's greatest choice at Tokopedia, indicating that the sellers believe it to be "Very Good" and easy to handle orders there. According to Tokopedia in 2022 [22], orders are processed by clicking "Order Received" and then "request pick up." Nearly all variable ratings that the respondents rated as "good" also corroborate this outcome. Overall, it can be said that Tokopedia's service quality is regarded as "Good" by its seller customers.

Three variables show differences and four do not in the study of the results of the comparison of seller preferences at Shopee and Tokopedia. Following is a summary of the findings from the comparison of Shopee and Tokopedia seller preferences:

Sho	pee	Tokopedia		Indexendent Semula T Test Desults
Variable	Average	Variable	Average	Independent Sample T-Test Results
X.1.1	4.13	Y.1.1	4.08	
X.1.2	3.64	Y.1.2	4.03	
X.1.3	3.53	Y.1.3	3.96	There is a difference
X.1.4	3.58	Y.1.4	4.01	
X.1	3.72	Y.1	4.02	

 Table 8
 Product Variable Comparison Summary

There are discrepancies between the Shopee product variable and the Tokopedia product variable as shown by the results of the independent sample t-test. According to the average preference score, the product variable on Shopee has a score of 3.72, while the product variable on Tokopedia has a score of 4.02. Based on the scores, the Tokopedia's product variable is better than Shopee. Because, adding products in Tokopedia is simpler than adding products to Tokopedia, respondents believe that Tokopedia's product warranty is better than Shopee. Tokopedia's return policy is superior to Shopee's, and as a result, Tokopedia is able to offer greater security for returned goods, ensuring that they arrive in good condition. Tokopedia is able to safeguard merchants who have branded products better than Shopee when it comes to protecting their products with brand rights. Of the 100 respondents, online retailers believe that the levels of perception for the Tokopedia and Shopee product characteristics are essentially the same. The average perception, which states that the two variables are thought to produce a favourable perception, reflects this commonality. Shopee has to enhance its services for product guarantees, return procedures, and the protection of trademarked products for sellers in terms of product variables. Tokopedia needs to enhance its offerings by making it simpler to add products.

She	opee	Tokopedia		Indexedent Controls T Test Describe
Variable	Average	Variable	Average	Independent Sample T-Test Results
X.2.1	2.66	Y.2.1	3.75	
X.2.2	2.71	Y.2.2	3.87	
X.2.3	3.36	Y.2.3	3.84	There is a difference
X.2.4	4.29	Y.2.4	4.2	
X.2	3.26	Y.2	3.92	

 Table 9
 Price Variable Comparison Summary

There are differences between the Shopee and Tokopedia price variables according to the independent sample t-test results, but when looking at the average value preference score, the Shopee price variable has an average preference score of 3.26 and the Tokopedia price variable has an average preference score of 3.92. Because the score value displays a greater number, the Tokopedia price variable is superior to the Shopee product variable. Tokopedia's admin fee is better than Shopee's for each transaction charged to the seller, so Tokopedia's admin fee is less expensive than Shopee's. Tokopedia's product pricing competition is more intense than Shopee's, which makes it extremely challenging for merchants to market their goods there. Tokopedia offers the seller a better delivery cashback than Shopee, hence the cashback value delivered by Tokopedia is more than the cashback offered by Shopee. Compared to Tokopedia, Shopee offers

merchants a wider range of payment options. This has also been demonstrated through research Wulandari et al., 2021 that Shopee offers advantages with a variety of price selections and payment method possibilities. Shopee needs to enhance its administration fees, pricing competition, and delivery payback to sellers in the price variable. Tokopedia must simultaneously enhance its offerings by adding more payment options.

Shopee		Tokopedia		ee Tokopedia		Independent Semple T Test Degulta
Variable	Average	Variable	Average	Independent Sample T-Test Results		
X.3.1	4.01	Y.3.1	4.15			
X.3.2	3.5	Y.3.2	3.9			
X.3.3	3.9	Y.3.3	4.02	There is a difference		
X.3	3.80	Y.3	4.02			

Table 10 Comparison of Place Variables in Summary

There are discrepancies between Shopee and Tokopedia based on the independent sample t-test results, but when referring to the average preference score, Shopee's location variable has an average preference score of 3.8 while Tokopedia's place variable has an average preference score of 4.02. Because the score value displays a greater number, the Tokopedia place variable is superior to the Shopee place variable. This indicates that the level of service offered by Tokopedia to the seller in the particular location is superior to that offered by Shopee. Tokopedia offers more options for picking shipping services and delivery charges than Shopee since it offers sellers a wider range of shipping service options and shipping costs.

The ease of boosting online store rankings on Tokopedia from standard stores to Power Marchant to Power Marchant Pro is superior to Shopee, indicating that Tokopedia makes it simpler to enhance store reputation and store quality. Shopee's ease of access and management of online stores is superior to Tokopedia's, which indicates that sellers believe it is simple to manage aspects of managing online stores, such as setting up the creation of coupons, cash backs, and discounts. Of the 100 respondents, online retailers believe that the levels of perception for the Tokopedia and Shopee product characteristics are essentially the same. The average perception, which states that the two variables are thought to produce a favourable perception, reflects this commonality. Shopee needs to improve services in the form of varying delivery service rates and shipping ways as well as make it simpler to raise online store ratings against sellers in the location variable. Tokopedia must, meanwhile, enhance its offerings to make it simpler to access and manage online shops.

Shopee		Tokopedia		Indexendent Comple T Test Desults
Variable	Average	Variable	Average	Independent Sample T-Test Results
X.4.1	3.79	Y.4.1	3.95	There is no difference
X.4.2	3.74	Y.4.2	3.96	
X.4.3	3.82	Y.4.3	3.94	
X.4	3.78	Y.4	3.95	

 Table 11 Comparison of Promotional Variables in Summary

According to the findings of the independent sample t-test, there is no difference between the Shopee promotion variable and the Tokopedia promotion variable, but the Tokopedia promotion variable is superior to the Shopee promotion variable. The average preference score for the

promotion variable on Shopee is 3.78, whereas the average preference score for the promotion variable on Tokopedia is 3.95. Because it is more convenient for sellers to post product advertisements on Tokopedia than it is on Shopee, advertisements made for Tokopedia are more likely to be seen by the desired audience. Tokopedia offers merchants a better broadcast chat service than Shopee, therefore mass marketing chats on Tokopedia are favourably received by the seller. Tokopedia provides vendors with stronger campaign promotion material than Shopee, indicating that it is actively supplying campaign information that sellers can take part in to pique the attention of both sellers and buyers. Shopee has to improve services in the marketing variable, such as the simplicity of creating advertisements, broadcast chat services, and knowledge of campaigns for sellers. Tokopedia must continue to maintain and enhance the services it has already offered to sellers.

She	Shopee		pedia	Independent Sample T-Test Results
Variable	Average	Variable	Average	Independent Sample 1-Test Results
X.5.1	3.8	Y.5.1	3.62	
X.5.2	3.98	Y.5.2	3.99	
X.5.3	3.83	Y.5.3	3.95	There is no difference
X.5	3.87	Y.5	3.85	

 Table 12 Comparative Summary of Promotional Variables

According to the findings of the independent sample t-test, there is no difference between the Shopee and Tokopedia people variables, however the Shopee people variable is superior than the Tokopedia people variable. This is demonstrated by the average preference scores of 3.87 for the people variable on Shopee and 3.85 for the people variable on Tokopedia. Shopee's online store visits are superior than Tokopedia's, therefore online merchants believe that Shopee has a greater number of customers with the opportunity to make purchases. Tokopedia offers a better seller-to-buyer message reply function than Shopee, which means that Tokopedia provides message reply features that can help with the sales process, like chat navigation, feedback, automatic chat, and order details. Compared to Shopee, Tokopedia offers greater seller-specific customer care, making it easier for sellers to receive prompt assistance from Customer Service. Shopee has to enhance seller-specific customer service in the person variable. Tokopedia wants to increase visits and add functionality that allows vendors and buyers to reply to each other's messages in order to provide more convenient services.

Table 13 Summary of Physical Means Variable Comparison

Shopee		Tokopedia		
Variable	Average	Variable	Average	Independent Sample T-Test Results
X.6.1	3.92	Y.6.1	3.99	There is no difference
X.6.2	3.99	Y.6.2	4.13	
X.6.3	3.86	Y.6.3	4.09	
X.6	3.92	Y.6	4.07	

There is no difference between the Shopee physical facility variable and the Tokopedia physical facility variable, according to the independent sample t-test results, yet the Tokopedia physical facility variable is superior to the Shopee physical facility variable. The average preference score for the physical facility variable on Shopee is 3.92, whereas the average preference score for the physical facility variable on Tokopedia is 4.07. Tokopedia offers sellers shop decoration

templates that are superior in terms of appearance and design than Shopee, which implies that Tokopedia offers displays and designs for these templates that may satisfy sellers' desires for making their stores appealing. Tokopedia's shop menu display is superior to Shopee's. This indicates that the presentation on Tokopedia, as opposed to Shopee, can pique sellers' interest in the show with the dominating green color. Tokopedia's layout for all seller features is superior to Shopee's, which indicates that Tokopedia's layout is more user-friendly, understandable, and conducive to seller comfort than Shopee's. Shopee has to enhance its services for seller feature layout, store menu display, and store decoration template display and design in terms of physical facilities. Tokopedia must continue to maintain and enhance the services it has already offered to sellers.

Shopee		Tokopedia		Indonondont Comple T. Test Degults
Variable	Average	Variable	Average	Independent Sample T-Test Results
X.7.1	4.16	Y.7.1	4.12	
X.7.2	4.19	Y.7.2	4.25	There is no difference
X.7.3	4.14	Y.7.3	4.26	
X.7	4.16	Y.7	4.21	

 Table 14 Summary of Process Variable Comparison

According to the findings of the independent sample t-test, there is no difference between the Tokopedia and Shopee process variables, however the Tokopedia process variable is superior than the Shopee process variable. This is demonstrated by the average preference scores of 4.16 for the process variable at Shopee and 4.21 for the process variable at Tokopedia. If someone wishes to open a shop, it would be preferable to do it on Shopee first because it is more convenient to do so there than on Tokopedia. The convenience of withdrawing the seller's balance from Tokopedia to the seller's account is superior to that of Shopee, and it is believed that the process may be completed swiftly and without any issues. Because handling orders on Tokopedia is easier than it is on Shopee, vendors believe that managing orders on Tokopedia is simple. Shopee has to enhance its services in terms of making it simpler to withdraw seller balances and handle orders under the process variable. Tokopedia needs to enhance services by making it simpler to shop at online retailers. The research subject of online sellers in the two marketplaces has not been done much. Existing research generally examines product buyers from both marketplaces.

4. Conclusion

Based on the findings of the data analysis and discussion, the average value of the online seller's opinion of Shopee is 3.79, and it can be deduced that the seller receives good service quality from Shopee. The average value of the online seller's opinion of Tokopedia is 4.01, and it can be inferred that the seller received satisfactory service from Tokopedia. Three variables—product, price, and place variables—show differences in the independent sample t-test of seller perceptions at Shopee and Tokopedia. The promotion variable, people, physical facilities, and procedures are the other four factors that do not alter. Shopee excels in the people variable, while Tokopedia excels in the product, price, site, promotion, physical facilities, and process factors, according to the average perceived value of each variable. Overall, Tokopedia outperforms Shopee in terms of

the services it offers to merchants. The research subject of online sellers in the two marketplaces has not been done much. Existing research generally examines product buyers from both marketplaces.

REFERENCES

- S. N. L. Nalini, "Dampak Dampak covid-19 terhadap Usaha MIkro, Kecil dan Menengah.," *JESYA (urnal Ekon. Ekon. Syariah)*, vol. 4, no. 1, pp. 662–669, 2021, doi: https://doi.org/10.36778/jesya.v4i1.278.
- [2] T. Taufik and E. A. Ayuningtyas, "Dampak Pandemi Covid 19 Terhadap Bisnis Dan Eksistensi Platform Online.," J. Pengemb. Wiraswasta, vol. 22, no. 1, p. 21, 2020, doi: https://doi.org/10.33370/jpw.v22i01.389.
- [3] Erlinda Muslim, Rizka Amalia Liputo, and Ghassani Shabrina, "Perancangan Total Performance Scorecard Dengan Mengintegrasikan Personal Balanced Scorecard Dan Organizational Balanced Scorecard (Studi Kasus: Departemen Corporate Development Perusahaan Maintenance Repair and Overhaul)," J. Sist. Tek. Ind., vol. 21, no. 1, pp. 64–73, 2019, doi: 10.32734/jsti.v21i1.904.
- [4] T. S. Suranto, S., Ambarwati, A., Suparti, S., Sofyan, A., Agustina, L., Bella, S. S., ... & Zuhri, "Pelatihan Digital Marketing Untuk Meningkatkan Pemasaran Produk Jamur Tiram Dimasa Pandemi Covid-19 Pada UMKM Gading Sukowati, Sragen.," *Abdi Psikonomi*, pp. 175-180., 2021.
- [5] B. Febrianti, K. Kussudyarsana, and M. H. Maimun, "The Effect of Social Media, Packaging, and Product Quality on MSME Sales Performance," *Proc. Int. Conf. Econ. Bus. Stud.* (*ICOEBS 2022*), vol. 655, no. Icoebs, pp. 75–80, 2022, doi: 10.2991/aebmr.k.220602.011.
- [6] M. Suranto, S., & Djunaidi, "Marketing Development Model of Goyor Woven Fabric Increases Consumer Buying Interest in Pandemic Covid-19 Era: Study at Sragen Goyor Industry Center.," J. Ilm. Tek. Ind., vol. 20, no. 1, pp. 61-70., 2021.
- [7] D. Hernikawati, "Analisis Dampak Pandemi COVID-19 terhadap Jumlah Kunjungan pada Situs E-Commerce di Indonesia Menggunakan Uji T Berpasangan.," J. Stud. Komun. Dan Media, vol. 25, no. 2, p. 191, 2021, doi: https://doi.org/10.31445/jskm.2021.4389.
- [8] B. E. Putro and A. Ilmaniati, "The Effectiveness Model of Knowledge Sharing in Business Innovation to Improve the Performance of Micro Small and Medium Enterprises," *Jurnal Ilmiah Teknik Industri*, vol. 19, no. 1. pp. 39–46, 2020. doi: 10.23917/jiti.v19i1.10231.
- [9] Nurlela, "E-Commerce, Solusi di Tengah Pandemi COVID-19," *J. Simki Econ.*, vol. 4, no. 1, pp. 47–56, 2021.
- [10] Iprice Insights. The Map of E-Commerce in Indonesia., 2022.
- [11] H. Rahmayanti, D., Widianto, E., Arief, I., Zahra, A. F., & Ahmad, "Factors Affecting Customer Satisfaction In E-Commerce.," J. Ilm. Tek. Ind., vol. 20, no. 2.
- [12] S. Yusuf and A. F. Hadining, "Use of Modified Technology Acceptance Models to Ebusiness for MSMEs," J. Sist. Tek. Ind. Vol, vol. 23, no. 2, pp. 190–203, 2021, [Online]. Available: https://talenta.usu.ac.id/jsti/article/view/6298
- [13] S. K. Tomasoa., "Analisis Pengaruh Kualitas Pelayanan Harga terhadap Loyalitas Pelangganpada Jasa Penerbangan PT. Sriwijaya Air Ambon," vol. 15, no. 2, pp. 126–143, 2015.
- [14] R. D. Kusumawati, T. Oswari, R. B. Utomo, and V. Kumar, "The influence of 7P's of marketing mix on buying intention of music product in Indonesia," *Procedia Eng.*, vol. 97, pp. 1765–1771, 2014, doi: https://doi.org/10.1016/j.proeng.2014.12.328.
- [15] A. Erdmann and J. M. Ponzoa, "Digital Inbound Marketing: Measuring the economic Performance of Grocery E-Commerce in Europe and the USA.," *Technol. Forecast. Soc. Change*, p. 162, 2021, doi: https://doi.org/10.1016/j.techfore.2020.120373.

- [16] S. D. Saraswati, "Rancang Bangun Prototipe Knowlegde Management System Untuk Mendukung Knowledge Sharing Dengan Model Seci: Studi Kasus PT. Republika Media Mandiri Jakarta.," J. Pilar, vol. 14, no. 1, pp. 75–82, 2018.
- [17] H. Ketan and M. Nassir, "Aluminium Hot Extrusion Process Capability Improvement Using Six Sigma," Adv. Prod. Eng. Manag., vol. 11, no. 1, pp. 59–69, 2016, doi: 10.14743/apem2016.1.210.
- [18] Y. Wang *et al.*, "Comparing the Performance of Approaches for Testing the Homogeneity of Variance Assumption in One-Factor ANOVA Models.," *Educ. Psychol. Meas.*, vol. 77, no. 2, pp. 305–329, Apr. 2017, doi: 10.1177/0013164416645162.
- [19] B. Gerald, "A Brief Review of Independent, Dependent and One Sample t-test," Int. J. Appl. Math. Theor. Phys., vol. 4, no. 2, p. 50, 2018, doi: 10.11648/j.ijamtp.20180402.13.
- [20] I. M. A. Suwandana, "Pengaruh Faktor-Faktor Kualitas Pelayanan Terhadap Kepuasan Nasabah Pada Koperasi Serba Usaha Dalem Kahyangan Dukuh Desa Adat Kerobokan Di Kuta Utara, Badung," *Semnas Iib Darmajaya*, vol. 1, no. 17, pp. 586–600, 2017.
- [21] L. Ika, "Teknik Pengambilan Sampel Purposive dan Snowball Sampling," J. Kajian, Penelit. Pengambilan Pendidik. Sej., vol. 6, no. 1, pp. 33–39, 2021.
- [22] Tokopedia, "Praktis Proses Pesanan Pembeli melalui Aplikasi Tokopedia Seller," *seller.tokopedia.com*, 2022.