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## FACTORS AFFECTING CUSTOMER VALUE AND THEIR EFFECT ON CUSTOMER LOYALTY IN ONLINE ELECTRONIC PRODUCTS SHOPPING

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### ABSTRACT

Technological developments and the Covid-19 pandemic are accelerating consumer adoption of online shopping. On the other hand, increasing competition between online shopping platforms and low consumer loyalty have triggered the phenomenon of consumers moving between platforms. This study examines the factors influencing customer value and its effect on customer loyalty. This study uses the Stimuli-Organism-Response framework as the theoretical basis for its explanation. The analytical method used is multiple regression with SPSS software. Data were collected by purposive sampling of 268 respondents who shopped for electronic products online. The results show that the factors that positively and significantly affect customer value are layout and functionality, financial security, service quality, price and affordability, brand image, and data privacy. Furthermore, this study also found that customer-perceived value affects customer loyalty in a significantly positive manner. The results of this study contribute to the existing literature related to online shopping and provide insight for online shopping platform players in developing their businesses.

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### INTRODUCTION

Technological advances that have triggered the development of the internet have shifted the face-to-face shopping process to online and have encouraged how consumers adopt online shopping methods. This is reflected in the 97.3 percent increase in online shopping platform users in Indonesia over the last three years, from 70.1 million in 2017 to 138.1 million in 2020, and is projected to reach 221 million in 2025 (Statista,

2021a). This phenomenon is getting more robust as the Covid-19 pandemic spreads. According to a survey conducted by Rakuten Insight in May 2020 of consumers in Indonesia, as many as 55 percent of consumers make more online purchases after the Covid-19 pandemic than before, and only 9 percent of the customers do not shop online (Statista, 2021).

Despite the significant growth in online shopping, there is also rapid competition in the online shopping platform industry. This is reflected in the position of online shopping platforms in Indonesia, which has shifted based on the number of customer web visits between the leading players in Indonesia from SimilarWeb (iPrice Insights, 2021). This condition indicates the phenomenon of switching and less strong customer loyalty to a platform. One way that online shopping platforms can do to increase return visits and trigger repeat purchases is to focus on the quality factor of the site so that it enriches the online shopping experience (Azam et al., 2012). According to Tankovic and Benazic (2018), customer loyalty in online shopping is influenced by the virtual servicescape, with perceived value as mediating the influence. There are various aspects of the virtual servicescape, namely aesthetic appeal, layout and functionality, and financial security. According to Pham and Nguyen (2019), the virtual servicescape that affects perceived value is assessed from security, service quality, visual appearance, price, and brand image.

Until now, research examining the factors of perceived value and customer loyalty is still limited, especially in the context of Indonesian consumers. In addition, previous research still includes a limited customer value factor, not yet comprehensive. The existence of this research gap, this research will include various aspects that become factors of customer value more comprehensively, namely aesthetic appeal, layout and functionality, financial security, service quality, price and affordability, brand image, and data privacy. Furthermore, this study will also examine the effect of customer value on customer loyalty. According to data from PPRO, the product categories that have the largest market share in the Indonesian e-commerce market are electronic products, with a market share value of 17 percent (Statista, 2021b) so the scope of this research will be limited to the category of electronic products. The results of this study can contribute to the existing literature related to online shopping and provide direction for platform players in developing their business strategies for electronic products.

## **LITERATURE REVIEW**

### **Aesthetic Appeal**

Aestheticsoften is used to indicate a design that refers to color and layout as the visual appeal of a site (Lindgaard et al., 2006). According to Wang et al. (2011), in an online context, Aesthetic Appeal, an online shopping platform represents how different elements and attributes are combined to produce a beautiful overall impression. The Aesthetic Appeal dimension corresponds to the concept of expressive aesthetics which refers to the creativity, attractiveness, and originality of the site (Wang et al., 2011), which is also closely related to the perceived meaning of a site (Wang et al., 2010). Aesthetic treatment on the site requires guidelines that are not intended to limit the creativity of designers but to determine criteria so that the appearance of the site becomes more effective (Robins & Holmes, 2008).

### **Layout and Functionality**

Classical aesthetics or layout refers to the regularity and clarity of design which is emphasized by the arrangement of elements that determine the order and clarity of the site (Cai & Xu, 2011). Wang et al. (2010) argue that the Layout and Functionality or aesthetic formality of platform sites does not represent detailed service information, but can represent how information and different design attributes are displayed. Good or bad the design of the layout of a site, will facilitate or hinder the cognitive processing of online information. The layout and functionality of the site, which is well-organized and easy to understand, is expected to reflect the advantages of platform services.

### **Financial Security**

According to Hsin Chang and Chen (2009), Financial Security on the platform refers to consumers' perceptions of the security of transactions, including payment processes and tools. Concerns about the security of transacting online are the main reason consumers avoid shopping online because of the risk of submitting sensitive information such as credit card numbers. Transaction security is an important issue facing the platform which requires the platform to adopt a secure transaction system to enhance the security of online purchases and create a clear privacy policy regarding the collection and disclosure of information to ensure the security of the transaction process (Lien et al., 2011).

### **Service Quality**

Service Quality in the context of an online shopping platform, it is the availability of a site to run an effective and efficient shopping service, as stated in the Service Quality model in an online context which was first proposed by research by Zeithaml et al. (2000). Aspects of Service Quality include reliability and customer service (Hsin Chang et al., 2009). Service Quality is one of the important determinants in increasing competitiveness (Yang & Jun, 2002), so many companies prioritize Service Quality over Product Quality (Ghobadian et al., 1994). A well-developed e-commerce site provides value to not only the products and services offered, but also value to the company, including from the aspect of return on investment (Sharma & Lijuan, 2015).

### **Price and Affordability**

Price is how much money is spent to obtain a product or service (Kim et al., 2012). Consumers build the perception of Price and Affordability in online shopping based on the comparison of prices offered by a seller with other sellers for the same product, so that a relatively higher price than other sellers will reduce the acquisition utility obtained by consumers. Price can also be associated with monetary value which is the value of the benefits obtained compared to similar alternative products (Sheth et al., 1991). The higher the monetary value, the higher the opportunity to make a purchase. If there are the same products with different prices, then consumers who are price sensitive will choose a lower price (Aruan & Felicia, 2019).

### **Brand Image**

Brand Image is the perception of the name of a platform as reflected in the association of platforms in consumer memory (Hsin Chang & Chen, 2008), which can arise from various sources such as consumer experience, marketing communication, and word of mouth (Romaniuk & Sharp, 2003). A platform with a well-known brand image

influences consumer purchasing decisions by influencing their trust in a platform (Fam et al., 2004). Platforms with solid brands can ensure consumers that the business is reliable and trusted and save consumers time because consumers know what to expect from the site and do not have to look for alternative sites (Hashim & Murphy, 2007). The brand image of an online store can significantly reduce risks related to finances, time, and products (Aghekyan-Simonian et al., 2012). The image of an online store or retailer can positively influence perceptions of utilitarian value and hedonic value (Chang & Tseng, 2013).

### **Data Privacy**

Privacy is the protection of personal information and can be reflected by how much trust is in the security of a platform in terms of interference from outside parties and information protection (Parasuraman et al., 2005). Perceived Security shows how strongly potential consumers believe that an e-commerce platform is safe for distributing sensitive information (Hsin Chang & Chen, 2009). Low Perceived Security is the leading cause of potential consumers not shopping online, related to perceptions of risk in channeling sensitive information to the internet. The quality of a site is determined by its ability to maintain the information its users provide (Madu & Madu, 2002). Keen (2000) states that a site that is safe and trustworthy has the characteristics of having a privacy policy, does not ask for too much information, has security technology that can protect user information, and gives site users choices to determine whether information can be shared with other parties. The risk of misuse of personal information causes many consumers who do not want to purchase products via the internet (Santouridis et al., 2012).

### **Perceived Value**

Perceived Value is the customer's perceived value based on a thorough evaluation of the benefits and sacrifices associated with the service (Jiang et al., 2015). Perceived value in the context of online shopping includes more benefits and fewer sacrifices for customers including quality, easy-to-use user interfaces, competitive prices, and time-saving (Wu et al., 2014). In online shopping, customers can easily find other alternatives (Hsin Chang & Wang, 2011). E-satisfaction, e-trust, and Perceived Value perceived by customers have an essential role in creating repurchase intentions or e-loyalty (Miao et al., 2021). Perceived Value reduces the customer's desire to switch to another provider so it affects loyalty (Anderson & Srinivasan, 2003).

The concept of expressive aesthetics shows a significant influence and interaction effect on the value of the shopping process and shopping enjoyment (Cai & Xu, 2011). Cho and Hyun's (2016) findings show that how interactive a platform is and its aesthetics positively affect Perceived Value. The positive influence created by the attractive appearance of the site from an aesthetic aspect can play a role in improving user performance (Tractinsky et al., 2000). A high aesthetic treatment will result in a high credibility rating on the site (Robins & Holmes, 2008). Based on previous research, the following hypothesis was developed.

H1: Aesthetic Appeal has a positive influence on Perceived Value in shopping for electronic products online

Research conducted by Park and Kim (2006). found that satisfaction with getting information was significantly and positively influenced by the quality of the user

interface. Cai and Xu (2011) found that classical aesthetics or Layout and Functionality had a positive significant effect on the value of the shopping process and shopping enjoyment. Regardless of the presence or absence of purchase objectives, the effect of Layout and Functionality is significant on perceived online service quality (Wang et al., 2010). Based on previous research, the following hypothesis was developed.

H2: Layout and Functionality has a positive influence on Perceived Value in shopping for electronic products online

Perceptions of security have a significant and positive effect on satisfaction with getting information (Park & Kim, 2006). Security which includes Financial Security has a significant and positive effect on customer perceived value (Hsin Chang & Wang, 2011). Financial Security included in the Service Quality section in the online context has a significant positive influence on Perceived Value (Lien et al., 2011). Based on previous research, the following hypothesis was developed.

H3: Financial Security has a positive influence on Perceived Value in online shopping for electronic products

Service Quality in the form of utilitarian and hedonic quality has a positive and significant influence directly or indirectly on Customer Loyalty (Garepasha et al., 2020). Research conducted by Demir et al. (2020) shows that Service Quality directly affects Perceived Value in a positive and significant way. Service Quality has a significant and positive effect on customer satisfaction which then affects Perceived Value (Hsin Chang et al., 2009). Research conducted by Zameer et al. (2015) shows that Service Quality has a significant and positive effect on Perceived Value. Based on previous research, the following hypothesis was developed.

H4: Service Quality has a positive influence on Perceived Value in shopping for electronic products online.

Perceived Price has a significant negative effect on Perceived Value and Purchase Intentions (Kim et al., 2012). Based on research conducted by Chu and Lu (2007), Perceived Price significantly and negatively affects Perceived Value. Monetary Value significantly and positively affects behavioral intentions (Pura, 2005). Based on previous research, the following hypothesis was developed.

H5: Price and Affordability have a positive influence on Perceived Value in shopping for electronic products online.

Brand Image can significantly affect Trust which then affects Perceived Value, so Brand Image needs to be improved to increase the long-term value of consumers (Chiang & Jang, 2007). Reputation, as measured by the name and perception of the brand, has a significant positive effect on Perceived Value (Sullivan & Kim, 2018). Pham and Nguyen's research (2019) found that Brand Image has a significant effect on Perceived Value. Based on previous research, the following hypothesis was developed.

H6: Brand Image has a positive influence on Perceived Value in shopping for electronic products online

Perceived Security formed from Internet Privacy Concern and Privacy/Security Policy can significantly increase Trust which then affects Perceived Value positively and significantly (Ponte et al., 2015). Security related to the security of sensitive information in online transactions and information regarding payments has a significant effect on Perceived Value (Fuentes-Blasco et al., 2010; Jiang et al., 2015). Privacy has a significant effect on Perceived Service Quality which then has a significant positive

effect on Perceived Value (Pearson et al., 2012). Research conducted by Santouridis et al. (2012) found that Privacy which is a component of E-Service Quality (ES-QUAL), has a significant effect on Perceived Value. Security has a significant effect on Perceived Value (Pham et al., 2019). Privacy reflected from a site does not spread personal information or shopping behavior significantly affects Perceived Value (Zehir et al., 2014). Based on previous research, the following hypothesis was developed.

H7: Data Privacy has a positive influence on Perceived Value in shopping for electronic products online

### **Customer Loyalty**

Customer Loyalty, or in the context of online shopping called e-loyalty, is defined as a positive attitude of customers toward online shopping platforms that encourage repeat purchases (Anderson & Srinivasan, 2003). According to Yang and Peterson (2004), customer loyalty is the customer's intention to continue doing business with a company or service provider and their tendency to recommend that company or service provider to others. Loyalty has two dimensions, namely Attitudinal Loyalty and Behavioral Loyalty (Gremler, 1995, as cited in Anderson & Srinivasan, 2003). Rauyruen and Miller (2007) define Attitudinal Loyalty as the psychological level of customer attachment to service providers and customer advocacy attitudes towards service providers. Behavioral Loyalty is a customer's willingness to repurchase a service or product from a service provider and maintain a relationship with that service provider. Attitudinal Loyalty represents the customer's long-term commitment to the organization or service provider (Shankar et al., 2003), while Behavioral Loyalty represents the effect of loyalty, namely repeat purchases (Jaiswal & Niraj, 2011).

Perceived Value has a positive effect on Customer Loyalty (Yang & Peterson, 2004). Based on the research of Wu et al. (2014), Perceived Value has a significant influence on repurchase intentions. Research conducted by Jiang et al. (2015) found that Perceived Value has a significant and positive direct influence on Customer Loyalty. There is a significant and positive relationship between Perceived Value and loyalty intentions so when the Perceived Value value increases, loyalty intentions also increase (Zehir et al., 2014). Based on previous research, the following hypothesis was developed.

H8: Perceived Value has a positive influence on Attitudinal Loyalty in shopping for electronic products online

H9: Perceived Value has a positive influence on Behavioral Loyalty in shopping for electronic products online

### **RESEARCH METHODS**

The subjects of this research are Indonesian consumers who have shopped for electronic products online. The sample from this study was selected using a purposive sampling method with screening questions, namely, having purchased electronic products online. This research is quantitative in nature using data collection with a survey method conducted on Google Form. 268 respondents filled out the questionnaire in full from November to December 2021. The scale used was a seven-point Likert scale with a scale of (1) to strongly disagree to (7) to strongly agree. Questionnaire questions refer to Tankovic and Benazic (2018) and Pham and Nguyen (2019) which were then translated from English to Indonesian.

Of the total respondents, 35.1 percent were men and 64.9 percent were women. The respondents ranged from 15 to 70 years old with the majority of respondents aged between 20 to 30 years old, which amounted to 66.4 percent of the total respondents. Respondents whose last education was Senior High School and S1 were 21.3 percent and 61.2 percent, respectively.

## RESULTS AND DISCUSSION

To test the validity, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy test is used with a value above 0.5, the Bartlett Test of Sphericity with a 5% significance provision (Hair et al., 2018), and Component Analysis with the above Factor Loading provisions. 0.5 tested per variable (Oliveira et al., 2021).

Table 1. Research Variables

Variable	Factor Loading
<b>Aesthetic Appeal</b>	
The way this platform displays its products is quite interesting	0.861
I like the look of this platform	0.795
This platform has a look that dares to be different	0.821
I think this platform is very entertaining	0.839
The enthusiasm of this platform is enough to get me excited	0.822
<b>Layout and Functionality</b>	
Easy to navigate on the platform	0.887
Navigation in this platform has a clear flow	0.882
This platform is easy to use	0.896
This platform is user-friendly	0.879
Technical details about the product can be accessed easily	0.845
This platform is suitable for me	0.848
I feel this platform captivates me	0.726
<b>Financial Security</b>	
The payment process takes a fast time	0.755
Paying for product orders can be done easily	0.831
The process of paying for product orders does not require a lot of information	0.846
When making purchases on this platform, I believe in transaction security procedures.	0.866
Overall, the security of this platform looks good	0.823
<b>Service Quality</b>	
Contact information that can be reached is easy to find on this platform.	0.801
The platform provides various contact lines (FAQ, email, phone number, etc.)	0.814
There is adequate customer policy on this platform	0.844
When I have a problem with my order, the customer service is willing to help me	0.748
The platform provides confirmation of order information via email/phone	0.703
This platform allows me to cancel my order	0.621
Platform can help me fix my booking error	0.741

<b>Price and Affordability</b>	
The price of the products/services of this platform is not expensive	0.867
The prices of the products/services offered on the platform are still quite reasonable	0.920
Prices of products/services offered on the platform are affordable	0.917
The prices of the products/services offered on the platform are still quite appropriate	0.900
This platform provides discounted prices	0.725
<b>Brand Image</b>	
This platform has a reliable brand image	0.836
This platform has a good brand reputation	0.834
This platform brand is quite famous	0.833
Many people already know this platform brand	0.783
This brand platform is interesting	0.825
<b>Data Privacy</b>	
The platform does not ask for too much personal information	0.689
I trust this platform will not use personal information without my permission	0.877
This platform implements security procedures to protect its users	0.925
These platforms usually ensure that information about their transactions is protected from cybercrimes	0.908
Availability of privacy or security statement can be easily seen on this platform	0.917
This platform has a good privacy policy or security policy	0.921
<b>Perceived Value</b>	
This platform provides great economic value	0.714
The goods/services I buy from this platform are good	0.827
When I make purchases on the platform, I save time	0.872
I find it easy to shop on this platform	0.875
The effort I have to expend to make a purchase on this platform is minimal	0.851
<b>Attitudinal Loyalty</b>	
I like using this platform	0.821
For me, this is the best retail platform to make transactions	0.870
I believe this is my favorite buying and selling platform	0.883
I will recommend this platform to others	0.908
I will recommend this platform to my friends	0.899
I will invite people to do business with this platform	0.724
<b>Behavioral Loyalty</b>	
I rarely think about switching to another platform	0.879
As long as this kind of service continues, I will not switch to another platform	0.891
I try to always use this platform when going to buy something	0.914
My chances of using this platform again are quite high	0.867
When I want to make a purchase, this platform is my first choice	0.874

Source: Processed by Researchers (2022)



Reliability was measured using Cronbach's alpha with conditions above 0.7 (Hair, 2019). Validity and reliability testing was carried out using SPSS 26. The results of the tests contained in Tables 1 and 2 show that there are no validity and reliability problems, so no questions are eliminated.

Table 2. Validity and Reliability Test

Variable	KMO	Bartlett	Cronbach
Aesthetic Appeal	0.802	0.000	0.880
Layout and Functionality	0.903	0.000	0.935
Financial Security	0.813	0.000	0.878
Service Quality	0.877	0.000	0.871
Price and Affordability	0.881	0.000	0.915
Brand Image	0.826	0.000	0.879
Data Privacy	0.905	0.000	0.935
Perceived Value	0.852	0.000	0.883
Attitudinal Loyalty	0.881	0.000	0.919
Behavioral loyalty	0.875	0.000	0.927

Source: Processed by Researchers (2022)

The research hypothesis was tested using the Stimuli–Organism–Response (S–O–R) framework and linear regression using SPSS 26. The research model is shown in Figure 1. The regression results are shown in Tables 3, 4, and 5. Multicollinearity testing shows the Variance Inflation value. Factor (VIF) below ten, which indicates that there is no collinearity problem (Hair, 2019). The autocorrelation test shows the Durbin-Watson statistic that is close to 2, so there is no autocorrelation problem (Saunders et al., 2015).

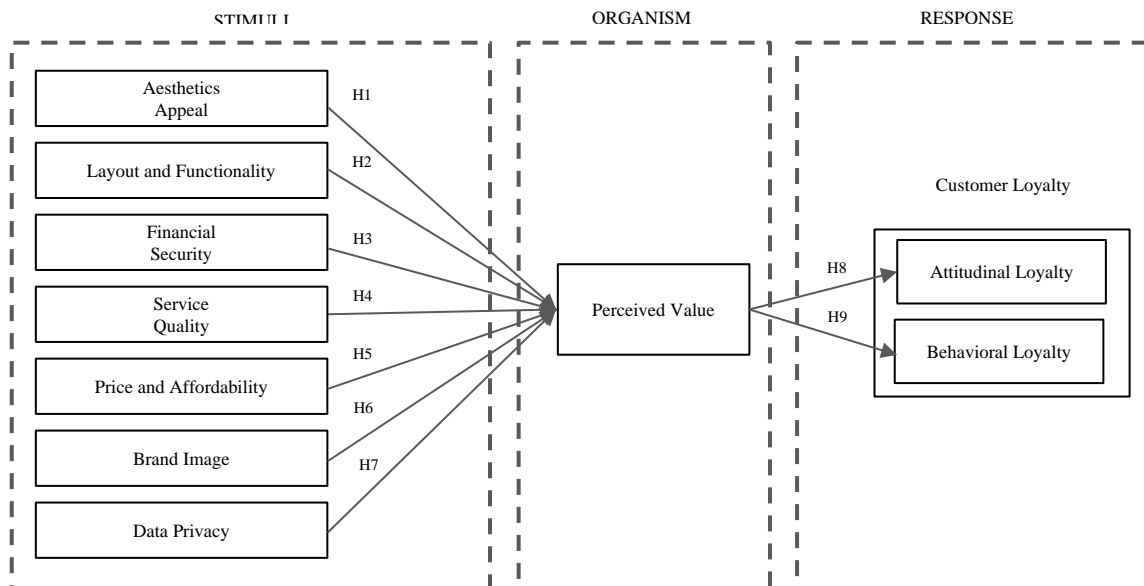


Figure 1. Research Model

Source: Processed by Researchers (2022)

Based on the regression results in Table 3, Perceived Value is positively and significantly influenced by Layout and Functionality ( $\beta = 0.219$ ;  $p < 0.01$ ; H2 supported), Financial Security ( $\beta = 0.166$ ;  $p < 0.01$ ; H3 supported), Service Quality ( $\beta = 0.116$ ;  $p < 0.01$ ; H4 supported), Price and Affordability ( $\beta = 0.100$ ;  $p < 0.05$ ; H5 supported), Brand Image ( $\beta = 0.299$ ;  $p < 0.01$ ; H6 supported), and Data Privacy ( $\beta = 0.132$ ;  $p < 0.01$ ;

H7 supported). On the other hand, Aesthetic Appeal has a significant but negative effect on Perceived Value ( $\beta = -0.097$ ;  $p < 0.05$ ; H1 is not supported). The regression has an R square of 0.726 and a significant F-test at a significance level of 1 percent, indicating that the model used has a good fit for the data.

Table 3. Regression with Dependent Variable Perceived Value

	$\beta$	t	VIF
Aesthetic Appeal	-0.097**	-2.437	2.269
Layout and Functionality	0.219***	4.109	3.293
Financial Security	0.166***	3.085	2.858
Service Quality	0.116***	2,644	2,655
Price	0.100**	2.409	2.127
Brand Image	0.299***	5.515	2.424
Data Privacy	0.132***	4.201	2,071
Constant	0.363	1.551	
N	268		
Adjusted R square	0.726		
Durbin-Watson	1,944		

Source: Processed by Researchers (2022)

Perceived Value has a positive and significant influence on the two aspects of Customer Loyalty used, namely Attitudinal Loyalty in Table 4 ( $\beta = 0.771$ ;  $p < 0.01$ ; H8 is supported) and Behavioral Loyalty in Table 5 ( $\beta = 0.726$ ;  $p < 0.01$ ; H9 is supported) . The regression has an R square of 0.417 and 0.254, with a significant F-test at a significance level of 1 percent, indicating that the model used has a good fit to the data.

Table 4. Regression with Dependent Variable Attitudinal Loyalty

	$\beta$	t	VIF
Perceived Value	0.771***	0.056	1,000
Constant	1,271***	3.789	
N	268		
Adjusted R square	0.417		
Durbin-Watson	2.125		

Source: Processed by Researchers (2022)

Table 5. Regression with Dependent Variable Behavioral Loyalty

	$\beta$	t	VIF
Perceived Value	0.726***	0.076	1,000
Constant	1.373***	2,987	
N	268		
Adjusted R square	0.254		
Durbin-Watson	2.238		

Source: Processed by Researchers (2022)

The results of this study found that Aesthetic Appeal has a significant negative effect on Perceived Value so H1 is not supported. These results are not in accordance with previous research (Cai & Xu, 2011; Cho & Hyun, 2016; Robins & Holmes, 2008; Tractinsky et al., 2000). Research conducted by Wang et al. (2011) explains that the aesthetics dimension describes the aesthetic nature of the platform as an "evil angel" which is potential, attractive, beautiful but has hidden properties that are dangerous if

not known. Although the higher the aesthetic the more beautiful the perception of the platform, platform planners and designers should be aware that at some level, it can have a negative impact.

Layout and Functionality has a significant positive effect on Perceived Value and supports H2. These results are supported by previous findings (Cai & Xu, 2011; Park & Kim, 2006; Wang et al., 2010). Platforms that have an organized and clear Layout and Functionality design can represent information and are expected to reflect the advantages of platform services (Cai & Xu, 2011; Park & Kim, 2006; Wang et al., 2010). Based on these results, online shopping platforms need to ensure user convenience in navigating and having a clear flow.

Financial Security significantly influences Perceived Value positively and supports H3. This finding is supported by previous findings (Hsin Chang & Wang, 2011; Lien et al., 2011; Park & Kim, 2006). Platforms that adopt a robust security system in transactions will affect consumer intentions because secure payments are essential in online shopping (Hsin Chang & Chen, 2009; Lien et al., 2011). These results indicate that the platform needs to have a safe, easy, and fast payment process to increase Perceived Value.

Service Quality has a positive significant effect on Perceived Value and supports H4. This supports the findings of previous studies (Demir et al., 2020; Garepasha et al., 2020; Hsin Chang et al., 2009; Zameer et al., 2015). Sites that have effective and efficient Service Quality can increase competitiveness, as well as consumer value for the site (Sharma & Lijuan, 2015; Yang & Jun, 2002; Zeithaml et al., 2000). According to these results, online shopping platforms need to have fast service response times, have availability of contact channels that can always be contacted, availability of clear service information, and easy order cancellation services to increase the value of service quality to consumers.

Price and Affordability has a positive significant effect on Perceived Value and supports H5. This supports the findings of previous research (Aruan & Felicia, 2019; Chu & Lu, 2007; Kim et al., 2012; Pura, 2005). Sites that have affordable prices and are cheaper than competitors can increase Perceived Value and purchase intentions (Reibstein, 2002; Sheth et al., 1991). To increase Perceived Value, online shopping platforms can apply discounts and competitive prices compared to competitors.

Brand Image has a positive significant effect on Perceived Value and supports H6. These results support the findings of previous research (Pham et al., 2019; Sullivan & Kim, 2018). An online shopping platform that has a strong brand image can increase consumer confidence in the platform and can reduce the financial, product, and time risks of consumers (Aghekyan-Simonian et al., 2012; Fam et al., 2004; Hashim & Murphy). , 2007). These results indicate that to increase Perceived Value, online shopping platforms must improve the brand's reputation so that consumers can trust the platform.

Data Privacy significantly positively affects Perceived Value and supports H7. These findings support the results of previous studies (Fuentes-Blasco et al., 2010; Jiang et al., 2015; Pham et al., 2019; Santouridis et al., 2012; Zehir et al., 2014). Online shopping platforms that are unable to maintain data privacy can reduce consumer confidence and can lead to increased perceptions of the risk of shopping on these platforms, thereby reducing consumers' desire to shop on these platforms (Hsin Chang & Chen, 2009;

Santouridis et al., 2012). Based on these results, online shopping platforms need to limit the information requested from consumers and increase transparency regarding data privacy policies to consumers to increase Perceived Value.

Perceived Value provide a significant positive influence on Customer Loyalty, both in terms of Attitudinal Loyalty and Behavioral Loyalty so it supports H8 and H9. These results support the findings of previous studies (Jiang et al., 2015; Wu et al., 2014; Yang & Peterson, 2004; Zehir et al., 2014). In shopping online, it is effortless for customers to find other alternatives, so when the perceived value is low, customers will be more likely to switch to other service providers (Anderson & Srinivasan, 2003; Hsin Chang & Wang, 2011).

## CONCLUSION

The results of this study prove the application of the Stimuli–Organism–Response (S–O–R) framework (Mehrabian and Russell, 1974). This research contributes by providing empirical evidence for the factors that determine Perceived Value and the influence of Perceived Value on Customer Loyalty by looking at the broader aspect of the online shopping platform, thus enabling the platform to make comprehensive improvements from the overall aspect in increasing Perceived Value, and Customer Loyalty, especially in electronic products.

This study shows that six factors positively influence Perceived Value, namely Layout and Functionality, Financial Security, Service Quality, Price and Affordability, Brand Image, and Data Privacy. Loyalty from consumers, as measured in terms of Attitudinal and Behavioral, is positively influenced by Perceived Value. Based on the results of this study, online shopping platforms need to improve these aspects, which can increase Perceived Value, which also affects Customer Loyalty.

This study has several limitations. First, this study does not display images that can be stimuli for respondents in assessing various aspects of the online shopping platform, so there is a possibility that respondents do not remember fully about the aspects being assessed. Further research can display images of the aspects assessed for some of the leading online shopping platforms used by the Indonesian people. Second, as many as 91.8 percent of respondents gave an aspect assessment for the two leading online shopping platforms in Indonesia. Future research can use quota sampling to ensure that assessments can be made for various online shopping platforms more evenly.

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