

Understanding how customers shape purchase decisions in the e-commerce marketplace

Indah Fatmawati¹*, Abid Abiyyu Fathin², Pensri Jaroenwanit³

¹Doctoral of Management, Postgraduate Program, Universitas Muhammadiyah Yogyakarta, Indonesia

²Department of Management, Faculty of Economics and Business, Universitas Muhammadiyah Yogyakarta, Indonesia

³Department of Marketing. Faculty of Business Administration and Accountancy, Khon Kaen University, Thailand

Abstract

Consumer preferences for online purchases are increasing during the pandemic. This paper aims to understand how customers perceive their values regarding online shopping. Our study hypothesized that website design attractiveness, e-commerce marketplace reputation, and perceived ease of transaction are the predictors for customer-perceived value, influencing the online purchase decision. This study employs a survey with a total sample of 225 respondents of Indonesian marketplace consumers. Data is gathered through the distribution of Google-forms questionnaires and analysed using the Structural Equation Modelling (SEM) method. The findings revealed a significant direct relationship between the website's design attractiveness, e-commerce marketplace reputation, and perceived ease of transaction with the customer's perceived value and between perceived value and the purchase decision. This study also found mediation effects of perceived value on the relationships between website design attractiveness and ecommerce marketplace reputation on online purchase decisions. Considering the importance of website design attractiveness, e-commerce marketplace reputation, perceived ease of transaction on customer-perceived value, and the role of customer-perceived value on online purchase decisions, this study recommends companies to strengthen their marketing strategies related to those three predictors of customer-perceived value. A good perceived value is expected to increase customers' online purchasing probability.

Keywords:

customer-perceived value; e-commerce marketplace reputation; online purchase decision; perceived ease of transaction; website design attractiveness.

JEL Code: M31

Received September 21 2022; Received in revised form April 12 2023; Accepted April 17 2023; Available online April 30 2023

*Corresponding author Email: indahfatmawati@umy.ac.id

© Indah Fatmawati, Abid Abiyyu Fathin, and Pensri Jaroenwanit. Published by Fakultas Ekonomi Universitas Negeri Surabaya, Indonesia. This article is published under Creative Commons Attribution License (Creative Commons: Attribution-Non Commercial 4.0 International) https://creativecommons.org/licenses/by/4.0/legalcode. BISMA (Bisnis dan Manajemen) Volume 15 Issue 2, April 2023 Page 229–254 E-ISSN 2549-7790, P-ISSN 1979-7192



To cite this document:

Fatmawati, I., Fathin, A.A., & Jaroenwanit, P. (2023). Understanding how customers shape purchase decisions in the e-commerce marketplace. *BISMA (Bisnis dan Manajemen)*, *15*(2), 229-254. https://doi.org/10.26740/bisma.v15n2.p229-254

Introduction

E-commerce development is exciting to discuss because the telecommunications industry will continue to develop in terms of service coverage and internet connection speed over time. Several research have used the concept of e-commerce. E-commerce as an economic exchange in which the parties exchange specified goods or services for a predetermined price and agree to a delivery schedule using electronic means over the internet. The exchange is then settled for delivery and payment of the goods or services under the contract (Dash & Kumar, 2013). Kumbhar (2011) defines ecommerce as the use of the internet and websites in conducting business transactions, and e-commerce digitally can facilitate commercial transactions between organisations and between organisations and individuals. Companies worldwide have introduced e-commerce and enjoy the benefits of increased operational efficiency and revenue generation by integrating e-commerce into value chain activities (Vaithianathan, 2010). With the increase in buying products through Internet media, electronic transactions or e-commerce activities will continue to develop (Ribeiro et al., 2009). Online shopping is complementary and does not replace traditional shopping methods because consumers still want to have a traditional shopping experience and will probably do online shopping to improve the shopping experience (Shi et al., 2019).

The determining factors of online purchase decisions should be a significant concern, especially for business people. People have relied on webbased commercial information for electronic commerce (e-commerce) transactions for all of their purchases. The existence of the internet makes purchase decisions more than traditionally made. The influence of the internet can change the purchase decision process compared to the era before the internet. Information becomes very easy to obtain to help consumers determine their purchase decisions (Flanagin et al., 2014).

Kotler et al. (2017b) suggest that an advertisement must have a distinctive appeal that can attract potential consumers in the products offered. One practical and trusted marketing technique for persuading potential customers is the attraction of website design. A website design is one way to realise the attractiveness of advertising. Research showed that website design attractiveness influences consumers' purchase decisions (Khanna & Wahi, 2018). The attractiveness of website design, in addition to creating a sense of

security that the vendor is a polite seller, also raises a sense of trust that the seller will fulfil what is promised (Broekhuizen et al., 2009; Najafi et al., 2017).

Reputation is an identity that accumulates values from community groups or consumers. Reputation is an image attached to the name or symbol of a product or company that gives a strong impression of the word. Reputation tends to reflect the competence and superiority of the product or company over its competitors. Sellers with a track record, positive feedback, and good testimonials are expected to strengthen consumer attitudes toward online purchase transactions (Molinillo et al., 2022). Reputation is a commonly held belief about the character or status of a person or thing. It is a collective trust rating based on recommendations or ratings from members of the social media community. Of course, in social e-commerce, buyers and sellers are critical members of the community and can interact with each other through social media platforms (Chuang et al. 2017).

The ease of shopping online makes potential consumers have no difficulty shopping online and show that ease of transaction is an essential factor in online shopping (Pikkarainen et al., 2004; Venkatesh & Davis, 2000). Apart from being easy to operate, this convenience can also reduce consumer effort in terms of costs, time, and energy in conducting transactions (Tran, 2021).

Consumers usually have many choices when making a purchase. Thus, they must choose what products and services meet their needs. Purchase decisions are thoughts in which individuals evaluate various options and decide on choices for a product from many possibilities. Purchase decisions are stages in the buyer's decision-making process where consumers perform a concrete action in choosing products and services to be purchased. The purchase decision is a problem-solving approach to human activities in buying a good or service to meet their wants and needs (Kotler et al. 2017b).

Customer-perceived value is a consumer's overall assessment of the utility of a product based on consumer perception of what is received and given. Customer-perceived value is a trade-off between customer perception, the product's quality or benefit, and the sacrifices made through the price paid. A customer-perceived value has a positive influence that will create customer loyalty. Customer-perceived value is an emotional bond between the customer and the manufacturer after the customer uses the company's products and services and finds that the product or service adds value (Alshibly, 2015).

This study aims to understand how customers form their perceived value by considering several concepts: website design attractiveness, e-commerce marketplace reputation, and perceived ease of transaction, which determine their online purchase decision. This study set is a leading marketplace in Indonesia. The study's novelty is the effect of customer-perceived value as a mediator between website design attractiveness, e-commerce marketplace reputation, and the perceived convenience of transactions and online purchase decisions that have not yet been discovered in any prior research in the same context.

Literature review

Technology acceptance model (TAM)

This research uses the theory of the Technology Acceptance Model (TAM) that analyses factors affecting an information system's acceptance. TAM explains that the perception of benefits and ease of transaction will affect the actual use of the technology. This theory determines computer users' behaviour in accepting or rejecting computer technology and is also suitable for other technology acceptance, such as e-commerce (Davis, 1986).

Customer-perceived value

A customer's perceived value is a thorough assessment of product usefulness based on the perception of what is received and given. Perception of value can be in the form of a low price. It can also be in the form of whatever the consumer wants from a product, the benefits received after making a purchase, or what the customer gets from the sacrifice (Lovelock, 2017).

Website design attractiveness

One form of marketing communication is advertising, which must have a distinctive attractiveness that can interest potential consumers in the products. It is interesting if the website's appearance and content can attract potential customers' interest. Website design attractiveness influences consumer perceptions of online shopping activities. An elegant website design will be attractive and satisfy visitors added that physical attractiveness could come from an attractive product or solid customer experience designs (Shergill, 2014; Kotler et al., 2017a). Website design attractiveness can also attract customers. In addition to bringing out a sense of security that the e-commerce marketplace is a trusted seller, website design attractiveness also brings up a sense of trust that the seller meets their promises. Therefore, the website design attractiveness is also related to a consumer attitude toward shopping online (Broekhuizen et al., 2009).

Website design quality is essential for an online store to attract customers buying interest. Website design as a direct interface with customers is indispensable in satisfying customers. Website design benefits customer satisfaction and perceived service quality (Sebastian et al., 2021). If the website's design is clear and concise, consumer will have a positive image and perceive the company as professional (Ganguly et al., 2017; Liu et al., 2021; Zhang et al., 2016). Concerning these ideas led to develop the following hypothesis.

H1: The website design attractiveness will positively affect the customerperceived value.

E-commerce marketplaces reputation

Reputation is an assessment of the potential desire of an entity. An external group of people establishes this assessment as a public value. Reputation reveals an identity that accumulates values from community groups or consumers. Reputation generally relates to customer experience, consumer talks, or media reports on the product or company (Aparicio, 2021). Milewicz & Herbig (1994) stated that reputation reflects the competence and superiority of the product or company over its competitors. Li et al. (2006) mentioned that a reputation based on feedback can reinforce one's attitude toward online shopping. Sellers with a track record, positive feedback, and good testimonials are expected to strengthen consumer attitudes toward online purchase transactions. Resnick et al. (2000) argued that a reputation system based on customer feedback might make it easier for online buyers and sellers to establish connections. In this case, reputation is related to the customer's personal experience, information from other parties' conversations, or seeing news through the media about the product or company. The rising number of internet frauds causes consumers to become more careful, looking for information about the vendor and considering it in the purchase decision (Karahanna et al., 2013).

Xu & Yadav (2003) show that reputation based on feedback can build consumer interest in online purchases. A good reputation means the company gives good service to consumers. A seller with a good reputation can reduce consumer concerns about fraud and increase the value of customer perceptions of the company. Hansen et al. (2008) found that consumers purchase based on the company's reputation, not just the goods or services purchased. Consumer will discover the e-commerce marketplace behind a product or service and how the company runs the business. The following results also support the idea of company reputation on customer-perceived value (Chang, 2013; Han et al., 2015; Su et al., 2016). Based on these notions, this study proposes the following hypothesis.

H2: E-commerce marketplace reputation has a positive effect on customerperceived value.

Perceived ease of transaction

Perceived ease of use is a variable of the technology acceptance model (TAM), which is the foremost theory to predict an individual's adoption of a technology. Consumers who perceive convenience conduct transactions without being distracted by other activities. The individual's perception of how simple it is to conduct business online is called the perception of ease of online

transactions. Potential customers engage in minor transactions that could be more involved, making deciding whether to buy a product online simpler (Davis, 1989; Sembada & Koay, 2021).

The perception of ease refers to the degree to which the user expects a system to be used free of effort/problems (Davis, 1989). Pikkarainen et al. (2004) and Venkatesh & Davis (2000) argued that this perceived ease of transaction is essential in online shopping. The more effortless the customer assessment using online transactions, the higher value of the customer's perception. Other findings also support the idea that the perception of ease of use (transaction) promotes a better customer-perceived value (Davis, 1989; Chairina, 2021; Amin et al., 2014). Thus, this study develops the following hypothesis.

H3: Perceived ease of transaction in online shopping has a positive influence on customer-perceived value.

Online purchase decision

Online purchase decision is a broad concept and has been widely understood. Our concept of online purchase decisions refers to how people judge which products or services to buy and use online. This concept is derived from the purchase decision, which according to, defines as several stages by consumers before deciding to buy a product. Consumer purchase decisions are the cognitive process by which consumers seek product information and collect knowledge to choose between the many available alternatives. Consumers are usually faced with many choices when making a purchase, so they must determine what products and services to choose that are tailored to their needs. Thus, the online purchase decision-making process is the process that the user of online trading products or services goes through before the final process is to decide to buy (Kotler et al., 2017a; Petcharat & Leelasantitham, 2021).

In the online context, online purchasing is a dynamic and highly adaptable process in which choice-makers respond to choice tasks in an adaptable manner (Karimi et al., 2015). This process comprises numerous stages: information search, alternatives evaluation, buy choice, and post-purchase evaluation. During the information search stage, consumers gather information about the product or service they are interested in through various sources such as websites, reviews, and social media. In the evaluation of alternatives stage, they compare the features, benefits, and prices of different products to make an informed decision. Purchase decision stage involves the actual transaction, while the post-purchase evaluation stage involves assessing the product or service's performance and satisfaction (Karimi et al., 2018; La za roiu, et al., 2020).

The traditional concept of customer's perceived value is focused only on the top products and services provided by the company (Woodruff, 1997). This concept is in line with a previous study which stated that the perception of value is the buying and selling between quality and price, the ratio of profit to sacrifice, and the difference (surplus) between benefits and costs (Naylor & Frank, 2000; Monroe, 1987). The concept of value perception is focused only on functional value. Consumers purchase for fulfilling valid values, lifestyles, social symbols, and social gains (Ben & Soltani, 2021). Results of previous studies support the idea of customer-perceived value as the antecedent of purchase decisions (Monroe, 1987; Ali et al., 2013; De Medeiros et al. 2016). Based on these discussions, this study develops the following hypothesis.

H4: Customer-perceived value will positively influence online purchase decisions.

The website design should also consider the information displayed (Ganguly et al., 2017). The website's attractiveness will create a sense of security and trust that the seller will fulfil what was promised (Broekhuizen et al., 2009). Therefore, more attractive the website design will solidify online purchase decisions. Other studies' findings also support the notion that website design promotes consumer purchase decisions (Huang & Benyoucef, 2017; Tang & Zhu, 2019; Khanna & Wahi, 2018). Hence, this study proposes the following hypothesis.

H5: The website design attractiveness will positively influence online purchasing decisions.

Wangenheim & Bayón (2004) revealed that if there is information on the value of the benefits of a product or a company, potential consumers will perceive the product as high. Prospective consumers will feel more confident in purchase decisions online if a product's value is good. Xu & Yadav (2003) explained that a bad reputation would reduce or raise consumer concerns when buying a product. Kim & Ahn (2007) and Xu & Yadav (2003) stated that reputation influences online purchasing decisions. The results of previous studies followed these ideas (Kaur et al., 2017; Jadil et al. 2022; Kim et al. 2023). Therefore, based on previous findings, this study proposed the following hypothesis.

H6: E-commerce marketplace reputation positively affects online purchase decisions.

Customers will appreciate their online shopping experience because finding products or making payments is typically straightforward. The advantages of online purchasing for customers will come with this ease of transaction. Previous research shows that perceived ease of transaction is the main factor in deciding to make an online purchase (Kim et al., 2008; Suleman et al., 2022; Puteri et al., 2022; Acelian & Basri, 2021). Therefore, based on previous findings, this study proposed the following hypothesis. H7: Perceived ease of transaction in online shopping has a positive influence on online purchase decisions.

Website design attractiveness is a form of marketing communication in advertising. Every advertisement must have appeal to persuade consumers to be willing to buy. Consumers will act to search the online store website to choose which services match their consumer criteria. Consumers will choose a website with an attractive design, easy-to-use, and precise information. Consumers will also prefer an online store website with high and good customer value because consumers want to feel satisfied with the website's service, and online purchase decisions will be increase. This idea aligns with previous research findings (Fang et al., 2016; Liu et al., 2021; Monfared et al., 2023). This study developed the following hypothesis.

H8: Customer-perceived value mediates the effect of website design attractiveness on online purchase decisions.

Reputation can be connected to online buying and selling sellers with a proven track record, positive feedback, and testimonials, which will draw customers to shop for products in their stores successfully, compared to online stores with no solid internet reputation or history. Previous study found that consumers purchase based on the company's reputation, not just because of products or services knowledge. When the company's reputation is good, customer believes that the company will secure transaction process and provide good products and services. If the customer's perception of value is high, online purchasing decisions will likely occur (Ponte et al., 2015; Kim et al., 2017; Miao et al., 2022). Thus, this study proposes the following hypothesis.

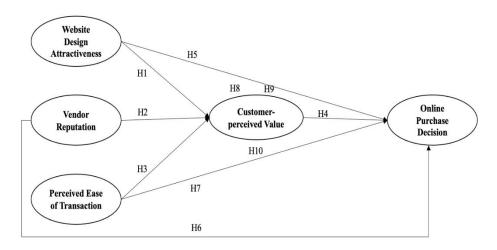
H9: Customer-perceived value mediates the effect of e-commerce marketplace reputation on online purchase decisions.

Online shopping is also associated with ease of transaction. Perceived ease of transaction is the level at which users believe they can use technology efficiently (Davis, 1989; Sembada & Koay, 2019). According to Turban (2010), ease of transactions should be used as efficiently as possible without going through a process that can make it difficult for users in the transaction process. In this case, perceived ease of transaction will improve the customerperceived value, affecting online purchase decisions (Kumar et al., 2022; Zeqiri et al., 2022; Yen, 2022). Therefore, this study developed following hypothesis. H10: Customer-perceived value mediated the relationship of perceived ease of transaction on online purchasing decisions.

The research framework is presented by Figure 1. Figure 1 integrate website design attractiveness, vendor reputation, and perceived ease of transaction which influence customer perceived value and online purchase decision.

Figure 1.

Research framework



Research method

This study employed a quantitative approach with an explanatory research design. One of the famous Indonesian marketplaces served as our research setting. Respondents are marketplace buyers. The sample was chosen based on the purposive sampling method with the following criteria: age 17 years old or above and have already purchased at the marketplace at least twice. This study provided online questionnaire (Google Form) to collect the data that sent via social media. The sampling size was determined according to Hair (2014), who stated that the data for SEM analysis is around 200 respondents.

The research instruments were developed by adopting and adapting from previous studies. Website design attractiveness measurement was referred from Broekhuizen et al. (2009). E-commerce marketplace reputation scale was adapted from Li et al. (2006) and Williams et al. (2012). Perceived ease of transaction was adopted from Chiou et al. (2012). Customer-perceived value measurement was adapted from Lin and Sun (2009). Online purchase decision measurement was adopted from Häubl (1996), Katawetawaraks & Wang (2011), and Uddin et al. (2014). This study used SEM (Structural Equation Modelling) to analyse data and test hypotheses. AMOS was employed as the data analysis method in this investigation.

Data analysis and result

There are 225 respondents in the data analysis. Table 1 shows the demographic profiles of our respondents related to gender, age, last education, occupation, and intensity of making purchases through the marketplace.

BISMA (Bisnis dan Manajemen) Volume 15 Issue 2, April 2023 Page 229–254 E-ISSN 2549-7790, P-ISSN 1979-7192

Table 1.

Respondent profiles

Characteristics of Respondents	Information	Total Respondents	Percentage
Carla	Man	132	58,7%
Gender	Woman	93	41,3%
1 22	18 – 22 Years	205	91%
Age	23 – 34 Year	20	9%
	High school	60	26,7%
Depart Education	Diploma	25	11,1%
Recent Education	Bachelor	139	61,8%
	Master	1	0,4%
	Student	204	90,7%
Occupation	Private/Public Employees	18	8,0%
L.	Self-employed	3	1,3%
Make purchases through Tokopedia	1 Time a Month	135	60,0%
	2 Times a Month	71	31,6%
	3 Times a Month	13	5,8%
	More Than 3 Times a Month	6	2,7%
	Total	225	100%

Before data analysis, this study performed an instruments test, i.e., validity, reliability, and normality. The validity test uses a confirmatory factor analysis (CFA) correlation test using SPSS version 26. Data is valid if the loading factor value exceeds 0.5 (Hair et al., 2014). In comparison, reliability is used to measure an instrument's consistency (reliability). An instrument is reliable if a consumer's answer is consistent or stable over time. To see the reliability of each instrument, this study used the Cronbach Alpha coefficient using the SPSS.

Appendix 1 shows the results of confirmatory factor analysis and Cronbach Alpha for reliability. Based on Appendix 1, the loading factors of each item were more significant than 0.5. Hence, the entire research instrument was valid. The indicator of instrument reliability is the value of Cronbach's alpha which is greater than 0.70. The Cronbach Alpha for all variables showed a value greater than 0.7. Thus, all the variables were reliable.

The data analysis with AMOS is started with checking the goodness of fit value to see how much the proposed model matches the data sample or fit. Appendix 2 shows that five goodness of fit indicators were fit, hence, the model could be used for further analysis.

The results of hypothesis testing showed in Table 2 with the standardised regression weight value, which shows the coefficient of influence between variables.

Relationshi	ps Bet	ween Variables	Estimate	S.E.	C.R.	Р	Hypothesis
Customer- perceived value	÷	Website design attractiveness	0.189	0.091	2.082	0.037	Significant positives
Customer- perceived value	÷	E-commerce marketplace reputation	0.231	0.075	3.086	0.002	Significant positives
Customer- perceived value	÷	Perceived ease of transaction	0.205	0.085	2.417	0.016	Significant positives
Purchase decisions	÷	Customer- perceived value	0.272	0.096	2.828	0.005	Significant positives
Purchase decisions	÷	Website design attractiveness	0.048	0.097	0.494	0.621	Rejected
Purchase decisions	←	E-commerce marketplace reputation	0.057	0.081	0.706	0.48	Rejected
Purchase decisions	÷	Perceived ease of transaction	0.442	0.111	3.978	***	Significant positives

Table 2.Relationships between variables

Based on Table 2, the hypothesis testing results can be explained as follow. Hypothesis 1 is supported. The parameter estimation of the coefficient of standardised regression weight was 0.189 and the value of C.R. was 2.082, it is show that the relationship between the website design attractiveness and customer-perceived value is positive. Thus, the better the website design attractiveness, the higher customer-perceived value. Testing the relationship between the two variables showed a probability value of 0.037 (p<0.05).

The estimation parameter of the coefficient of standardised regression weight in hypothesis 2 was 0.231. Hypothesis 2 is supported. The value of C.R. 3.086 shows that the relationship between e-commerce marketplace reputation and customer-perceived value is positive. Thus, the better the e-commerce marketplace's reputation, the more customer value will be perceived. Testing the relationship between the two variables showed a probability value of 0.002 (p<0.05).

The estimation parameter of the coefficient of standardised regression weight in hypothesis 3 was obtained by 0.205. Hypothesis 2 is supported. The value of C.R 2.417 shows the positive relationship between the perceived ease of transaction and customer-perceived value. Thus, the better the perceived ease of transaction, the more customer value will be perceived. Testing the relationship between the two variables showed a probability value of 0.016 (p<0.05).

The parameter estimating the value of the coefficient of standardised regression weight in hypothesis 4 was 0.272 and the value of C.R. was 2.828. Hypothesis 4 is supported. It is shows that the relationship between customer-perceived value and the online purchase decision is positive. Thus, the better the customer's perceived value, the more online purchase decisions will increase. Testing the relationship between the two variables showed a probability value of 0.005 (p<0.05).

The parameter estimating the coefficient of standardised regression weight in hypothesis 5 was 0.048 and the value of C.R. was 0.494. Hypothesis 5 is supported. It is shows that the relationship the website design attractiveness not affect online purchase decision value. Testing the relationship between the two variables showed a probability value of 0.621 (p>0.05).

The estimation parameter of the coefficient of standardised regression weight in hypothesis 6 was 0.057. Hypothesis 6 is not supported. The value of C.R. was 0.706. It is shows that e-commerce marketplace reputation is not affect the online purchase. Testing the relationship between the two variables showed a probability value of 0.48 (p>0.05).

The estimation parameter of the coefficient of standardised regression weight in hypothesis 7 was 0.442. Hypothesis 7 is supported. The value of C.R. 3.978 shows the positive relationship between the perceived ease of transaction and the online purchase decision. Thus, the better the perceived ease of transaction, the more online purchase decision will be. Testing the relationship between the two variables showed a probability value of 0.000 (p<0.05).

Appendix 3 compared the value of standardised discarded indirect effects to see the mediating impact of intervening or mediation between independent and dependent variables. Thus, if the value of the direct standardised impact is smaller than that of the standardised indirect effect, the mediation variable indirectly influences the relationship between the two variables.

Appendix 4 shows the mediation analysis investigated the effect of website design attractiveness on online purchase decisions by mediating customer-perceived value. This study compared whether the value of direct impact is smaller than the value of the indirect effect. The testing of the relationship between the two variables shows a value of 0.04<0.043. It indicates that the customer-perceived value mediates the impact of website design attractiveness on the purchase decision. Thus, hypothesis 8 declared that customer-perceived value mediates the influence of website design attractiveness on online purchase decisions is supported.

This study tested the mediating effects of customer-perceived value on the relationship between e-commerce marketplace reputation and purchase decisions by comparing whether the value of direct impact is smaller (<) than the indirect effect. Testing the relationship between the two variables shows a 0.059<0.065. This result indicates that customer-perceived value mediates ecommerce marketplace reputation towards an online purchase decision. So, H9 is supported, hence, customer-perceived value mediates the influence of e-commerce marketplace reputation on online purchase decisions.

The effect mediating effect of customer-perceived value on the relationship between the perceived ease of transaction on purchase decision was tested by comparing whether the value of direct impact is smaller (<) than the value of the indirect effect. Testing the relationship between the two variables shows a 0.415 < 0.052. This result indicates that the customer-perceived value mediates the perception of ease transactions against adverse purchasing decisions. It means that there is no mediating effect of customer-perceived value on the influence of perceived ease of transaction on the purchase decision (H10 not supported).

The effect of website design attractiveness on customer-perceived value

The result shows that hypothesis 1 is supported. It means that website design attractiveness positively affects customer-perceived value. This study aligns with previous study result which state that website design is a direct interface with customers and has a critical role in shaping their values in turn lead to satisfaction. The results prove that the better the website design attractiveness, the better the customer-perceived value (Ganguly et al., 2017; Liu et al., 2021; Zhang et al., 2016). It implies that an attractive website is critical for an online marketer to influence consumer value perception. An attractive website gives a signal to the customers to perceive the value of the brand. Creating an attractive website will signal the customer about the company's image and provide an impressive experience during online shopping.

The effect of e-commerce marketplace reputation on customer-perceived value

This study also got support for hypothesis 2, which states that ecommerce marketplace reputation positively affects customer-perceived value. These results align with research from Hansen et al. (2008), Chang (2013), Han et al. (2015), and Su et al. (2016). The results of this study prove that the better the e-commerce marketplace reputation is created, the better customer value perception. A good reputation attached to a product or company name gives a strong impression of the word. Hence, building a good reputation is vital for company to create a valuable consumer perception. Building a good reputation is also critical for the customer to ensure they make the transaction with a reputable e-commerce marketplace, which implies a safe transaction.

The effect of perceived ease of transaction on customer-perceived value

The results of the data analysis also gave support for hypothesis 3. This finding supports the idea of Davis (1989), Chairina (2021), Amin et al. (2014), and Dextre et al. (2016), which stated that the perception of ease of use (transaction) promotes a better customer-perceived value. It means that perceived ease of transaction positively affects the customer-perceived value, which is supported. Perception of convenience refers to the degree to which the user expects a system to be used free from effort/problems. Therefore, ensuring the comfort of the transaction is one of the key factors in forming customer-perceived value. Company needs to develop an easy transaction procedure is also vital to ensure customers to have convenience and easy shopping experience.

The effect of customer-perceived value on online purchase decisions

This study support for the testing results of hypothesis 4. This result means that customer-perceived value positively affects online purchase decisions. Customer-perceived value is the ratio of profit to sacrifice or the difference (surplus) between benefits and costs. This finding aligns with a previous study's result on the antecedent of purchase decisions (Naylor & Frank, 2000; Ali et al., 2013; De Medeiros et al. (2016). The results of this study prove that the better the perception of customer value is created, the higher their probability of purchase decision. Thus, creating a good perceived customer value is essential in persuading the consumer to purchase the product. The results implied that companies must fulfil the expected customer values. Three ways to create it are by creating an attractive website, building a good reputation, and ensuring ease in transactions.

The effect of website design attractiveness on online purchase decisions

Website design attractiveness does not affect online purchase decisions (H5 is not supported). This finding is also contrary to previous studies, which stated that website design promotes consumer purchase decisions (Ganguly et al. 2017; Huang & Benyoucef, 2017; Tang & Zhu, 2019; Khanna & Wahi, 2018). Thus, this study could not expect a good website design to encourage customers to buy the product directly. The mediating analysis might explain it. The insignificant result of website design attractiveness on online purchase decisions also shows a full mediation effect of customer-perceived value. It implies the importance of improving website attractiveness through UX/UI website design. The UX/UI design can improve the user experience and maximize the customers' satisfaction which ensures an increased number of leads and higher conversion rates for e-commerce website.

The effect of e-commerce marketplace reputation on online purchase decisions

Hypothesis 6, which declared e-commerce marketplace reputation to online purchase decision is not supported. This finding proved that there is no direct influence between e-commerce marketplace reputation and purchase decision, and it does not support the previous research idea (Kaur et al., 2017; Jadil et al., 2022); Kim et al., 2023). This study cannot expect that a good ecommerce marketplace reputation directly influences purchase decisions. Purchase decisions will happen after consumers form their perception of the value they will get. Although the relationship of marketplace reputation is not directly influenced the online purchase decision, it is still important for marketplaces to enhance their reputation. When marketplace able to establish consumer trust, consumers are more likely to purchase from it over less favourable options.

The effect of perceived ease of transaction on online purchase decisions

Hypothesis 7 which proposed that perceived ease of transaction positively affects online purchase decisions, is supported. This finding supports the previous research that perceived ease of transaction contributed to online purchase decisions (Suleman et al., 2022; Puteri et al., 2022; Acelian & Basri 2021). This study proves that the more manageable the transaction process, the higher the customer's probability of purchasing. It implies the importance of create e-commerce website that easy to operate or navigate. The easier website application to use, the more customers that marketplace will reach. If the ecommerce website is simple to use, and additional information and support is easily accessible, it will attract a much broader range of customers.

The mediating effect of customer-perceived value on the relationship of website design attractiveness on online purchase decisions

Hypothesis 8 declared that customer-perceived value mediates the influence of website design attractiveness on online purchase decisions is supported. In other words, there is an indirect influence between website design attractiveness and purchase decisions. These findings prove that customer-perceived value mediates the attractiveness of website design and online purchase decisions. This idea aligns with previous research findings (Fang et al., 2016; Liu et al., 2021; Monfared et al., 2023). This result proved the significance of peripheral routes in the consumer information process. Consumers rely on more than just their evaluation based on the central pathways, such as product quality. Thus, the marketer must create an attractive website design to form their customer perception of value and influence to purchase. It implies that a marketer should ensure their website design is

attractive enough to create a good customer value perception, influencing them to purchase.

The mediating effect of customer-perceived value on the relationship of ecommerce marketplace reputation on online purchase decisions

Hypothesis H9 is supported. Customer-perceived value mediates the influence of e-commerce marketplace reputation on online purchase decisions. This result proves that better e-commerce marketplace's reputation will influence customer-perceived value and, in turn, their purchase decision. Our study findings supported the idea of previous research (Ponte et al., 2015, Kim et al., 2017, Miao et al., 2022). Consumers need a process to perceive information related to the value they will get when they buy from a reputable e-commerce marketplace. This result also showed that customer-perceived value fully mediates the relationship between e-commerce marketplace reputation and online purchase decisions. Consumer perception that they can perform transactions efficiently can drive them to purchase from online stores. Thus, it is confirmed that building and having a good reputation as an e-commerce marketplace is essential for a marketer to shape their customer value perception, persuading them to purchase.

The mediating effect of customer-perceived value on the relationship of perceived ease of transaction on online purchase decisions

While H10 is not supported, the mediating effect of customer-perceived value on the influence of perceived ease of transaction on the purchase decision is not supported. Unlike a previous study, Davis (1989), this study revealed that customer-perceived value did not mediate the influence of perceived ease of transaction on online purchase decisions. This finding is different from the idea of previous research (Kumar et al., 2022; Zeqiri et al., 2022; Yen, 2022). Thus, customer-perceived value is unnecessary for the perceived ease of transaction to make a purchase decision. Based on this finding, customer-perceived value is not required for ease of transaction perception to influence online purchase decisions. Therefore, it is mandatory for e-commerce marketplace to pay attention to the factors influencing the ease of transaction and e-service quality such as flexible payment options and secured payment process.

Conclusion

Website design attractiveness, e-commerce marketplace reputation, and perceived ease of transaction significantly affects customer-perceived value. Customer-perceived value positively affects online purchase decisions. However, website design attractiveness and e-commerce marketplace reputation did not affect the purchase decision. E-commerce marketplace did not affect online purchase decision. Perceived ease of transaction affects online purchase decisions. This study found that customer-perceived value significantly mediates the relationship between website design attractiveness and purchase decision. This study also found that customer-perceived mediates the relationship. However, this study found that customer-perceived value did not mediate the relationship between the perceived ease of transaction with the online purchase decision. This study suggests future research to consider more predictors, such as product category, individual differences, and need for uniqueness.

Author contribution

Indah Fatmawati: Conceptualization, Data curation, Methodology, Writing–original draft, Review, Editing. Abid Abiyyu Fathin: Conceptualization, Data collection and analysis, Writing. Pensri Djaroenwanit: Review and Editing.

Declaration of interest

The authors affirm that they have no known financial or interpersonal conflicts that would have appeared to impact the research presented in this study.

Acknowledgements

We thank colleagues from Universitas Muhammadiyah Yogyakarta, who provided insight and expertise that greatly assisted the research.

References

- Acelian, R. M., & Basri, H. A. (2021). Analysis of sales promotion, perceived ease of use, and security on consumer decisions to use DANA digital wallet. *International Journal of Innovative Science and Research Technology*, 6(1), 1436-1441.
- Ali, F., Omar, R. & Amin, M. (2013). An examination of the relationships between physical environment, perceived value, image and behavioural intentions: a SEM approach towards Malaysian resort hotels. *Journal of Hotel and Tourism Management*, 27(2), 9-26. https://doi.org/10.1080/19368623.2015.1019172.
- Alshibly, H. H. (2015). Investigating Decision Support System (DSS) Success: A Partial Least Squares Structural Equation Modeling Approach. *Journal* of Business Studies Quarterly, 6(4), 56–77.
- Amin, M., Rezaei, S., & Abolghasemi, M. (2014). User satisfaction with mobile websites: the impact of perceived usefulness (PU), perceived ease of use (PEOU), and trust. *Nankai Business Review International*. 5(3), 258-274. https://doi.org/10.1108/NBRI-01-2014-0005.

Aparicio, M., Costa, C. J., & Moises, R. (2021). Gamification and reputation:

key determinants of e-commerce usage and repurchase intention. *Heliyon*, 7(3), 1-14. https://doi.org/10.1016/j.heliyon.2021.e06383.

- Ben, I., & S. Soltani. (2021). Determinants and consequences of the website perceived value. *Journal of Internet Banking and Commerce*, 13(1), 1-13.
- Broekhuizen, T., & Huizingh, E. K. R. E. (2009). Online purchase determinants: is their effect moderated by direct experience?. *Management Research News*, 32(5), 440–457. https://doi.org/10.1108/01409170910952949.
- Chairina, R. R. L. (2021). The effect of perceived usefulness and perceived ease of use on perceived value and actual usage of technology on the online service of Pt. Garuda Indonesia Tbk. *Journal of Research in Business and Management*, 9(4), 59-65.
- Chang, K. C. (2013). How reputation creates loyalty in the restaurant sector. *International Journal of Contemporary Hospitality Management*, 25(4), 536-557. https://doi.org/10.1108/09596111311322916.
- Chiou, Jyh-Shen; Shen, Chung-Chi. (2012). The antecedents of online financial service adoption: the impact of physical banking services on internet banking acceptance. *Behavior and Information Technology*, 31(9), 859– 871. https://doi.org/10.1080/0144929X.2010.549509.
- Wei, C., Yu, Z.-J., & Chen, X.-N. (2017). Research on social e-commerce reputation formation and state-introduced model. *Kybernetes*, 46(6), 1021-1038. https://doi.org/10.1108/K-08-2016-0203.
- Cyr, Dianne. (2008). Modeling web site design across cultures: relationships to trust, satisfaction, and e-loyalty. *Journal of Management Information Systems*, 24(4), 47–72. https://doi.org/10.2753/MIS0742-1222240402.
- Dash, M. K., & A. Kumar. (2013). Constructing a measurement in service quality for indian banks: structural equation modeling approach. *The Journal of Internet Banking and Commerce, 18*(1), 1–13.
- Davis. (1986). *Theory-of-Reasoned-Action-TRA-Davis-1986*. Unpublished Doctoral Dissertation MIT.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13*(3), 319-340. https://doi.org/10.2307/249008.
- De Medeiros, J.F., Ribeiro, J.L.D. & Cortimiglia, M.N. (2016), Influence of perceived value on purchasing decisions of green products in Brazil. *Journal of Cleaner Production*, 110, 158-169. https://doi.org/10.1016/j.jclepro.2015.07.100.

- Dextre-Mamani, R., Pérez-Arce, B., & Zubiria, M. L. L. (2022). Content richness, perceived price, and perceived ease of use in relation to the satisfaction level and brand equity in streaming platforms. Advanced Research in Technologies, Information, Innovation, and Sustainability: Second International Conference (ARTIIS), 272-286. https://doi.org/ 10.1007/978-3-031-20319-0_21.
- Fang, J., Wen, C., George, B., & Prybutok, V. R. (2016). Consumer heterogeneity, perceived value, and repurchase decision-making in online shopping: the role of gender, age, and shopping motives. *Journal* of *Electronic Commerce Research*, *17*(2), 116-131.
- Fishbein, M., & I. Ajzen. (1975). Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. Reading, MA: Addison-Wesley.
- Flanagin, A. J., Metzger, M. J., Pure, R., Markov, A., & Hartsell, E. (2014). Mitigating risk in ecommerce transactions: perceptions of information credibility and the role of user-generated ratings in product quality and purchase intention. *Electronic Commerce Research*, 14(1), 1–23 https://doi.org/10.1007/s10660-014-9139-2.
- Ganguly, A., Das, N., & Farr, J. V. (2017). The role of marketing strategies in successful disruptive technologies. *International Journal of Innovation* and *Technology Management*, 14(3), 1–20. https://doi.org/10.1142/S021987701750016X.
- Hair, J.F., William C. B, Barry J. B, & Rolph E. A. (2014). *Multivariate Data Analysis. Seventh Edition*. Pearson Education Limited.
- Han, S. H., Nguyen, B., & Lee, T. J. (2015). Consumer-based chain restaurant brand equity, brand reputation, and brand trust. *International Journal of Hospitality* Management, 50, 84-93. https://doi.org/10.1016/j.ijhm.2015.06.010.
- Hansen, H., Samuelsen, B. M., & Silseth, P. R. (2008). Customer perceived value in btb service relationships: investigating the importance of corporate reputation. *Industrial Marketing Management*, 37(2), 206-217. https://doi.org/10.1016/j.indmarman.2006.09.001.
- Harn, A. C. P., Khatibi, A., & Ismail, H. bin. (2006). E-commerce: a study on online shopping in Malaysia. *Journal of Social Sciences*, *13*(3), 231–42. https://doi.org/10.1080/09718923.2006.11892554.
- Häubl, G. (1996). A cross-national investigation of the effects of country of origin and brand name on the evaluation of a new car. *International Marketing Review*, 13(5), 76–97. https://doi.org/10.1108/02651339610131405.

- Huang, Z., & Benyoucef, M. (2017). The effects of social commerce design on consumer purchase decision-making: an empirical study. *Electronic Commerce Research and Applications*, 25, 40-58. https://doi.org/10.1016/j.elerap.2017.08.003.
- Jadil, Y., Rana, N. P., & Dwivedi, Y. K. (2022). Understanding the drivers of online trust and intention to buy on a website: an emerging market perspective. *International Journal of Information Management Data Insights*, 2(1), 1-12. https://doi.org/10.1016/j.jjimei.2022.100065.
- Karahanna, E., Williams, C., Polites, G., 2013. Uncertainty avoidance and consumer perceptions of global e-commerce sites: a multi-level model. *Drake Management Review*, 3(1), 12–47.
- Karimi, Sahar; Papamichail, K. Nadia; Holland, Christopher P. (2015). The effect of prior knowledge and decision-making style on the online purchase decision-making process: A typology of consumer shopping behaviour. *Decision Support Systems*, 77, 137–147. https://doi.org/10.1016/j.dss.2015.06.004.
- Karimi, Sahar; Holland, Christopher P.; Papamichail, K. Nadia (2018). The impact of consumer archetypes on online purchase decision-making processes and outcomes: A behavioural process perspective. *Journal of Business Research*, 91, 71–82. https://doi.org/10.1016/j.jbusres.2018.05.038.
- Katawetawaraks, Chayapa, & Cheng Lu Wang. (2011). Online Shopper Behavior: Influences of Online Shopping Decision. *Asian Journal of Business Research*, 1(2), 66-74. https://doi.org/10.14707/ajbr.110012.
- Kaur, S., Lal, A. K., & Bedi, S. S. (2017). Do vendor cues influence purchase intention of online shoppers? an empirical study using SOR framework. *Journal of Internet Commerce*, 16(4), 343-363. https://doi.org/10.1080/15332861.2017.1347861.
- Khanna, S., & Wahi, A. K. (2018). Website attractiveness in e-commerce sites: Key factors influencing the consumer purchase decision. *Mobile Commerce: Concepts, Methodologies, Tools, and Applications*, 394-403. https://doi.org/10.4018/978-1-5225-2599-8.ch021.
- Kim, Dan J., Donald L. Ferrin, H. Raghav Rao. (2008). A trust-based consumer decision-making model in electronic commerce: the role of trust, perceived risk, and their antecedents. *Decision Support Systems*, 44(2), 544–564. https://doi.org/10.1016/j.dss.2007.07.001.
- Kim, M. -S., & Ahn, J. -H. (2007). Management of trust in the e-marketplace: the role of the buyer's experience in building trust. *Journal of Information Technology*, 22(2), 119–32. https://doi.org/10.1057/palgrave.jit.2000095.

- Kim, S. Y., Kim, J. U., & Park, S. C. (2017). The effects of perceived value, website trust and hotel trust on online hotel booking intention. *Sustainability*, 9(12), 1-14. https://doi.org/10.3390/su9122262.
- Kim, K. Y., Lopez, C., & Drayer, J. (2023). Do consumers care about credibility? Examining corporate credibility and price on sports ticket purchase decision making. *Sport Management Review*, 1-23. https://doi.org/10.1080/14413523.2022.2127073.
- Kotler, P., Kartajaya, H., Setiawan, I. (2017a). *Marketing 4.0: Moving from Traditional to Digital*. New Jersey: John Wiley & Sons.
- Kotler, Philip., K.L Keller, A. Chernev. (2017b). *Marketing Management Sixteenth Edition Global Edition*. Pearson Ed.
- Kumbhar, Vijay. (2011). Structural equation modeling of ebankqual scale: a study of e-banking in India. *Journal of Business Economics and Management*. 2(5), 19–32.
- Lažařoiu, G., Negurita, O., Grecu. I., Grecu, G., & Mitran P. C. (2020) consumers' Decision-making process on social commerce platforms: online trust, perceived risk, and purchase intentions. *Frontiers in Psychology*, 11, 1-7. https://doi.org/10.3389/fpsyg.2020.00890.
- Li, D., Browne, G. J., & Chau, P. Y. K. (2006). An Empirical Investigation of Web Site Use Using a Commitment-Based Model. *Decision Sciences*, 37(3), 427–444. https://doi.org/10.1111/j.1540-5414.2006.00133.x.
- Liu, P., Li, M., Dai, D., & Guo, L. (2021). The effects of social commerce environmental characteristics on customers' purchase intentions: The chain mediating effect of customer-to-customer interaction and customer-perceived value. *Electronic Commerce Research and Applications*, 48(2), 1-14. https://doi.org/10.1016/j.elerap.2021.101073.
- Lin, Grace T.R.; Sun, Chia-Chi (2009). Factors influencing satisfaction and loyalty in online shopping: an integrated model. Online *Information Review*, 33(3), 458–475. https://doi.org/10.1108/14684520910969907.
- Lovelock, C. H. (2017). Services Marketing: A Sector of the Current Millennium. Tulika Sood (JECRC University, India). https://doi.org/10.4018/978-1-5225-2475-5.ch002.
- Miao, M., Jalees, T., Zaman, S. I., Khan, S., Hanif, N. U. A., & Javed, M. K. (2022). The influence of e-customer satisfaction, e-trust, and perceived value on consumer's repurchase intention in B2C e-commerce segment. *Asia Pacific Journal of Marketing and Logistics*, 34(10), 2184-2206. https://doi.org/10.1108/APJML-03-2021-0221.

- Milewicz, J., & Herbig, P. (1994). Evaluating the brand extension decision using a model of reputation building. *Journal of Product & Brand Management*, 3(1), 39-47. https://doi.org/10.1108/10610429410053077.
- Molinillo, S., Aguilar-Illescas, R., Anaya-Sánchez, R., & Liébana-Cabanillas, F. (2021). Social commerce website design, perceived value, and loyalty behavior intentions: the moderating roles of gender, age and frequency of use. *Journal of Retailing and Consumer Services*, 63, 1-13. https://doi.org/10.1016/j.jretconser.2020.102404.
- Molinillo, S., Japutra, A., & Ekinci, Y. (2022). Building brand credibility: The role of involvement, identification, reputation, and attachment. *Journal of Retailing and Consumer Services*, 64, 1-9. https://doi.org/10.1016/j.jretconser.2021.102819.
- Monfared, A. R. K., Barootkoob, M., Sabokro, M., Keshavarz, M., & Malmiri, M. M. (2023). The online stickiness circumstances in electronic retailing: website quality, perceived risk, and perceived value. *International Journal of Electronic Business*, 18(1), 51-76. https://doi.org/10.1504/IJEB.2022.10047945.
- Monroe, K. B., & Chapman, J. D. (1987). Framing effects on buyers' subjective product evaluations. *ACR North American Advances*, *14*, 193-197.
- Najafi, I., Kamyar, M., Kamyar, A., & Tahmassebpour, M. (2017). Investigation of the correlation between trust and reputation in b2c ecommerce using alexa ranking. *IEEE Access*, 5, 12286-12292. https://doi.org/10.1109/ACCESS.2017.2720118.
- Naylor, Gillian, & Kimberly E. Frank. (2000). The impact of retail sales force responsiveness on consumers' perceptions of value. *Journal of Services Marketing*, 14(4), 310–322. https://doi.org/10.1108/08876040010334529.
- Petcharat, T., & Leelasantitham, A. (2021). A retentive consumer behavior assessment model of the online purchase decision-making process. *Heliyon*, 7(10), 1-18. https://doi.org/10.1016/j.heliyon.2021.e08169.
- Pikkarainen, T.; Pikkarainen, K.; Karjaluoto, H.; Pahnila, S. (2004). Consumer acceptance of online banking: an extension of the technology acceptance model. *Internet Research*, 14(3), 224–235. https://doi.org/10.1108/10662240410542652.
- Ponte, E. B., Carvajal-Trujillo, E., & Escobar-Rodríguez, T. (2015). Influence of trust and perceived value on the intention to purchase travel online: Integrating the effects of assurance on trust antecedents. *Tourism management*, 47, 286-302. https://doi.org/10.1016/j.tourman.2014.10.009.

- Puteri, H. E., Arinda, N., Mulyana, C. A., Puspita, D. O., & Husna, V. A. (2022). Examining the determinants of using e-money prepaid software for millennial generation. *European Journal of Business and Management Research*, 7(2), 183-191. https://doi.org/10.24018/ejbmr.2022.7.2.1358.
- Khanna, S.; Wahi, A. K. (2014). Website Attractiveness in E-Commerce Sites. International Journal of Virtual Communities and Social Networking, 6(2), 49–59. https://doi.org/10.4018/ijvcsn.2014040104.
- Kumar Singh, A., Singh Patel, B., & Samuel, C. (2022). Understanding customer-perceived values for apparel retailing in India. *International Journal of Retail & Distribution Management*, 50(11), 1337-1357. https://doi.org/10.1108/IJRDM-08-2021-0347.
- Resnick, P., Kuwabara, K., Zeckhauser, R., & Friedman, E. (2000). Reputation systems. *Communications of the ACM*, 43(12), 45-48.
- Ribeiro, M. A., G. Joaquín, & U. Domingo. (2009). *Entrepreneurship and Business*. WMXDesign GmbH, Heidelberg, Germany.
- Sebastian, M., Aguilar-Illescas, R., Anaya-Sánchez, R., & Liébana-Cabanillas, F. (2021). Social commerce website design, perceived value, and loyalty behavior intentions: the moderating roles of gender, age, and frequency of use. *Journal of Retailing and Consumer Services*, 63, 1-13. https://doi.org/10.1016/j.jretconser.2020.102404.
- Sembada, A.Y., & Kian, Y. K. (2019). How perceived behavioral control affects trust to purchase in social media stores, *Journal of Business Research*, 130, 574-582. https://doi.org/10.1016/j.jbusres.2019.09.028.
- Shergill, G. S. & Chen, Z. (2014). Web-based shopping : consumers' attitudes towards online shopping in New Zealand. *Journal of Electronic Commerce Research*, 6(2), 72-94.
- Shi, K., De Vos, J., Yang, Y., & Witlox, F. (2019). Does e-shopping replace shopping trips? empirical evidence from Chengdu, China. *Transportation Research Part A: Policy and Practice*, 122, 21-33. https://doi.org/10.1016/j.tra.2019.01.027.
- Su, L., Swanson, S. R., Chinchanachokchai, S., Hsu, M. K., & Chen, X. (2016). Reputation and intentions: the role of satisfaction, identification, and commitment. *Journal of Business Research*, 69(9), 3261-3269. https://doi.org/10.1016/j.jbusres.2016.02.023.
- Suleman, D., Rusiyati, S., Sabil, S., Hakim, L., Ariawan, J., Wianti, W., & Karlina, E. (2022). The impact of changes in the marketing era through digital marketing on purchase decisions. *International Journal of Data*

BISMA (Bisnis dan Manajemen) Volume 15 Issue 2, April 2023 Page 229–254 E-ISSN 2549-7790, P-ISSN 1979-7192

and Network Science, 6(3), 805-812. http://dx.doi.org/10.5267/j.ijdns.2022.3.001.

- Tang, M., & Zhu, J. (2019). Research of O2O website-based consumer purchase decision-making model. *Journal of Industrial and Production Engineering*, 36(6), 371-384. https://doi.org/10.1080/21681015.2019.1655490.
- Tokopedia.com. (2020). About Us, Retrievd September 1 2022 from https://www.tokopedia.com/about/our-story/.
- Tran, L. T. T. (2021). Managing the effectiveness of e-commerce platforms in a pandemic. *Journal of Retailing and Consumer Services*, 58, 1-9. https://doi.org/10.1016/j.jretconser.2020.102287.
- Turban. (2010). *Electronic Commerce. Managerial Perspective Global, 6th ed.* New Jersey: Pearson.
- Uddin, Md. R., Lopa, N. Z., & Oheduzzaman, Md. (2014). Factors affecting customers' buying decisions of mobile phone: a study on Khulna City, Bangladesh. *International Journal of Managing Value and Supply Chains*, 5(2), 21–28. https://doi.org/10.5121/IJMVSC.2014.5203.
- Vaithianathan, S. (2010). A review of e-commerce literature on India and research agenda for the future. *Electron Commerce Research*, *10*, 83–97. https://doi.org/10.1007/s10660-010-9046-0.
- Venkatesh, V. & Davis, F. D. (2000). Theoretical extension of the technology acceptance model: four longitudinal field studies. *Management Science*, 46(2), 186–204. https://doi.org/10.1287/mnsc.46.2.186.11926.
- Wangenheim, F. V. & Bayón, T. (2004). The effect of word of mouth on services switching: measurement and moderating variables. *European Journal of Marketing*, 38(9), 1173–1185. https://doi.org/10.1108/03090560410548924.
- Williams, M., Buttle, F. & Biggemann, S. (2012). Relating word-of-mouth to corporate reputation. *Public Communication Review*, 2(2), 3–16. https://doi.org/10.5130/pcr.v2i2.2590.
- Woodruff, R. B. (1997). Customer value: the next source for competitive advantage. *Journal of the Academy of Marketing Science*, 25(2), 139–153. https://doi.org/10.1007/BF02894350.
- Xu, Bo & Surya Yadav. (2003). Effects of online reputation service in electronic markets: a trust-based empirical study. *Ninth Americas Conference on Information Systems*, 52, 404–409.
- Yen, Y. S. (2022). Channel integration affects usage intention in food delivery platform services: the mediating effect of perceived value. *Asia Pacific*

Journal of Marketing and Logistics, 35(1), 54-73. https://doi.org/10.1108/APJML-05-2021-0372.

- Zeqiri, J., Ramadani, V., & Aloulou, W. J. (2022). The effect of perceived convenience and perceived value on intention to repurchase in online shopping: the mediating effect of e-WOM and trust. *Economic Research-Ekonomska* Istraživanja, 1-21. https://doi.org/10.1080/1331677X.2022.2153721.
- Zhang, K. Z., Benyoucef, M., & Zhao, S. J. (2016). Building brand loyalty in social commerce: the case of brand microblogs. *Electronic Commerce Research and Applications*, 15, 15-25. https://doi.org/10.1016/j.elerap.2015.12.001.

Appendix 1.

Results of the validity and reliability test

Attractive visual design0.827The look of the site captivates the hearts of customers0.766WebsiteThe combination of site ornaments looks beautiful0.682attractivenessInte colour blend of the website captivates the hearts of customers0.517Website content is communicated in an attractive format0.521Appropriate information and services0.496Well-known by customers0.687Superior compared to competitors0.764Corporate attractiveness0.74Corporate attractiveness0.74Corporate attractiveness0.74Consistent corporate reputation0.591Ease of ordering procedure0.709Disclosure of information during transaction0.574Perceived ease of transactionEase of product search procedure0.709 valueOnline shopping can save time0.732 Clear and understandable doubt0.763Confidence in choosing the product Choosing the product without any doubt0.679Online purchase decisionPrefer the product compare to others Search for the product when it is needed0.761Online doubt0.7610.7834	Variable	Question Items	Loading Factor	Reliability
The look of the site captivates the hearts of customers0.766Website designThe combination of site ornaments looks beautiful0.6820.8644attractivenessThe colour blend of the website 		Attractive visual design	0.827	
design attractivenesslooks beautiful0.6820.8644attractivenessThe colour blend of the website captivates the hearts of customers0.517Website content is communicated in an attractive format0.521Appropriate information and services0.496Be-commerce marketplace reputationWell-known by customers0.687 0.764Superior compared to competitors Corporate attractiveness0.74 0.7670.8011Perceived ease of transactionEase of payment method0.743 0.7430.7932Perceived ease of transactionEase of product search procedure Disclosure of information during the transaction process Easy to use0.577 0.574Perceived valueSecure online shopping confidence in choosing the product Confidence in choosing the product0.515 0.515Online decisionOnline oubt0.679Online decisionPrefer the product compare to others0.7610.7834		The look of the site captivates the	0.766	
attractivenessThe colour blend of the website captivates the hearts of customers Website content is communicated in an attractive format0.517Website content is communicated in an attractive format0.521 Appropriate information and services0.496E-commerce marketplace reputationWell-known by customers Superior compared to competitors Corporate attractiveness0.687 0.740.8011Perceived ease of transactionEase of payment method Disclosure of information during the transaction process0.574 0.7740.7932Perceived ease of valueSecure online shopping Confidence in choosing the product0.573 0.5730.8071Online purchase decisionOnline shopping can save time product0.763 0.5150.8071Online decisionOnline shopping can save time product0.515 0.5150.8071Online decisionOnline shopping can save time product0.515 0.5150.8071Online decisionOnline shopping can save time product0.515 0.5150.8071Online decisionOnline shopping can save time product compare to others0.6690.7834			0.682	0.8644
E-commerce marketplace reputationin an attractive format information and services0.496E-commerce marketplace reputationWell-known by customers Superior compared to competitors Corporate attractiveness0.687 0.7640.8011Perceived ease of transactionEase of product search procedure Disclosure of information during the transaction process Easy to use0.743 0.7740.7932Customer- perceived easeOnline shopping can save time 0.7320.577 0.7720.8071Customer- perceived tableOnline shopping can save money 0.7220.763 0.7630.8071Customer- perceived tableOnline shopping can save money 0.7220.726 0.7630.8071Online purchase decisionOnline shopping can save money 0.7220.763 0.7630.7834Online purchase decisionPrefer the product without any others Search for the product when it is needed0.7610.7834	U	captivates the hearts of customers	0.517	
E-commerce marketplace reputationservices0.496Well-known by customers reputation0.687 Superior compared to competitors Corporate attractiveness Corporate reputation0.687 0.764 0.8011Perceived ease of transactionEase of payment method Disclosure of information during the transaction process Easy to use0.77932 0.7932Perceived ease of transactionEase of product search procedure Disclosure of information during the transaction process Easy to use0.574 0.7932Perceived ease of transactionSecure online shopping Confidence in choosing the product Choosing the product without any doubt0.679 0.7834Online purchase decisionOrfer the product compare to others Search for the product when it is needed0.761		in an attractive format	0.521	
marketplace reputationWell-known by customers0.687 compared to competitors0.7640.8011Superior compared to competitors Corporate attractiveness0.74 Consistent corporate reputation0.591 Ease of ordering procedure0.767 Ease of ordering procedure0.767 Ease of ordering procedure0.709 0.743 Ease of product search procedure0.709 0.7932Perceived ease of transactionEase of product search procedure Disclosure of information during the transaction process0.5740.7932Perceived ease of transactionOnline shopping can save time Perceived0.732 Secure online shopping0.859 0.80710.8071ValueOnline shopping can save money product Choosing the product without any doubt0.679 0.5150.7834Online purchasePrefer the product compare to others Search for the product when it is needed0.7610.7834			0.496	
marketplace reputationSuperior compared to competitors Corporate attractiveness0.764 0.740.8011Perceived ease of transactionEase of ordering procedure Ease of product search procedure Disclosure of information during the transaction process0.709 0.79320.7932Customer- perceived ease of transactionOnline shopping can save time the shopping can save money the shopping can save money the shopping can save money the product the product without any the product without any the purchase decision0.764 0.79320.7932Online purchase decisionOnline product compare to others Search for the product when it is needed0.7610.7834		Well-known by customers	0.687	0.0011
TeputationCorporate attractiveness0.74Consistent corporate reputation0.591Ease of ordering procedure0.767Ease of payment method0.743ease of transactionEase of product search procedure0.709Disclosure of information during the transaction process0.574Easy to use0.57Twenty-four hours transaction0.661Customer- valueOnline shopping can save time0.732Perceived tvalueSecure online shopping0.8590.8071ValueOnline shopping can save money product Choosing the product without any doubt0.679Online purchasePrefer the product compare to others Search for the product when it is needed0.761Online decision0.692	-	•	0.764	0.8011
Perceived ease of transactionConsistent corporate reputation procedure0.591 0.767 Ease of payment method0.743 0.743 0.7932Perceived ease of transactionEase of product search procedure Disclosure of information during the transaction process Easy to use0.574Customer- perceived valueOnline shopping can save time 0.7120.732 0.859Customer- perceived valueOnline shopping can save time 0.763 Confidence in choosing the product Choosing the product without any doubt0.679 0.7932Online purchase decisionPrefer the product compare to others Search for the product when it is needed0.761	reputation		0.74	
Perceived ease of transactionEase of payment method0.743 Ease of product search procedure0.709 0.7932Disclosure of information during the transaction process Easy to use0.574Customer- perceivedOnline shopping can save time0.732 0.732valueOnline shopping can save time0.743 0.574ValueOnline shopping can save time0.732 0.859Clear and understandable0.763 0.763Confidence in choosing the product doubt0.515 0.515Online decisionPrefer the product compare to others Search for the product when it is needed0.761		Consistent corporate reputation	0.591	
Perceived ease of transactionEase of product search procedure poisclosure of information during the transaction process0.709 0.574Customer- perceivedOnline shopping can save time secure online shopping0.57 0.57ValueOnline shopping can save time 0.7320.7932ValueOnline shopping can save time 0.7630.7932Clear and understandable product Choosing the product without any doubt0.679Online purchase decisionPrefer the product compare to others Search for the product when it is needed0.761			0.767	
ease of transactionEase of product search procedure0.709 0.7932ease of transactionDisclosure of information during the transaction process0.574Disclosure of information during the transaction process0.574Easy to use0.57Twenty-four hours transaction0.661Customer- perceivedOnline shopping can save time0.732perceived valueSecure online shopping0.8590.8071ValueOnline shopping can save money Clear and understandable0.763Confidence in choosing the product Choosing the product without any doubt0.679Online purchasePrefer the product compare to others Search for the product when it is needed0.761	Demosived	Ease of payment method	0.743	
transactionDisclosure of information during the transaction process0.574transaction0.661Customer- perceivedOnline shopping can save time0.732perceived valueSecure online shopping0.8590.8071ValueOnline shopping can save money Clear and understandable0.763Confidence in choosing the product Choosing the product without any doubt0.679Online purchasePrefer the product compare to others Search for the product when it is needed0.761		Ease of product search procedure	0.709	0 7022
Easy to use0.57Twenty-four hours transaction0.661Customer- perceivedOnline shopping can save time0.732valueSecure online shopping0.8590.8071ValueOnline shopping can save money Clear and understandable0.763Confidence in choosing the product Choosing the product without any doubt0.679Online purchasePrefer the product compare to others Search for the product when it is needed0.761		-	0.574	0.7932
Customer- perceivedOnline shopping can save time0.732valueSecure online shopping0.8590.8071valueOnline shopping can save money0.72Clear and understandable0.763Confidence in choosing the product0.515Choosing the product without any doubt0.679Online purchasePrefer the product compare to others0.761Search for the product when it is needed0.692		Easy to use	0.57	
perceived valueSecure online shopping Online shopping can save money0.859 0.720.8071ValueOnline shopping can save money Clear and understandable0.763 0.7630.763Confidence in choosing the product Choosing the product without any doubt0.6790.7834Online purchase decisionPrefer the product compare to others Search for the product when it is needed0.692		Twenty-four hours transaction	0.661	
valueOnline shopping can save money0.72Clear and understandable0.763Confidence in choosing the product0.515Choosing the product without any0.679Online purchasePrefer the product compare to others0.761Search for the product when it is needed0.692	Customer-	Online shopping can save time	0.732	
Clear and understandable0.763Confidence in choosing the product0.515Choosing the product without any doubt0.679Purchase decisionPrefer the product compare to others Search for the product when it is needed0.763	perceived	Secure online shopping	0.859	0.8071
Confidence in choosing the product Choosing the product without any doubt0.515Online purchase decisiondoubt0.679Prefer the product compare to others Search for the product when it is needed0.7610.7834	value	Online shopping can save money	0.72	
product0.513OnlineChoosing the product without any doubt0.679purchasePrefer the product compare to others0.761Search for the product when it is needed0.692		Clear and understandable	0.763	
Online purchasedoubt0.679purchase decisionPrefer the product compare to others0.7610.7834Search for the product when it is needed0.692			0.515	
decision others 0.761 Search for the product when it is 0.692	Online	• • •	0.679	
Search for the product when it is needed 0.692	1		0.761	0.7834
		Search for the product when it is	0.692	
		Choose the product as its benefit	0.58	

BISMA (Bisnis dan Manajemen) Volume 15 Issue 2, April 2023 Page 229–254 E-ISSN 2549-7790, P-ISSN 1979-7192

Appendix 2.

Assessing goodness of fit

The goodness of the Fit index	Cut-off value	Research Model	Model
Chi-square =\cmin	Expected Small (> 0.05)	387.359	Fit
Probability = p	≥ 0.05	0	Not fit
RMSEA=\rmsea	≤ 0.08	0.046	Fit
CMIN/DF=\cmindf	≤ 2.0	1.467	Not fit
GFI=\gfi	≥ 0.90	0.88	Not fit
AGFI=∖agfi	>0.90	0.852	Not fit
TLI=\tli	>0.90	0.929	Fit
IFI=\ifi	>0.90	0.939	Fit
CFI=\cfi	≥ 0.90	0.938	Fit
NFI=\nfi	≥ 0.90	0.83	Not fit

Appendix 3.

Standardised direct effects

	Perceived ease of transaction	E-commerce marketplace Reputation	Attractiveness Website Design
Customer- perceived value	0.211	0.261	0.174
Purchase decisions	0.415	0.059	0.04

Appendix 4.

Standardised indirect effects

	Perceived ease of transaction	E-commerce marketplace Reputation	Attractiveness Website Design
Customer- perceived value	0	0	0
Purchase decisions	0.052	0.065	0.043