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The important role of website characteristics (E-Commerce) and service quality on the intensity of customer purchases

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ABSTRACT

This study observed more than 150 respondents in the digital trading environment, explaining how the important role of website characteristics and service quality influences customer purchase intensity. PLS-SEM analysis of the data was performed using SMARTPLS version 3 software. After that, the samples were collected through an online questionnaire by setting several criteria to make the resulting perceptions accurate. The study's findings show that while a website's features have a big impact on customer trust, customer loyalty, and purchase intensity can all be directly impacted by the quality of the product or service offered. However, unfortunately, customer trust and satisfaction cannot mediate website characteristics in their influence on customer purchase intensity. Overall, this study expands the understanding in the field of trade that service quality and website characteristics significantly influence increasing customer buying intensity.

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1. Introduction

These days, with globalization and the advancement of information technology modernizing business, it is more important than ever to use electronic commerce, or e-commerce, for conducting commercial transactions. Several businesses, especially newer ones, now place a premium on this (Jain et al., 2021). Digital marketing, advertising, communication platforms, and novel financial methods substantially and favorably impact businesses' financial outcomes (Kurniawan et al., 2023). The electronic conduct of business operations and transactions over the Internet is referred to as e-commerce (Guo et al., 2020). It combines traditional economic practices with the growing virtual world, making it possible for the physical and digital domains to interact by facilitating the exchange of capital, ideas, and goods. Moreover, Indonesia is the largest country in e-commerce growth, recording a growth of around 78 percent, followed by Mexico, with a growth rate of around 56 percent, based on information made public in 2019 by the Ministry of Communication and Information. That demonstrates people's fascination with online purchases (Forte, 2001). It would be best to maximize the financial returns to get the most out of this. Lin et al. (2019) suggest measures to increase e-commerce site trust, customer loyalty, and consumer pleasure.

In online business, Trust is crucial since it encourages desirable actions like the desire to buy. The success of any online store depends on the degree of trust between a business and its customers (Castaldo et al., 2010). According to Fan et al. (2021), this Trust is crucial since it can lessen or eliminate anxiety over transactions conducted on the e-commerce platform. According to Hong and Cha (2013), If buyers believe there is a lot of danger involved, they are more likely to back out of the transaction, be it from the site itself (poor product quality), the user experience (difficulty navigating the interface), their finances, or their ability to complete payment. If customers feel safe doing business with a company they trust, they will be more inclined to participate in dangerous online trades. This is important to take the best possible financial outcomes.

With customer loyalty to e-commerce sites owned by a company, many transactions will increase revenue for e-commerce sites owned by that company (Gajewska et al., 2020). Behavioral and attitudinal loyalty are the two components of loyalty

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(Kumar & Shah, 2004). According to (Nadiri et al., 2008), customer loyalty is a repurchase behavior indirectly influenced by social commerce and E-WOM (Electronic Word of the Month). Moreover, according to (Sonmezay & Ozdemir, 2020), attitudinal loyalty is customer loyalty directly influenced by purchase intention or behavior (behavioral loyalty). Moreover, satisfaction, price, quality, and transactions influence customer loyalty to an e-commerce site (El-Adly, 2019). That is also crucial in ensuring that customers continue purchasing in-store or via the company's online store. Research conducted by (Chiu & Cho, 2019) stated that increasing customer satisfaction in e-commerce is essential. Businesses need to concentrate on elements that positively impact consumer satisfaction, which ultimately influences purchase intention. These elements include quality, value, innovation, and popularity. These elements also positively influence the level of trust itself. In addition, the same thing was conveyed by (Attar et al., 2021), that client satisfaction and purchase intents are greatly impacted by the trustworthiness and legitimacy of e-commerce websites. These two studies concentrate on how to raise an e-commerce site's brand awareness and satisfaction based on trust. Next, studies look into ways to improve trading outcomes on e-commerce platforms. Numerous studies have examined customer satisfaction and trust in e-commerce transactions. The previous research conducted by (Lin et al., 2019) specifically discussed how customers trust e-commerce sites owned by a company. Moreover, at the same time, previous research also discussed the significance of Trust that influences customer satisfaction which directly influences purchase decisions or repurchase intentions. Then in research conducted by (Molinillo et al., 2021), it was found that the information and quality of service available on e-commerce sites or websites is one of the values perceived by customers, and the value felt by these customers greatly influences customer loyalty. Regretfully, nonetheless, based on the researcher's views, the two earlier investigations completed by (Lin et al., 2019) and (Molinillo et al., 2021) did not specifically discuss how customers can get a sense of Trust, satisfaction, and loyalty to e-commerce sites. That is a point of development as well as a point of improvement in explaining customer trust, satisfaction, and loyalty. The first is about the services that online retailers offer their clients or consumers. No previous research has looked at how service quality affects consumer satisfaction and loyalty on this e-commerce site. Thus, in order to create and manage service quality, businesses that run e-commerce sites must be successful (Cronin & Taylor, 1992). The second is the effectiveness of the website or ecommerce site itself; as stated by (Molinillo et al., 2021) in a previous study, information and services on e-commerce sites are essential factors for the level of customer loyalty. Unfortunately, this research does not explicitly discuss how and what factors influence customer perceived value. That is in line with (Cober et al., 2004), who stated that website characteristics such as system features, aesthetic features, and convenience when using them have proven to positively influence the attractiveness of users or visitors to the website. Moreover, in research conducted by (Axenbeck & Breithaupt, 2021), the results suggest that the characteristics of these websites are essential in attracting customers to visit and use certain websites. From the two studies, the characteristics of a website or e-commerce are essential to attract customers and influence them to use a website or e-commerce that the company owns.

Several of the explanations point to two areas that researchers are concentrating on in order to enhance and create a more thorough model that explains the significance of service quality on an online store and what the features of the website or the e-commerce site itself are. Researchers assume that these two factors will affect and be able to increase the value felt by customers. Thus, creating a model is the aim of this study. that will explain how to enhance service quality, influence website or e-commerce site attributes, and boost trust, satisfaction, and buy intensity. Especially in international trade, which is significantly capable of influencing economic growth, be it positive or negative (Haryana et al., 2022), it will also affect the finances of business actors.

From the preceding, two research questions emerge: (1) How does service quality affect consumer trust and satisfaction? (2) explain how a website's or e-commerce site's characteristics influence customer site loyalty. This kind of research needs to be done because it can provide information regarding how these two elements affect client happiness, loyalty, trust, and buy intensity. In addition, the findings obtained can later become the basis for developing research from previous studies. Therefore, the purpose of this study is to examine service quality and website characteristics or characteristics of e-commerce sites on purchase intensity.

2. Literature review and hypothesis development

Researchers have examined the impact of several elements, including consumer behavior, on higher purchase intensities. Using the Customer's role, such as the trading environment and the quality of customer evaluations, can boost purchase intensity, according to research by Lin et al. (2019). Of course, this significantly impacts Trust between the business and its customers. However, research by (Gofur, 2019) found that internal aspects of a firm with an online store were more influential than consumers' actions in boosting customers' Trust, satisfaction, and loyalty. There are two types of internal criteria to consider: those related to the service quality and those unique to the online storefront.

2.1 Service Quality and Supporting Aspects

The first group research emphasizes service quality's important role in increasing customer trust and loyalty. (Wang et al., 2016) stated that the quality of this service can positively influence the value felt by customers, which is, of course, obtained from sites or e-commerce. Moreover, according to (Wu et al., 2015) that the role of service quality includes several aspects, such as reliability, responsiveness, and security provided by websites or e-commerce. That is important because if customers perceive the reliability and security of a website or e-commerce, their evaluation will be more positive (Huang & Benyoucef,

2013). Thus, a key element in raising client happiness will be the caliber of this service. The first factor is the degree of reliability, which is defined as an online store's or website's capacity to reply to inquiries from users, update its services to improve user experience, and ensure that purchases made there are accurate. Themselves (Santos, 2003). Many studies state that the most significant measure of service quality is dependability. As stated by (Wolfinbarger & Gilly, 2003) and (Lee & Lin, 2005), the positive assessment of this Customer is strongly influenced by the level of reliability of a website or e-commerce and is also a predictor of the level of significance of the service quality itself. So reliability is important to note because it concerns customer convenience in transacting on a website or e-commerce; even with a good level of reliability, the Customer's perceived value will be good, which triggers the level of Trust and intensity of customer purchases.

The second factor is how responsive a website or online store is, which will show up most frequently in customer evaluations because it is something that customers will experience firsthand while conducting business online. That agrees with the claim made by (Olorunniwo & Hsu, 2006), who say that responsiveness is considerably more critical than others in the Customer's judgment of the quality of service provided via a website or e-commerce. Sharma (2018) agrees that the speed with which a website or e-commerce solves a customer's problem is the single most crucial aspect in the eyes of the client when weighing the overall quality of the service they receive. Customers care deeply about how quickly and accurately a business responds to them because it improves their confidence and reduces uncertainty while conducting business online. Numerous research, like those by Zemblytė (2015), Ramya (2019) and Li et al. (2009), attest to the importance of immediacy in determining the caliber of a service. Moreover, some argue that responsiveness moderately impacts service quality (Li et al., 2009).

The last aspect is the security aspect. Shopping on websites or e-commerce has many advantages, such as saving time because customers do not have to come to the seller's shop, so transactions are fast and easy, and of course, with 24-hour support and service from the e-commerce platform (Sohel Rana et al., 2015). Moreover, this security aspect is essential for e-commerce services because this security aspect is among the factors of the level of service quality of a website or e-commerce. This security aspect is important because many people are not responsible for committing fraud or misusing customer data for their gain. Moreover, the theory of security motivation must be applied in several research studies on security, analyzing how customers respond when transacting on websites or e-commerce.

Looking at some of the previous research, researchers believe that by maximizing the reliability, responsiveness, and security level, service quality will improve service quality, which can simultaneously influence customers in making transactions and increase the intensity of customer purchases. Nevertheless, some research indicates that while service quality may not directly impact the intensity of payment, it can have a direct impact on satisfaction levels. But this study also indicates that the intensity of payment is more significantly influenced by the perceived value of the clients (Demir et al., 2020).

Many explanations for how consumer trust, customer happiness, and site loyalty influence purchase intensity have been provided by earlier studies. Moreover, this service quality variable explains why customers can trust and want to transact on a website or e-commerce. Researchers believe that maximizing the service quality variable will help customers as well as help companies that own websites or e-commerce in increasing customer perceived value and simultaneously increasing customer buying intensity. Therefore, the researcher proposes several hypotheses as follows.

H₁: Service quality has a positive influence on social trading trust.

H₂: Service quality has a positive influence on customer satisfaction.

2.2 Website Characteristics or E-Commerce Characteristics

The second research group is researching whose primary focus is the critical role of the website or e-commerce characteristics in increasing site convenience and customer loyalty. Customers make transactions on a website or e-commerce because of the social features provided and meet customers' expectations (Bartunek et al., 2006). However, the characteristics and mechanisms of this website or e-commerce platform are not yet evident in their influence on customer purchase intentions. The same thing was said by (Kassim & Asiah Abdullah, 2010), that the convenience of the characteristics of this website is essential, especially the experience of transactions involving finance and problem-solving, and of course, the ease of using websites or e-commerce. The convenience of transactions and simplicity of use of a website or e-commerce greatly influence customer perceptions during e-dealing or purchasing decisions, ultimately affecting customer loyalty to websites or e-commerce (Mang'unyi et al., 2018). Research conducted by (Pratesi et al., 2021) states that ease of navigation, website, or e-commerce efficiency will give a good impression to customers; this results in customers placing orders or having purchase intentions which, of course, leads to customer purchase intensity. That is reinforced by the statement of (Cry, 2006), which states that a good website or e-commerce design will also positively impact customer satisfaction. So, when customers get convenience, comfort, and efficiency when making transactions on a website or e-commerce, the Customer will feel comfortable, and their Customer's purchase intention will increase, and of course, website loyalty will form the Customer.

In their study, Kidane and Sharma (2016) stated that business actors in the electronic commerce industry are significant in designing superior websites or e-commerce, providing services, and getting customer satisfaction. The website or e-commerce itself is a place that provides various facilities for customers to build solid relationships and, of course, generate value through

collaboration and social networking (Sharma & Baoku, 2013). Moreover, the characteristics and design of this website or e-commerce significantly affect customer satisfaction (Sohel Rana et al., 2015). That will affect customers' value, affecting customer satisfaction in transactions on websites or e-commerce (Khalid et al., 2018). Also, unlike previous research, which focused more on external factors like the trading environment and the quality of customer reviews, (Lin et al., 2019) examine the role of the characteristics of the website or e-commerce, where this variable becomes an internal variable for business actors in the field of electronic commerce (in this case, the owner of a website or e-commerce). Researchers think these internal elements might favor customers' impressions and, ultimately, their shopping behavior. That means businesses, websites, and e-commerce owners benefit from carefully managing their features and designs since consumers will have a more favorable experience. Success in managing this website or e-commerce will lead to customer trust, convenience in making transactions, the positive value that customers feel, and a good experience while using the website or e-commerce, and customers become loyal to the sites they use. Therefore, researchers also put forward the following hypothesis:

H₃: Website Characteristic has a positive influence on Social Trading Confidence.

H₄: Website Characteristic has a positive influence on Site Loyalty.

3. Research Gap: The importance of the role of the website or e-commerce characteristics and service quality on the level of Trust, satisfaction, loyalty, and purchase intensity.

By measuring the effectiveness of the website or e-commerce characteristics (website design) and service quality, it becomes essential to see whether these two variables have a positive influence. In previous research, it has been observed that the positive influence of these two result-oriented variables is quite positive on increasing customer happiness, customer loyalty, customer trust, perceived value, and consumer purchase intensity. (Rashwan et al., 2019) state how important the characteristics of a website or e-commerce are that can provide convenience to customers and positive reviews to other customers. The study of (Khalid et al., 2018) also obtained favorable results, which stated that the characteristics of this website or e-commerce could influence customer satisfaction. If the business actor (website or e-commerce owner) can maximize this, customers will feel comfortable, safe, and trust the website or e-commerce they use. The assessment of service quality constitutes the second component. This and the previous variable are closely related and equally crucial for assessing the quality of service offered by an e-commerce website. Because the quality of this service dramatically determines the value customers feel and customer satisfaction with services provided by websites or e-commerce (Wang et al., 2016). The same finding was made in previous research, which found that a website's responsiveness, security, and dependability were the most crucial aspects of service quality that ultimately influenced how customers perceived the website or e-commerce as well as their level of satisfaction and loyalty (Wu et al., 2015). Maximizing and implementing these two variables will positively impact customers' perceived value and perception of a website or e-commerce they use, such as increasing social commerce trust, customer satisfaction, customer loyalty to websites or e-commerce, and finally, increasing purchasing decisions. Moreover, in the end, these two variables can help business actors (in this case, website or e-commerce owners) increase purchasing intensity, which affects increasing trading results. Therefore, the researcher proposes the hypothesis as follows:

H₅: Social Trading Trust has a positive influence on Buying Intensity.

H₆: Social Trading Trust has a positive influence on Customer Satisfaction.

H₇: Social Trading Trust has a positive influence on Customer Loyalty.

H₈: Customer Loyalty has a positive influence on Purchase Intensity.

H₉: Customer Satisfaction has a positive influence on Purchase Intensity.

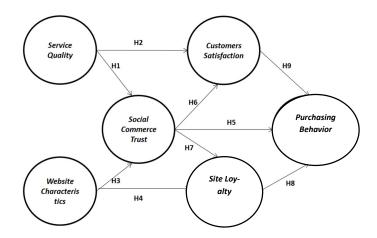


Fig. 1. Research Model

4. Data and methodology

4.1 Sample and Data Collection

To better understand how consumers make decisions based on Trust in social commerce, this research will obscure many of the hypotheses made in previous studies. The researcher recruits' participants (in this case, consumers) by randomly selecting them from the larger population to participate in an online survey. The eligibility requirements for the poll were (1) making at least three e-commerce purchases in the previous three months (or once a month on average) and (2) engaging in social commerce activities or an environment with knowledge of online shopping) during the previous three months. To measure respondents' perceptions and understanding of e-commerce, we asked several key questions, including whether they had participated in the evaluation and reporting of other customers in e-commerce and whether they had participated in evaluating or commenting on goods in the sense of conducting product evaluations of goods obtained through online shopping sites (ecommerce). It took almost a month to gather all the data. The data for this study came from a self-reported online survey. The GoogleForm web form makes it easy to take surveys in the digital realm. The survey was sent in Indonesian for a month, from 8 September 2022 to 9 October 2022. The authors of this online survey provide clear and comprehensive summaries of the operational definitions underlying each group, and the indicator items used to measure variables are clear and straightforward. The author also reminded respondents that the information obtained from the survey should reflect their experience with the e-commerce or online platform in question. The research model construct indicators were used to evaluate respondents' responses to a formal survey. A five-point Likert scale is used to rate indications of change, with one representing strong disapproval and five being strong agreement.

4.2 Variable Definitions

This theoretical framework uses a total of six latent variables. Two indices show internal factors influencing user trust, satisfaction, and loyalty to a particular website. The second factor consists of three aspects: the Customer's perceived value (including their level of satisfaction, level of Trust, and commitment to return to the site or e-commerce). The final component is the final two-part effect on the intensity variable or final purchase outcome. These six characteristics are evaluated using indicators derived from predetermined studies. See the table below for details on the variables, indicators, and sources consulted throughout the questionnaire's compilation.

5. Data analysis

To analyze the study's data, partial least squares and structural equation modeling (PLS-SEM) were combined. Using SMARTPLS 3.3.0 aided in the PLS-SEM analysis. The Model used in this study was built using a Confirmatory Factor Analysis (CFA) strategy, and indicators for each latent variable were determined theoretically in previous studies. PLS-SEM analysis consists of evaluating the Outer Model and the Inner Model. Utilizing a series of statistical tests and the Outer Model-a collection of indicators derived from the survey-the validity and reliability of the components were evaluated. Convergent validity is determined first; then, discriminant validity determines the instrument's reliability. Cronbach's alpha (CA) and Composite Reliability (CR) were employed to evaluate the dependability of the device. If the CR and CA values for the latent variables are both more than 0.70, then it is considered reliable if the CFA method is used. According to (Ghozali & Imam, 2018), the AVE (Average Variance Extracted) value is used to test convergence validity and must be more than 0.50 to be considered valid. Table A1 in Appendix presents details of the questionnaire. Table 1 also shows the CFA model assessment.

Table 1
CFA Model Assessment

Variable	Item	Factor Loading	CA	rho_A	CR	AVE
	CS.1	0.911				
Customers Satisfactions	CS.2	0.931	0.042	0.044	0.050	0.053
	CS.3	0.925	0.942	0.944	0.958	0.852
	CS.4	0.925				
	PB.1	0.882				
Purchasing Behavior	PB.2	0.909	0.891	0.895	0.932	0.821
	PB.3	0.927				
	SCT.1	0.881	0.871	0.871	0.913	0.723
Social Commerce Trust	SCT.2	0.768				
Social Commerce Trust	SCT.3	0.874				
	SCT.4	0.874				
	SL.1	0.821		•	•	
	SL.2	0.857				
Site Loyalty	SL.3	0.825	0.854	0.863	0.895	0.632
	SL.4	0.747				
	SL.5	0.719				

Table 1CFA Model Assessment (Continued)

Variable	Item	Factor Loading	CA	rho_A	CR	AVE
	SQ.1	0.757			•	
	SQ.2	0.774				
	SQ.3	0.747				
_	SQ.4	0.789				
	SQ.5	0.855				
	SQ.6	0.830				0.613
	SQ.7	0.806		0.961	0.964	
_	SQ.8	0.755				
Service Quality	SQ.9	0.734	0.960			
	SQ.10	0.835				
	SQ.11	0.797				
	SQ.12	0.743				
	SQ.13	0.747				
	SQ.14	0.816				
	SQ.15	0.762				
	SQ.16	0.782				
	SQ.17	0.767				
	WC.1	0.834			•	
_	WC.2	0.853				
Website Characteristics	WC.3	0.826	0.914	0.919	0.933	0.700
website Characteristics	WC.4	0.813	0.914	0.919	0.933	0.700
	WC.5	0.829				
	WC.6	0.862				

With factor loadings of more than 0.70, all indicators included in this study adequately describe the constructs of interest. The table indicates that the values of Cronbach's alpha (CA) and Composite Reliability (CR) are higher than 0.70. Indicators and variables included in this study are deemed credible if the Average Variance Extraction (AVE) value is more than 0.50. In addition, the HTMT value or Heterotrait-Monotrait value checks the instrument's ability to discriminate. The HTMT ratio must be less than 0.90 for the instrument to be reliable. (Henseler et al., 2018). Heterotrait-Monotrait Ratios (HTMTs) for all variables are stated to be less than 0.90 in Table 2. Moreover, this proves that the instruments in this study can be relied upon to measure the built Model.

Table 2 HTMT Ratio

	CS	PB	SCT	SL	SQ	WC
Customers Satisfactions	0.923					
Purchasing Behavior	0.473	0.906				
Social Commerce Trust	0.680	0.439	0.851			
Site Loyalty	0.535	0.760	0.619	0.795		
Service Quality	0.694	0.551	0.786	0.678	0.783	
Website Characteristics	0.546	0.520	0.696	0.662	0.818	0.836

To find the predictive potential of the conceptual model, the independent variable's variance and dependent variables is evaluated using the Inner Model (Structural Model). This contains four distinct types of measurement analysis. At this point, R2 is emphasized to determine how various attributes affect the relationship. Evaluating the overall effect of external stimuli on internal components is the goal. The second step uses a bootstrapping approach with a subsample of 5000 to investigate the coefficients of indirect and direct pathways. The t-statistical value and p-value for this test need to be less than 0.50 for the relationship between latent variables to be considered significant. In the end, a Goodness of Fit study of the combined measurement and structural models is required to validate the overall structural model. This stage involves evaluating the Chi-Square, NFI, and SRMR values. In order to further validate the model, predictive relevance analysis is also carried out using a Blindfolding technique that uses cross-validated redundancy (Jr. et al., 2017).

6. Findings

6.1 Respondent profile

In collecting data in this study, the respondents have several characteristics, such as work background, education, the area where they live, and the age gap between the respondents. In addition, respondents are also required to be internet users and participate in electronic commerce transactions or E-Commerce.

Table 3 Characteristics Sample

Business Profil	Frequency	Percentage	Business Profil	Frequency	Percentage
Edu	cational			Age Vulnerable	
Middle School	4	2,67%	16 - 20	14	9,33%
Hight School	82	54,67%	21 - 30	116	77,33%
Diploma	51	34,00%	31 - 40	13	8,67%
Bachelor Degree	12	8,00%	41 - 50	7	4,67%
Magister Masters	1	0,67%	Marketplace Users		s
Pro	ofession		Yes	150	100,00%
State Civil Apparatus (Asn)	1	0,67%	No	0	0,00%
Private Sector Employee	53	35,33%		Internet User	
Undergraduate Student	41	27,33%	Yes	150	100,00%
Graduate Student	1	0,67%	No	0	0,00%
Trader	11	7,33%		Gender	
Self-Employed	11	7,33%	Male	46	30,67%
etc.	32	21,33%	Female	104	69,33%

The history of the respondents is described in Table 4. The data presented indicates that among the 150 respondents, 148 individuals (or 98.67%) utilized the market to acquire goods and services. Table 4 displays the highest proportion of internet users that achieve a flawless score of 100 percent. Private sector workers led the survey with 53 responses (35.33%), followed by undergraduates with 41 responses (27.33%). More than two-thirds (104/150; 69.33%) of the respondents were women, indicating that women like internet shopping.

6.2 PLS-SEM Analysis Requirements

The PLS-SEM test is considered the primary choice due to its ability to handle both normal and aberrant data, without the need for missing values or outliers. Following the data filtering process, researchers acquired a total of 150 participants. The study employed a sample size of 150 people, following the suggestion made by (Jr. et al., 2017) the recommended number of data points suitable for further analysis using the SEM-PLS method should be 5-10 times greater than the number of indicators. Given that this study includes 35 indicators and a sample size of 125, which is considered low, one might conclude that the sample size employed here is sufficient.

Table 4 Inner VIF Assessment

CS	PB	SCT	SL	SQ	WC
	1.936				
2.616	2.239		1.937		
	1.687				
2.616		3.024			
		3.024	1.937		
		1.936 2.616 2.239 1.687	1.936 2.616 2.239 1.687 2.616 3.024	1.936 2.616 2.239 1.937 1.687 2.616 3.024	1.936 2.616 2.239 1.937 1.687 2.616 3.024

Second, whereas PLS-SEM deviates from the requirement of multicollinearity between construct variables and indicators, PLS can compute internal VIF measurements in order to satisfy this need. If the Variance Inflation Factor (VIF), which indicates multicollinearity among the indicators, is greater than 3, there is a problem but as research (Jr. et al., 2017) shows, the VIF values in Table 4 stay below 3, confirming that multicollinearity is not present in our analysis. Lastly, Model Fit testing is performed on the external model and internal performance (Jr. et al., 2017). The official Standardized Root Mean Square (SRMR) should be less than 0.10, preferably 0.08, and the Non-Fidelity Index (NFI) should be greater than 0.9 or nearly 1. These are the benchmarks provided by the official SMART PLS website, and these are the ones that are used. Table 5 shows that the SRMR meets the 0.10 requirement at 0.066 and the NFI registers at 0.749, getting close to 1. Therefore, it can be concluded that the model used in this investigation satisfies the Goodness of Fit standards put forth by the GoF.

Table 5Model Fit Assessment

	Saturated Model	Estimated Model
SRMR	0.062	0.066
d_ULS	3.005	3.418
d_G	1.977	1.987
Chi-Square	1.444.842	1.444.814
NFI	0.749	0.749

6.3 Structural Model (Inner Model)

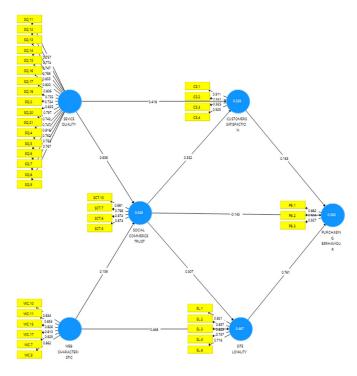


Fig. 2. PLS Algorithm Results

It is necessary to compute the coefficient of determination before evaluating the model of structure. The R² value is obtained using the Partial Least Squares (PLS) method, which is an important metric (See Table 6). This R2 value is utilized, according to, to identify if the results are at high (0.75), moderate (0.50), or weak (0.25) levels (Jr. et al., 2017).

Table 6Coefficient of Determination

	R Square	R Square Adjusted
CS	0.529	0.523
PB	0.593	0.585
SCT	0.626	0.621
SL	0.487	0.480

To perform a more comprehensive assessment of the Inner Model's validity, we will now proceed to analyze the Blindfolding Ratio findings. The "Blindfolding" test assesses how well the produced Model by examining the Q2 value. (Jr. et al., 2017). The value of Q2 is greater than 0.05, it may be inferred that the Model constructed in this study effectively characterizes the phenomenon under examination. The statistical significance (P < 0.05) of the Q2 value in Table 7 was demonstrated in this investigation. The values are 0.444, 0.474, 0.438, and 0.301. The utilization of exogenous elements for the purpose of predicting endogenous factors in this context is logical.

Table 7 Blindfolding Test Results

	SSO	SSE	Q ² (=1-SSE/SSO)
CS	600.000	333.510	0.444
PB	450.000	236.890	0.474
SCT	600.000	336.903	0.438
SL	750.000	524.405	0.301
SQ	2.550.000	2.550.000	
WC	900.000	900.000	

7. Hypothesis Testing Results

The final step in the analysis of the Inner Model is to test the bootstrapping hypothesis. Researchers employed 5000 subsamples to verify the quality of the structural model data (Hair Jr. et al., 2017). Typically, a significant threshold of 5–10% is

employed, which has great importance in the fields of economics and management. The results of the direct correlation study between the latent variables are shown in Table 8. It is clear that customer trust is significantly impacted by service quality, especially when it comes to Social Commerce Trust ($\beta = 0.656$, P-Value = 0.000). There is a significant association between service quality and consumer perceived value, especially in the area of customer happiness ($\beta = 0.418$, P-Value = 0.001), as seen by the notable correlation between service quality and client contentment. The study also highlights the significance of website or e-commerce platform attributes for consumer trust, especially in the context of social commerce trust ($\beta = 0.159$, P-Value = 0.067), and their potential to boost customer loyalty to websites or e-commerce platforms ($\beta = 0.448$, P-Value = 0.000). Furthermore, the data demonstrates that consumer trust, specifically Social Commerce Trust, has a significant impact on customer pleasure ($\beta = 0.352$, P-Value = 0.000), customer loyalty to websites or e-commerce ($\beta = 0.307$, P-Value = 0.002), and purchasing behavior ($\beta = 0.143$, P-Value = 0.091). Furthermore, the impact of consumer loyalty to websites or e-commerce platforms on purchase intensity is significant, as evidenced by the p-value of 0.000 and coefficient of 0.761. Ultimately, a β value of 0.163 and a P-Value of 0.031 demonstrate how well these platforms predict customer satisfaction levels in terms of buying intensity or behaviors.

Table 8Direct Relationship

Hypothesis	Path	Original Sample (O)	STDDEV	T Statistics	P Values
H1	$SQ \rightarrow SCT$	0.656	0.080	8.211	0.000**
H2	$SQ \rightarrow CS$	0.418	0.120	3.472	0.001**
Н3	$WC \rightarrow SCT$	0.159	0.087	1.830	0.067*
H4	$WC \rightarrow SL$	0.448	0.092	4.887	0.000**
H5	$SCT \rightarrow PB$	-0.143	0.084	1.690	0.091*
Н6	$SCT \rightarrow CS$	0.352	0.100	3.503	0.000**
H7	$SCT \rightarrow SL$	0.307	0.099	3.100	0.002**
H8	$SL \rightarrow PB$	0.761	0.060	12.741	0.000**
Н9	$CS \rightarrow PB$	0.163	0.076	2.155	0.031**

^{**} Significant at 5% error * Significant at 10% error.

The results shown in Table 8 demonstrate how the model-mediated link was established. According to Hayes (2018), the intervening (mediation) variable needs to influence the independent variable in order to have an impact on the dependent variable. The findings highlight the importance of the implicit relationship between latent variables, especially the strong correlation between the quality of services and the attributes of websites or e-commerce platforms, which in turn affects how much clients are thought to be worth. This perceived value includes things like customer loyalty to these platforms, transaction satisfaction, and trust in websites or e-commerce platforms. As a result, these variables have a big impact on customers' purchasing behavior or purchasing intensity. The nine proposed hypotheses, including H1, H2, H3, H4, H5, H7, H8, and H9, are validated by these findings.

Table 9 illustrates the presence of an indirect association among latent variables. Moreover, In the table, it is evident that there exists a favorable correlation between service quality and website or e-commerce features, which in turn positively impacts consumer satisfaction, which is mediated as well as strengthened by how the level of Trust of a social trading environment towards a website or e-commerce (Line number: 1 and 2). Customer trust in websites and e-commerce and customer pleasure can favorably and considerably moderate this association between service quality and consumer buy intensity (lane 3, see Figure 2). There is compelling evidence to support the notion that shows the association between purchase intensity and trust is mediated by customer pleasure (Path 4).

Table 10
Indirect Relationship

No.	Path	Original Sample (O)	Standard Deviation	T Statistics	P Values
1	$SQ \rightarrow SCT \rightarrow CS$	0.231	0.079	2.913	0.004**
2	$WC \rightarrow SCT \rightarrow CS$	0.056	0.030	1.839	0.066*
3	$SQ \rightarrow SCT \rightarrow CS \rightarrow PB$	0.038	0.021	1.774	0.076*
4	$SCT \rightarrow CS \rightarrow PB$	0.057	0.030	1.904	0.057*
5	$WC \rightarrow SCT \rightarrow CS \rightarrow PB$	0.009	0.007	1.339	0.181*
6	$SQ \rightarrow CS \rightarrow PB$	0.068	0.043	1.578	0.115*
7	$SQ \rightarrow SCT \rightarrow PB$	-0.094	0.058	1.612	0.107*
8	$WC \rightarrow SCT \rightarrow PB$	-0.023	0.020	1.137	0.256*
9	$SQ \rightarrow SCT \rightarrow SL \rightarrow PB$	0.153	0.058	2.625	0.009**
10	$SCT \rightarrow SL \rightarrow PB$	0.234	0.079	2.957	0.003**
11	$WC \rightarrow SCT \rightarrow SL \rightarrow PB$	0.037	0.022	1.665	0.096*
12	$WC \rightarrow SL \rightarrow PB$	0.341	0.077	4.433	0.000**
13	$SQ \rightarrow SCT \rightarrow SL$	0.201	0.073	2.754	0.006**
14	$WC \rightarrow SCT \rightarrow SL$	0.049	0.029	1.689	0.091*

^{**} Significant at 5% error * Significant at 10% error.

Then, other patterns, such as the pattern shown by (Path numbers: 9, 10, 11, 12, 13, and 14), that the level of Trust in a social trading environment and customer loyalty is proven to be significantly able to mediate the connection between client purchase intensity and the attributes of a web or e-commerce site and service quality (lane numbers: 9 and 11). Another significant

finding pertains to the substantial mediating role of customer loyalty in the association between Trust in a social trading environment the attributes of a website or e-commerce platform, and the level of consumer purchasing activity (lane numbers: 10 and 12). Third is how the degree of trust in a social trading environment significantly mediates the relationship between service quality and website characteristics or e-commerce with customer loyalty to websites or e-commerce (Track numbers 13 and 14).

However, it has been shown that neither Trust in social trading environments nor the level of customer satisfaction can mediate the link between the features of an online store and the level of investment made by customers (Line 5, Paragraph 2). The following pattern (lane 6) demonstrates that customer happiness does not moderate the connection between the website or ecommerce service quality and the frequency with which customers make purchases. Last but not least, it has not been established that Trust in a social trading environment significantly mediates the connection between the quality of an e-commerce site's services and the frequency with which its customers make purchases (see Line 7). business with the frequency with which customers shop (Line 8, Point)

8. Discussion and contribution

Based on the data presented in the tables, which depict both direct and indirect relationships, it can be inferred that the researcher's initial inquiries have been properly addressed. The research model that this researcher has built can explain that the characteristics of a website or e-commerce are essential to and are of particular concern to business actors (in this case, website or e-commerce owners) because this can directly affect the level of customer trust and customer loyalty to a website or ecommerce in a positive and significant way. In addition, the quality of services can influence customer trust and the trading environment and increase customer value and satisfaction positively and significantly. A website's or e-commerce's qualities can have a role in determining the quality of the services it offers, both directly and indirectly. Customer happiness, customer loyalty, and the frequency with which customers shop may all be influenced by the features of an online store, as seen in the table below. The impact of service quality on customer satisfaction, loyalty, and purchasing frequency is comparable. These findings state that a website or e-commerce site's ability to provide quality services can increase Customer perceived value, such as Trust, satisfaction, and customer loyalty, which can increase the intensity of customer purchases. The present findings are consistent with certain findings reported in prior study by (Huang & Benyoucef, 2013), (Kidane & Sharma, 2016), (Ramya, 2019) and (Fan et al., 2021) The aforementioned study posited that the perceived value of service quality offered by a website or e-commerce platform has the potential to enhance consumer trust, contentment, and loyalty. Consequently, this positive impact can considerably contribute to the level of customer transactions or sales. Furthermore, the study's conclusions indicate that a well-designed website or e-commerce significantly and favorably influences consumer happiness, loyalty, and trust levels. It also naturally influences the volume of transactions made by customers. That is consistent with earlier findings, as mentioned by (Pratesi et al., 2021), that navigation and the efficiency of a website or e-commerce can give a positive impression to customers, which influences customers in making transactions. The same thing was also conveyed by (G. Sharma & Baoku, 2013) that what is provided by a website or e-commerce also positively impacts purchase intensity. Not only this kind of character can also increase the level of customer satisfaction in making transactions on websites. Or e-commerce, according to (Sohel Rana et al., 2015) in a previous study. However, unfortunately, in this study, two variables could not mediate other variables. Such as the level of trade environment Trust (SCT) and customer satisfaction (CS) variables are not able to mediate or give a positive effect on the relationship between website characteristics or e-commerce (WC) with purchase intensity or customer buying behavior (PB). That proves that the characteristics of the current website or e-commerce have not been able to give a positive impression on customers while using it. Furthermore, it is not possible for the variable level of customer satisfaction (CS) to mediate or positively influence the relationship between service quality (SQ) and purchase intensity or customer buying behavior (PB); this indicates that trading results and purchase intensity or customer buying behavior are not correlated.

In addition, the variable level of trade environment trust (SCT) also shows the inability to provide or mediate the relationship between service quality (SQ) and purchase intensity or customer buying behavior (PB) and the relationship between website characteristics or e-commerce (WC) and purchase intensity or customer buying behavior (PB). It is conceivable that the standard of customer service does not positively and significantly impact an indirect relationship. Customers' pleasure with the caliber of the services they received hasn't been able to boost the intensity of their purchases; instead, a certain degree of customer trust is required in order to positively influence the intensity of consumer purchases. Additionally, the indirect association between happiness and attributes of a website or e-commerce and purchase intensity shows the same results: customer trust and perceived value do not positively influence the indirect relationship. Apart from being part of the research gap or differentiator from previous research, The results of this investigation validate and bolster earlier studies carried out by X. (Lin et al., 2019) and (Rashwan et al., 2019) by explaining that the effectiveness of Trust in the trade environment can provide a positive impact on purchasing intensity. The second is to explain how the role of the characteristics of this website or e-commerce can increase the perceived value of customers, who then become loyal to the platforms used by customers. Moreover, finally, the quality of the services provided must be maximal, and of course, following what the Customer needs will make it easier to increase customer satisfaction. Additionally, this study adds to the body of knowledge by expanding upon the work of researchers such as (Lin et al., 2019), (Rashwan et al., 2019) and (Dhingra et al., 2020). Accordingly, whether or not a website or e-commerce will be successful in drawing and keeping customers and thereby increasing

commercial results or customer buying behavior depends on a number of factors, including the reliability of the trading environment, the degree of customer satisfaction, and the degree of customer loyalty to the platforms customers use in digital commerce. This research provides contributions and practical implications for business people, especially owners of digital trading platforms or e-commerce. Business actors must maximize the services provided on their website or e-commerce platform by adding more modern payment methods and making it easier for customers to make transactions, such as QR code-based payments (QRIS) and Apple Wallet. In addition, it can add a guaranteed feature for original products sold on the platform, and with this, it is hoped that it will be able to reduce the level of counterfeit goods fraud, which is accompanied by transaction security. In addition, the import-export buying and selling feature is also needed to make it easier for customers and sellers so that customers no longer need to use other international-based platforms. Similarly crucial is the one-way flow of information between customers in the form of reviews; this can be improved by enabling two-way communication via the review menu, which will increase the amount of information shared about products purchased by both parties. Moreover, it will reduce the prevalence of fraud in digital or online transactions.

9. Conclusion and policy recommendations for further research

9.1 Conclusion

This study has proven how the critical role of a website or e-commerce characteristic is integrated with the quality of service provided to customers. The quality of service that can provide convenience in transactions, the security of transactions that have been and will be made by customers, and the reliability of the website or e-commerce itself impact customers' feelings. The perceived value of these customers includes how much they trust the website or e-commerce platform they use and how satisfied they are with the services they use. That will undoubtedly affect customer loyalty in choosing and using websites or e-commerce platforms to make transactions or purchases to fulfill their needs. In addition, visualization, navigation, and ease of operating websites or e-commerce platforms are essential points for customers because these conveniences, such as easy-to-understand feature layouts, will affect customer comfort in operating these platforms. Thus, such characteristics are essential to develop so that customers feel comfortable. Moreover, from that comfort comes the feeling of reusing the platform that customers have used; this triggers a level of customer loyalty to the website or e-commerce platform they use.

9.2 Policy recommendations for further research

In every research, even though it can answer the problems and research objectives, of course, limitations are things that always arise. Moreover, in this study, some limitations must be developed in further research. The first is the limitation of the social trading environment that does not yet have an appropriate perception of the questions posed by researchers; it is hoped that this can be even more maximal to be carried out in future research. The second is the number of respondents who do not represent every class of society, so their perceptions are monotonous and do not vary. That is also expected in future studies to better reach various respondents' backgrounds so that the respondents collected, and the perceptions conveyed vary. Third, the variables that affect the level of customer trust, satisfaction, and loyalty are expected in future research to explore further the various influencing variables, such as the quality of information, the speed of responding to customers, and others. Furthermore, it is anticipated that future studies will be able to optimize these elements and incorporate them into more fascinating studies.

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Appendix

Table A1
Items Questionnaire

Construct	Code	Questionnaire Items	Refer-					
	Definition:							
		ience of transactions and the ease of use of a website or e-commerce significantly affect customer perceptions during the e- cess or purchasing decisions, ultimately affecting customer loyalty to the website or e-commerce.						
	WC.1	Marketplaces such as Tokopedia, Shopee, Lazada, and Bukalapak offer information of exceptional quality.						
Web Site	WC.2 The sources of pertinent information may be accessed through Tokopedia, Shopee, and Lazada Bukalapak.							
Character- istics	WC.3 E-commerce platforms like as Tokopedia, Shopee, Lazada Bukalapak, and others, as well as online banking services, offer user-friendly online payment solutions.							
	WC.4	WC.4 Platforms such as Tokopedia, Shopee, and Lazada Bukalapak, as well as online banks and online banking websites, exhibit a high level of organization.						
	WC.5	There is no freezing of the page on the online bank website.						
	WC.6	The bank's website has an expert system that assists consumers in resolving their issues.						
	Definition:							
	Metrics like the credibility of customer reviews and the friendliness of the platform for first-time buyers determine Trust in the E-Commerce platform.							
Social	SCT.1	The online bank website page is not currently in a state of suspension.						
Commerce	SCT.2	Social media can be relied upon.	(Lin et al., 2019)					
Trust	SCT.3	The buyer feels that other buyers on marketplaces (Tokopedia, Shopee, Lazada Bukalapak) have always had other people's best interests in mind.						
	SCT.4	Customers believed other users on marketplaces like Shopee, Lazada Bukalapak, and Totokpedia were reliable.						
	SCT.5	Customers think fellow customers on marketplaces like Lazada Bukalapak, Shopee, and Totokpedia are reliable.						
	Definition:							
	Three esser	tial aspects must be maximized: site or e-commerce reliability, responsiveness, and convenience. All three can improve						
	SQ.1	Marketpalce (azadaia, shopee, azada bukalapak etc) has a well-organized appearance.						
	SQ.2	Marketplace features (Tokopedia, Shopee, Lazada Bukalapak) help me find and choose the right product.						
Service	SQ.3	Marketplace (Tokopedia, Shopee, Lazada Bukalapak, etc.) can be trusted.	(Dhingra					
Quality	SQ.4	marketplaces (azadaia, shopee, azada bukalapak) instill customers' buying confidence.	et al.,					
C	SQ.5	Marketplaces (azadaia, shopee, azada bukalapak) provide authentic payment methods for customers to pay for purchased prod-	2020)					
	SQ.6	The marketplaces Tokopedia, Shopee, and Lazada Bukalapak are well regarded.						
	SQ.7	Customer personal information is not misused, guaranteed by the marketplace (Tokopedia, Shopee, Lazada Bukalapak).						
	SQ.8	Marketplaces (Tokopedia, Shopee, Lazada Bukalapak) provide product recommendations based on customer preferences.						
	SQ.9	Marketplace (Tokopedia, Shopee, Lazada Bukalapak) provides products to customers according to customer needs.						

	SQ.10	Marketplace services (Tokopedia, Shopee, Lazada Bukalapak) are offered in a language that is easy to understand.				
	SQ.11	Marketplaces (Tokopedia, Shopee, Lazada Bukalapak) provide fast service.				
	SQ.12	Marketplaces (Tokopedia, Shopee, Lazada Bukalapak) are always willing to help customers.				
	SQ.13	Marketplaces (azadaia, shopee, azada bukalapak etc) keep customers updated about product status.				
	SQ.14	Market Place (Tokopedia, Shopee, Lazada Bukalapak) offers other alternatives to minimize inconvenience when services are inefficient.				
	SQ.15	Marketplaces (Tokopedia, Shopee, Lazada Bukalapak) keep their promises to deliver products or services on the specified date.				
	SQ.16	Marketplaces (azadaia, shopee, azada bukalapak) deliver products and services accurately on the first try.				
	SQ.17	Marketplaces (Tokopedia, Shopee, Lazada Bukalapak) maintain accurate customer records.				
	Definition :					
	When a we	bsite or e-commerce is trying to increase the frequency with which a customer buys from a business, it is essential to focus				
E Com- merce Sat-	CS.1	I am satisfied with my whole experience with market palce, including platforms such as Takpedia, Shopee, Lazada, and Bukalapak.	(Lin et al., 2019)			
isfaction	CS.2	Every good and service that the marketplace—which consists of Tokopedia, Shopee, Lazada, and Bukalapak—offers is well-liked by customers.	al., 2019)			
	CS.3	Customers have expressed satisfaction with Tokopedia, Shopee, and Lazada Bukalapak marketplaces.				
	Definition :					
	Because they are more inclined to purchase at the same retailer again, After a positive purchasing experience, buyers are more likely to trust a website or e-commerce.					
	SL.1	Market Palce (azadaia, Shopee, Lazada Bukalapak) experiences a higher frequency of customer visits compared to other platforms within the same category, such as Facebook Market and Kaskus.				
Site Loy- alty	SL.2	Customers' go-to place for purchasing Online goods and services is the marketplace mentioned above (azadaia, shopee, azada bukalapak)	(Flavián et al.,			
	SL.3	The aforementioned application is the preferred platform among customers for purchasing items and services inside the online domain.	2006)			
	SL.4	Over the previous several months, customers have not been very active on websites like Tokopedia, Shopee, and Lazada Bukalapak that provide comparable goods and services to Market Place.				
	SL.5	Typically, customers refrain from purchasing items and services within this particular category from alternative online platforms.				
	Definition :					
	When client	ts are driven to participate in E-Commerce activities or transactions, receive enough information to be happy with the services				
Purchasing	PB.1	Typically, consumers make purchases from several online marketplaces like as Tokopedia, Shopee, Lazada, and Bukalapak.	(Lin et			
Behaviour	PB.2	Market Palce (Tokopedia, Shopee, Lazada Bukalapak) is frequently frequented by customers for their shopping needs.	al., 2019)			
	PB.3	Customers express a desire to make a purchase from various online marketplaces such as Tokopedia, Shopee, and Lazada Bukalapak.				



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