



RESEARCH ARTICLE

The Influence of E-Commerce Trust, Site Loyalty, and Satisfaction on Digital Consumer Purchase Behavior

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Abstract

The rapid growth of the e-commerce sector has transformed the way consumers interact with the market. Key factors influencing consumer purchase decisions on digital platforms include trust in the site, user loyalty, and customer satisfaction. This study aims to analyze the relationship between these three factors and consumer purchase behavior. Data were collected through a survey of 300 respondents with active online shopping experience, using a five-point Likert scale questionnaire. The analytical technique employed was Structural Equation Modeling (SEM) to examine the relationships between variables. The findings indicate that trust in digital platforms significantly influences purchase decisions, followed by customer satisfaction and site loyalty. Additionally, the impact of social media was found to strengthen consumer trust and loyalty, leading to repeat purchases. These findings highlight the importance of maintaining transparent and secure relationships with consumers, as well as providing a sufficient shopping experience to enhance satisfaction and loyalty. This study offers guidance for e-commerce managers in designing effective strategies to retain customers and encourage repeat transactions.

Keywords

E-commerce Trust; User Loyalty; Customer Satisfaction; Purchase Behavior; Social Media; SEM; Digital Platforms.

1 | INTRODUCTION

The rapid advancement of information technology has transformed the way consumers interact with the market. E-commerce, as one of the fastest-growing sectors, has replaced traditional shopping methods. With an increasing number of consumers transitioning to digital platforms, it is crucial to understand the factors that influence their purchase decisions. Trust in e-commerce sites, loyalty to specific platforms, and the satisfaction derived from the shopping experience play significant roles in shaping consumer purchasing behavior in the digital world. Consumer trust can be built through transaction security, product quality assurance, and transparency of information provided by service providers. The greater the trust, the higher the likelihood that consumers will make purchases. Loyalty to a site is also a crucial factor, where consumers who are satisfied with the services provided are more likely to make repeat purchases. Additionally, the level of consumer satisfaction resulting from a positive shopping experience further influences their decision to purchase products or services from the same platform again. These factors are interconnected and form the foundation of consumer buying behavior. By understanding the relationships among these factors, e-commerce companies can design more effective strategies to retain customers and drive increased transactions.

The development of the e-commerce sector has drastically changed the way consumers shop. As more people shift to digital platforms to fulfill their needs, it becomes increasingly important to understand the factors influencing online purchasing decisions. Trust in e-commerce sites, user loyalty to specific platforms, and the level of satisfaction experienced during shopping are crucial factors that significantly influence consumer behavior in the digital world. Consumer trust plays a major role in the decision to purchase products or services. Research indicates that trust is built through several factors, such as transparency of information, transaction security, and the quality of service provided by e-commerce platforms. If a platform implements effective security measures, such as protecting consumers' data and providing clear product information, consumer trust will increase. This, in turn, encourages them to make purchases with greater confidence. Krishnan *et al.* (2024) further explain that sites that successfully build trust tend to have more loyal customers. Consumers who feel comfortable with the security and transparency provided by the platform are more likely to return for future purchases. This trust, in turn, drives repeat purchases and fosters long-term relationships between consumers and the platform. In the highly competitive e-commerce market, maintaining customer loyalty through increased trust is a critical strategic step. To succeed in e-commerce, platforms must continue to focus on building and maintaining customer trust. Safeguarding data security, providing accurate information, and delivering a transparent shopping experience will strengthen relationships with consumers. In this way, consumers will not only feel secure during transactions but will also be more likely to return and recommend the platform to others.

Consumer trust is not only built through security policies or information provided by platforms but also through the interactive experiences offered by e-commerce sites. Interactive methods such as live streaming have been shown to enhance consumer trust. Research conducted by Yudha *et al.* (2022) demonstrates that live shopping sessions provide consumers with the opportunity to view products in real-time and interact directly with sellers. In this way, the transparency of products displayed live enables consumers to gain a clearer understanding of the quality and authenticity of the items they are considering. Moreover, direct interaction between consumers and sellers via live streaming strengthens their relationship. Consumers have the chance to ask the seller questions directly and receive additional information about the products they are interested in. Such communication helps build a stronger sense of trust, as consumers feel more valued and receive more transparent information about the products. Experiences like these reduce the uncertainty typically associated with online shopping, where consumers cannot directly examine the items they wish to purchase. By introducing more transparent and interactive shopping methods, e-commerce platforms not only increase consumer trust in the products being sold but also strengthen long-term relationships with consumers. The trust built through such interactions encourages repeat purchases and makes consumers more likely to recommend the platform to others.

Trust developed through direct interactions is closely linked to customer satisfaction and loyalty. Research by Ellitan and Suhartatik (2023) reveals that the higher the level of satisfaction experienced by consumers, the more likely they are to remain loyal to a specific e-commerce platform. Satisfaction is achieved when consumer expectations regarding products and services are met or even exceeded. A pleasant shopping experience, fast and responsive service, and high-quality products are key factors contributing to this satisfaction. When consumers feel valued and satisfied, they are more likely to return to the same platform for future purchases. Loyalty to an e-commerce platform brings long-term benefits to the company. It not only increases purchase frequency but also enhances the likelihood that consumers will become loyal brand advocates. Customer loyalty reduces the costs of acquiring new customers while increasing the company's customer lifetime value (CLV). By maintaining strong and positive relationships with consumers, e-commerce platforms will be better positioned to compete in an increasingly crowded market. Additionally, social interaction in e-commerce plays a significant role in building trust and influencing purchasing decisions. Studies by Pandowo *et al.* (2024) and Hajli (2014) show that social media can strengthen consumer trust in products. Recommendations from friends or credible influencers often have a significant impact on consumers who have not yet tried the product. Gaurav and Ray (2020) also explain that products that receive positive recognition via social media are more likely to be selected by consumers seeking

guidance before making a purchase. Information from trusted sources provides greater confidence to consumers, which ultimately influences their purchasing decisions.

The ease of use of an e-commerce platform is a key factor influencing consumers' purchasing decisions. Research by Fachrulamry and Hendrayati (2021) indicates that e-commerce applications that are easy to operate can increase consumers' purchase intentions. Platforms with intuitive, responsive, and fast interfaces create a much more enjoyable shopping experience, which in turn encourages consumers to return and make additional purchases. With simple navigation and easy access, consumers can quickly find the desired products and complete transactions without obstacles. Sutisna and Sutrisna (2023) also emphasize the importance of a smooth user experience in facilitating shopping. According to them, efficient and non-confusing platforms make it easier for consumers to complete transactions quickly and without stress. A complicated checkout process or slow application can become a barrier that disrupts the shopping experience and harms user satisfaction. On the other hand, applications designed to minimize the time and effort needed to complete transactions result in higher satisfaction, encouraging consumers to return for further shopping. A fast and efficient shopping experience not only increases the likelihood of repeat purchases but also enhances customer loyalty to the e-commerce platform. Consumers who are satisfied with the convenience and comfort of shopping are more likely to recommend the platform to others. Therefore, optimizing the user experience by ensuring that the application operates quickly and smoothly is a critical step for e-commerce platforms that aim to retain and attract customers.

Building and maintaining consumer trust in e-commerce is crucial for enhancing customer satisfaction and loyalty. A positive relationship between consumers and platforms is established through transparency, enjoyable interactions, and an efficient user experience. All of these factors increase the likelihood of repeat purchases. Additionally, the influence of social media and the ease of use of platforms further strengthen the appeal of e-commerce to consumers. Each of these factors is interconnected and influences digital consumer purchasing behaviour, indicating that effective management of these elements is vital for long-term success in the e-commerce business.

2 | THEORITICAL REVIEW

E-commerce continues to grow rapidly, causing significant changes in the way consumers shop. Several key factors influence digital consumer purchase decisions, including trust in platforms, consumer loyalty to specific sites, and satisfaction derived from the shopping experience. Understanding the relationship between these factors can help e-commerce platforms develop more effective strategies.

1) Trust in E-Commerce

Trust in e-commerce plays a critical role in shaping the relationship between consumers and service providers. In the fast-evolving digital world, consumers often rely on online platforms that lack direct physical interaction. Therefore, trust becomes a key factor influencing both purchase decisions and consumer loyalty to a platform. Research by Yasin *et al.* (2021) indicates that the quality of information and security measures offered by service providers are vital in building consumer trust. When consumers perceive the information as accurate, transparent, and easily understandable, and their transactions are secure, their trust in the platform increases. This trust, cultivated through positive experiences, not only enhances the likelihood of consumers shopping but also strengthens their loyalty to the platform. For example, Rafiah (2019) points out that safe and transparent shopping experiences directly reinforce consumer loyalty. Consumers who feel secure and valued are more likely to return to the same platform for future purchases, resulting in repeat business, which is crucial for the sustainability of e-commerce. Additionally, research by Ramdani *et al.* (2023) shows that customer satisfaction, closely linked to trust, plays a key role in encouraging repeat purchases on e-commerce platforms. Well-maintained trust boosts customer satisfaction, which in turn encourages repeat shopping. Thus, trust in e-commerce not only affects the initial purchase decision but also plays a crucial role in maintaining loyalty and prompting continued shopping.

2) Site Loyalty in E-Commerce

Site loyalty in e-commerce typically begins with consumer satisfaction with the services provided by the platform. Research by Wisnel *et al.* (2022) shows that high service quality greatly influences customer satisfaction, which in turn fosters stronger loyalty. Loyalty is not only measured by how frequently consumers make purchases but also by how much they recommend the site to others, a phenomenon known as e-loyalty. This indicates that loyalty can manifest as consumer recommendations, helping expand the platform's reach. Pertiwi *et al.* (2022) also found that satisfaction derived from adequate service positively impacts customer loyalty. Consumers who are satisfied with their shopping experience tend to be more loyal to platforms that provide quality service. Satisfaction can stem from various aspects, such as ease of shopping, shipping speed, product quality, and excellent after-sales service. Building a strong relationship between consumers and e-commerce platforms is crucial for retaining and growing the customer base. In a competitive environment, continuously providing a satisfying shopping experience is key. Consumer loyalty focuses not only on one-time purchases but also on creating positive experiences that encourage consumers to return. Good service and consistent customer satisfaction will help e-commerce platforms retain

customers and attract new ones through recommendations from loyal consumers.

3) Customer Satisfaction in E-Commerce

Customer satisfaction in e-commerce significantly affects repeat purchasing behavior and loyalty. Experiences that meet consumer expectations, such as easy navigation and high product quality, play an important role in enhancing satisfaction. Pranasari and Sidqi (2021) explain that when consumers are satisfied with their shopping experience, they are more likely to return to the same platform. Factors like user-friendly interfaces and accurate product descriptions are key to creating a satisfying shopping experience. Additionally, consumers' perceptions of security and the quality of the application system also heavily influence satisfaction levels. Tanaya *et al.* (2023) indicate that secure and easy-to-use systems provide comfort during shopping. Transaction security is a highly emphasized aspect, as many consumers worry about their personal data and payment information. If consumers feel that an e-commerce platform protects their data well, they are more likely to be satisfied with the service. Purwati *et al.* (2022) also found that when consumers feel valued and satisfied with their shopping experience, they are more likely to make repeat purchases and overlook other available market options. This satisfaction not only encourages further purchases but also builds loyalty to the platform. Satisfied consumers will continue to return, which is vital for maintaining long-term relationships with customers. Well-maintained satisfaction can generate greater profits for e-commerce platforms, as loyal consumers tend to shop more frequently and seek fewer alternatives.

4) The Influence of Social Media on Trust and Loyalty

Social media plays an increasingly important role in building trust and consumer loyalty to a brand. Research by Isnanto and Saputro (2024) reveals that interactions on social media, including recommendations from friends or influencers, can enhance consumer trust and loyalty toward a brand. Recommendations from friends or influencers are considered more credible because consumers tend to trust information from sources they consider credible and relevant. Additionally, social media provides a more direct and transparent communication channel between brands and consumers. Through platforms like Instagram, Facebook, and Twitter, companies can provide clearer and more accessible information to consumers. Information conveyed through social media is often perceived as more authentic, especially if it comes from trusted sources like influencers or customers with direct product experience. Maranto *et al.* (2024) explain that open and accessible communication on social media increases consumer trust in a brand. The use of social media in marketing strategies is becoming more important to attract new consumers and retain existing customers. Social media allows companies to remain in contact with consumers, respond quickly to inquiries or issues, and create more personal connections. This helps build stronger trust, which in turn supports consumer loyalty to the brand. With more interactive and responsive experiences, consumers feel more valued and are more likely to remain loyal to the e-commerce platform or brand.

Trust, loyalty, and customer satisfaction are interconnected and strongly influence digital consumer purchasing behavior. E-commerce platforms that can build trust through security and transparency, maintain loyalty by providing consistent shopping experiences, and enhance satisfaction by meeting customer expectations will be more successful in attracting and retaining consumers. Additionally, social media further strengthens these factors by boosting trust and expanding loyalty toward platforms. Long-term success in e-commerce heavily relies on how effectively these factors are managed.

3 | METHOD

This study aims to analyze the impact of e-commerce trust, site loyalty, and customer satisfaction on consumer purchasing behavior in digital platforms. The researcher developed a model to test the relationships between these three factors trust, loyalty, and satisfaction on consumer purchase decisions in e-commerce. Furthermore, the model explores how these factors interact with each other in influencing purchasing decisions. A systematic sampling technique was used for the sample selection, where respondents were chosen based on specific criteria. Respondents were considered eligible if they had made at least three purchases through an e-commerce platform in the past three months. Additionally, respondents were required to have interacted with the platform, such as leaving reviews or providing feedback on purchased products. This criterion ensures that the collected data is sourced from consumers with actual e-commerce shopping experience, providing a more accurate depiction of purchasing behavior on these platforms.

The findings of this research are expected to offer a clearer understanding of the factors influencing consumer purchase decisions in e-commerce, as well as how the interrelationships among these factors affect consumer behavior. The researcher employed a structured questionnaire to collect data on the three main variables: trust, loyalty, and satisfaction, and to understand their influence on consumer purchasing behavior. Each variable was measured using a five-point Likert scale, where 1 represented "strongly disagree" and 5 represented "strongly agree." This scale was designed to allow respondents to provide clear and understandable evaluations. El Hafiz *et al.* (2021) designed the questionnaire specifically to ensure that respondents met the previously established criteria, ensuring the collected data is relevant and accurately reflects the actual conditions.

Trust was measured through questions focused on respondents' perceptions of the reliability and security of e-commerce sites. Loyalty was assessed based on the tendency of respondents to continue shopping on the same platform, while satisfaction was measured by how satisfied respondents were with their shopping experience. Table 1 provides a detailed explanation of the variables studied and the items used to measure each variable. The researcher aims to ensure that these precise and structured measurements offer a clear depiction of the relationships between these three factors and how they influence consumer purchasing behavior on e-commerce platforms.

Table 1. Questionnaire Measurement and Items

Construct	Code	Questionnaire Item
E-Commerce Trust	EC.1	I feel safe making transactions on this e-commerce platform.
E-Commerce Trust	EC.2	This e-commerce platform provides transparent product information.
Site Loyalty	SL.1	I shop more frequently on this e-commerce platform compared to others.
Site Loyalty	SL.2	I feel loyal to shopping on this site.
Customer Satisfaction	CS.1	I am satisfied with my shopping experience on this e-commerce platform.
Customer Satisfaction	CS.2	The service provided by this e-commerce platform meets my expectations.
Purchase Behavior	PB.1	I more frequently buy products from this e-commerce platform.
Purchase Behavior	PB.2	I prefer to make repeat purchases on this e-commerce platform.
Social Media Influence	SM.1	Product recommendations from social media influence my purchase decisions.

Data were gathered through an online questionnaire distributed to respondents who met specific criteria. The questionnaire focused on respondents' experiences when shopping on e-commerce platforms. During the two-week data collection period, clear instructions were provided on how to fill out the questionnaire. Participants were assured that their involvement was voluntary and anonymous, and their information would be kept confidential. Only valid and complete responses were selected for further analysis. This approach ensured that the data reflected genuine consumer experiences with online purchasing behavior.

The analysis was carried out using statistical software such as SPSS and AMOS. Several techniques were applied, including descriptive analysis, validity and reliability testing, and multiple linear regression. Descriptive analysis was first employed to describe respondent characteristics and the distribution of values for each variable. According to Purwanto *et al.* (2021), this method provided insights into measures like mean and median, as well as data dispersion such as standard deviation and range. This step gave an initial understanding of the patterns within the data.

Next, validity and reliability tests were conducted to confirm the trustworthiness and accuracy of the instruments used. The validity test ensured the instruments measured what they were intended to measure, while reliability testing checked for consistency in results over time. Multiple linear regression was used to examine the relationships between e-commerce trust, site loyalty, customer satisfaction, and their influence on consumer behavior. This technique helped determine the impact of each variable on purchasing decisions. Finally, hypothesis testing with t-tests and F-tests was performed to assess whether the relationships between the variables were statistically significant. The t-test was used to examine the relationship between two variables, while the F-test analyzed the relationships among several variables at once. These tests allowed the study to identify factors influencing consumer purchasing decisions on e-commerce platforms.

Structural Equation Modeling (SEM) was applied to analyze the data using SMART PLS 3.3.0 software. SEM allowed the researcher to evaluate relationships between latent variables and test hypotheses simultaneously, especially useful for handling complex relationships between variables (Lubis *et al.*, 2019). The SEM process includes two primary stages: the Outer Model and the Inner Model. The Outer Model measures the validity and reliability of constructs derived from questionnaire indicators. Validity ensures that the indicators reflect the intended construct, and reliability confirms that measurements are consistent. In this stage, the researcher checked if the indicators were reliable and aligned with theoretical expectations. The Inner Model assessed the relationships between latent variables and analyzed the influence of independent variables on dependent variables. The Inner Model showed how much each variable contributed to the outcomes. SEM provided a clear understanding of how interconnected variables relate to each other, leading to more precise conclusions.

To test the reliability and validity of the instruments, Composite Reliability and Cronbach's Alpha tests were used. An instrument is considered reliable if the composite reliability and Cronbach's Alpha exceed 0.700. Construct validity was checked using Convergent Validity and Discriminant Validity, ensuring the indicators were dependable for measuring the constructs they represented (Situmorang & Purba, 2019).

By applying these methods, the research offers valuable insights into how e-commerce trust, site loyalty, and customer satisfaction affect consumer behavior. The findings will assist platform managers in designing more effective strategies to boost trust, satisfaction, and loyalty, as well as improve purchase rates.

4 | RESULTS AND DISCUSSION

4.1 Results

The aim of this study was to explore how e-commerce trust, site loyalty, and customer satisfaction affect consumer purchasing behavior on digital platforms. Data were gathered from 300 respondents who met the set criteria and analyzed using SPSS and AMOS, employing a Structural Equation Modeling (SEM) approach. The findings show that e-commerce trust has the strongest impact on consumer purchasing decisions. Respondents who expressed higher trust in the platform tended to make purchases more frequently. Site loyalty also significantly influenced buying behavior, with loyal consumers more likely to return to the same platform for future purchases. Furthermore, customer satisfaction played a vital role, with satisfied shoppers more inclined to engage in repeat transactions. These results emphasize the importance of trust, loyalty, and satisfaction as key drivers of consumer behavior in online shopping environments.

4.1.1 Respondent Characteristics

The majority of respondents were active consumers who had made more than three purchases on e-commerce platforms in the last three months. The distribution of respondents based on gender, age, and purchase frequency is shown in Table 3. A significant proportion of respondents had substantial shopping experience on e-commerce platforms, which strengthens the reliability of the analysis and allows for a more representative understanding of consumer behavior. The diverse demographics, including various age groups and both male and female consumers, provide a well-rounded perspective on how different consumer segments interact with online shopping platforms. This distribution ensures that the findings reflect a broad range of behaviors, making the results more applicable to the general consumer population.

Table 2. Respondent Characteristics

Characteristic	Frequency	Percentage (%)
Gender	Male	120
Gender	Female	180
Age	18-24 years	80
Age	25-34 years	140
Age	35-44 years	50
Age	45 years and above	30
Purchase Frequency	3-5 times	200
Purchase Frequency	6-10 times	100

The table shows the distribution of respondents by gender, age, and purchase frequency. Of the 300 respondents, 40% were male, and 60% were female. In terms of age, 46.7% were between 25-34 years old, 26.7% were aged 18-24, 16.7% were between 35-44 years, and 10% were 45 or older. Regarding purchase frequency, 66.7% of respondents made between 3 to 5 purchases in the last three months, while 33.3% made between 6 to 10 purchases. These figures provide a clear picture of the varied demographics and shopping behaviors of the participants.

4.1.2 Validity and Reliability Testing

Validity and reliability tests were performed to confirm the dependability of the measurement instruments. All indicators used to assess e-commerce trust, site loyalty, and customer satisfaction passed the convergent validity criteria. The Average Variance Extracted (AVE) for each construct exceeded 0.5, indicating strong validity. The reliability tests, including Cronbach's Alpha and Composite Reliability, showed values above 0.7, demonstrating that the instruments were consistent and trustworthy. These results confirm that the tools used in this study effectively measured the intended variables, ensuring the data's accuracy and consistency. With solid validity and reliability, the findings can be considered robust and dependable for understanding the relationships between the key factors under investigation.

Table 3. Validity and Reliability Testing

Construct	Composite Reliability (CR)	Cronbach Alpha (CA)	Average Variance Extracted (AVE)
E-Commerce Trust	0.861	0.821	0.728
Site Loyalty	0.876	0.833	0.745
Customer Satisfaction	0.884	0.841	0.755
Purchase Behavior	0.854	0.801	0.738

The table shows the validity and reliability results for the constructs used in the study. E-commerce trust, site loyalty, customer satisfaction, and purchase behavior all demonstrated strong reliability and validity. Composite Reliability (CR) values ranged from 0.854 to 0.884, and Cronbach's Alpha (CA) values ranged from 0.801 to 0.841, indicating high

consistency. Average Variance Extracted (AVE) values for all constructs were above 0.7, confirming their validity. These findings confirm that the measurement tools effectively measured the intended variables and provide assurance of the data's reliability and accuracy.

4.1.3 Multiple Linear Regression Analysis

The multiple linear regression analysis revealed significant relationships between e-commerce trust, site loyalty, customer satisfaction, and consumer purchasing behavior.

- 1) E-commerce trust showed the strongest influence with a regression coefficient of 0.45 (p-value = 0.000), indicating that consumers who have a high level of trust in an e-commerce platform are more likely to make frequent purchases. Trust plays a critical role in shaping consumer confidence, encouraging them to engage in repeated transactions.
- 2) Customer satisfaction also had a notable effect, with a regression coefficient of 0.36 (p-value = 0.000). This suggests that satisfied customers are more likely to return to the same platform for future purchases, underscoring the importance of providing a positive shopping experience that meets consumer expectations.
- 3) Site loyalty was another significant factor with a coefficient of 0.30 (p-value = 0.002), though its impact was somewhat smaller than trust and satisfaction. This finding indicates that loyal customers are more likely to continue making purchases, reinforcing the value of fostering long-term relationships with consumers.

Table 4. Results of Multiple Linear Regression Analysis

Independent Variable	Regression Coefficient	P-value	Impact on Purchasing Behavior
E-Commerce Trust	0.45	0.000	Significant
Site Loyalty	0.30	0.002	Significant
Customer Satisfaction	0.36	0.000	Significant

The table displays the results of the multiple linear regression analysis. E-commerce trust had the strongest effect on consumer purchasing behavior, with a regression coefficient of 0.45 and a p-value of 0.000, confirming its significance. Customer satisfaction also significantly influenced purchasing decisions, with a coefficient of 0.36 and a p-value of 0.000. Site loyalty had a smaller impact, with a regression coefficient of 0.30 and a p-value of 0.002, but it still showed a significant relationship with consumer behavior. These results emphasize the importance of trust, satisfaction, and loyalty in driving purchasing behavior.

4.1.4 The Influence of Social Media on Trust and Loyalty

Social media has been shown to have a significant impact on shaping consumer trust and loyalty. Product recommendations on social media, especially those from friends or influencers, have a positive effect on purchasing decisions.

- 1) Consumer trust is influenced by social media recommendations, with a regression coefficient of 0.32 (p-value = 0.000). This indicates that consumers are more likely to trust products recommended by sources they consider credible.
- 2) Site loyalty is also affected by experiences shared through social media, with a regression coefficient of 0.28 (p-value = 0.001). This suggests that consumer interactions on social media strengthen their connection to e-commerce platforms.

Table 5. The Influence of Social Media on Trust and Loyalty

Variable	Regression Coefficient	P-value	Impact on Trust and Loyalty
Social Media - Trust	0.32	0.000	Significant
Social Media - Loyalty	0.28	0.001	Significant

The table demonstrates that social media has a significant impact on both consumer trust and loyalty. The regression coefficient for social media's influence on trust is 0.32 with a p-value of 0.000, showing a strong and significant effect. Similarly, the impact of social media on loyalty has a coefficient of 0.28 and a p-value of 0.001, indicating a significant relationship. These results highlight the importance of social media in shaping consumer trust and loyalty towards platforms.

4.1.5 Model Fit Testing Results

In this study, Structural Equation Modeling (SEM) was used to assess the relationships between latent variables and determine how well the proposed model fits the data. SEM enables testing multiple hypotheses simultaneously and provides a clearer picture of how variables are interconnected. Prior to analyzing the relationships, a model fit test was performed to ensure the accuracy of the model in representing the data.

The outer model evaluates the validity and reliability of the indicators used to measure each construct. The results

confirmed that all constructs had valid and reliable indicators. The loading factors for indicators related to e-commerce trust, site loyalty, customer satisfaction, and purchase behavior all exceeded 0.7, indicating that the indicators were effective in measuring the intended constructs.

Table 6. Overall Model Fit Results

Construct	Indicator	Loading Factor
E-Commerce Trust	EC.1	0.82
E-Commerce Trust	EC.2	0.85
Site Loyalty	SL.1	0.88
Site Loyalty	SL.2	0.81
Customer Satisfaction	CS.1	0.84
Customer Satisfaction	CS.2	0.87
Purchase Behavior	PB.1	0.79
Purchase Behavior	PB.2	0.83

The table presents the loading factors for the indicators used to measure each construct. All indicators demonstrated strong loadings, indicating effective measurement of the intended constructs. For e-commerce trust, indicators EC.1 and EC.2 had loading factors of 0.82 and 0.85, respectively. Site loyalty was measured with SL.1 and SL.2, which showed loading factors of 0.88 and 0.81. Customer satisfaction indicators, CS.1 and CS.2, had loadings of 0.84 and 0.87. Lastly, purchase behavior was measured using PB.1 and PB.2, with loading factors of 0.79 and 0.83. These results confirm the reliability and validity of the model.

The inner model examines the relationships between latent variables, which represent how trust, loyalty, and satisfaction influence consumer purchasing behavior. This model helps to understand the direct and indirect impacts that these variables have on consumer actions in the e-commerce environment. To evaluate the accuracy and reliability of the model, R-squared (R^2) values were calculated. R^2 indicates the proportion of variance in the dependent variables that is explained by the independent variables in the model, providing insight into how well the model fits the data.

- 1) The R^2 for purchase behavior was 0.72, meaning the model can explain 72% of the variation in consumer purchase behavior. This result suggests that trust, loyalty, and satisfaction are strong predictors of purchasing decisions, and these factors account for a significant portion of why consumers decide to make purchases on e-commerce platforms.
- 2) For loyalty, the R^2 value was 0.68, showing that the model explains 68% of the variation in consumer loyalty to the platform. Loyalty is influenced by various factors such as customer satisfaction and trust, and the model effectively captures the relationship between these factors.
- 3) The R^2 for customer satisfaction was 0.74, indicating that the model explains 74% of the variation in consumer satisfaction. This suggests that the factors of trust and loyalty have a strong impact on how satisfied consumers are with their shopping experience.

The high R^2 values in each case demonstrate that the inner model provides a reliable representation of the relationships between the latent variables and explains a large proportion of the variance in each dependent variable. This validates the model's effectiveness in capturing key factors influencing consumer behavior in the e-commerce sector.

Table 7. R-Squared (R^2) Results for the Inner Model

Dependent Variable	R^2
Purchase Behavior	0.72
Loyalty	0.68
Customer Satisfaction	0.74

The table shows the R-squared (R^2) values for the inner model, which indicate how well the independent variables explain the dependent variables. The R^2 for purchase behavior is 0.72, meaning the model explains 72% of the variation in consumer purchase behavior. For loyalty, the R^2 value is 0.68, explaining 68% of the variation in consumer loyalty. The R^2 for customer satisfaction is 0.74, meaning the model explains 74% of the variation in satisfaction. These results highlight the model's effectiveness in capturing key factors influencing consumer behavior.

To assess the overall fit of the model, a Goodness of Fit test was conducted. The results indicate that the proposed model meets the required fit criteria, ensuring that the model accurately represents the data. Several key indicators were used to evaluate how well the model fits the data. The Chi-square / df ratio was 2.67, which is below the threshold of 5, indicating a good fit. The Root Mean Square Error of Approximation (RMSEA) value of 0.06 is also below the acceptable level of 0.08, confirming that the model approximates the data well. The Comparative Fit Index (CFI) was 0.92, and the Tucker-Lewis Index (TLI) was 0.91, both exceeding the recommended value of 0.90, which further supports the model's strong fit.

Table 8. Overall Model Fit Testing Results

Model Fit Indicator	Value	Fit Criteria
Chi-square / df	2.67	< 5
RMSEA	0.06	< 0.08
CFI	0.92	> 0.90
TLI	0.91	> 0.90

The high R-squared values and the strong goodness-of-fit indicators confirm that the model meets the necessary fit criteria. All constructs demonstrated valid and reliable indicators, and the relationships between the latent variables were clearly explained. This confirms that the model is suitable for analyzing the relationships between trust, loyalty, satisfaction, and consumer purchasing behavior.

4.1.6 Hypothesis Testing

T-tests and F-tests were performed to assess the significance of the relationships between the variables in the model. The t-test results showed that e-commerce trust ($t = 9.64$, $p = 0.000$), site loyalty ($t = 3.34$, $p = 0.002$), and customer satisfaction ($t = 5.12$, $p = 0.000$) all significantly influence purchasing behavior. The F-test confirmed that the overall model is significant, with an F value of 21.34 ($p < 0.01$), indicating that the relationships among these variables are significant. The results indicate that e-commerce trust, site loyalty, and customer satisfaction are key drivers of consumer purchasing behavior on digital platforms. E-commerce trust has the largest impact on purchase decisions, followed by customer satisfaction and site loyalty. This finding suggests that building consumer trust should be a primary focus for e-commerce platforms. Social media also plays a significant role in strengthening trust and boosting customer loyalty, as recommendations from trusted sources such as friends or influencers positively influence purchasing decisions. These findings offer valuable guidance for e-commerce managers. To improve user experience and drive repeat purchases, it is crucial to focus on building trust, enhancing satisfaction, and fostering loyalty. Additionally, leveraging social media to engage with consumers can strengthen relationships and improve overall sales performance.

4.2 Discussion

This study aimed to understand the impact of e-commerce trust, site loyalty, and customer satisfaction on consumer purchasing behavior on digital platforms. Data were collected from 300 respondents who met specific criteria, and the analysis was conducted using SPSS and AMOS with a Structural Equation Modeling (SEM) approach. The results provide clear insights into how these factors influence consumer behavior. The majority of respondents were active consumers who made more than three purchases on e-commerce platforms in the last three months. This distribution of respondents across various demographics, including gender, age, and purchase frequency, ensures the analysis represents diverse consumer behaviors. These findings align with previous studies, where experience and frequency of online purchases were significant indicators of e-commerce behavior (Krishnan *et al.*, 2024).

The validity and reliability tests confirmed that the instruments used in this study were both valid and reliable. All constructs, including e-commerce trust, site loyalty, and customer satisfaction, met the criteria for convergent validity. The Average Variance Extracted (AVE) values for all constructs exceeded 0.5, indicating good validity (Ellitan & Suhartatik, 2023). Furthermore, both Cronbach's Alpha and Composite Reliability values were above 0.7, confirming the instruments' reliability, consistent with the standards suggested in prior research (Yasin *et al.*, 2021). The multiple linear regression analysis revealed significant relationships between e-commerce trust, site loyalty, customer satisfaction, and consumer purchasing behavior. Trust had the most substantial effect with a regression coefficient of 0.45 (p -value = 0.000), suggesting that consumers with high trust in e-commerce platforms are more likely to make frequent purchases, as also found in the studies by Krishnan *et al.* (2024) and Yudha *et al.* (2022). Customer satisfaction had a significant effect with a coefficient of 0.36 (p -value = 0.000), highlighting that satisfied consumers are more inclined to return to the platform, a finding consistent with studies on the role of e-service quality in fostering satisfaction and loyalty (Wisnel *et al.*, 2022). Loyalty, although impactful, had a slightly smaller effect (0.30, p -value = 0.002), which aligns with findings that site loyalty is a positive, albeit secondary, determinant of purchase behavior (Fachrulamry & Hendrayati, 2021).

Social media was found to have a significant influence on both trust and loyalty. Social media recommendations, especially from credible sources like friends or influencers, had a strong positive impact on consumer trust (Pandowo *et al.*, 2024). This finding aligns with the research by Hajli (2014), which emphasizes the growing influence of social media on consumer decision-making. Similarly, loyalty was also positively impacted by social media interactions, with a regression coefficient of 0.28 (p -value = 0.001). The positive role of social media in building loyalty supports findings from Gaurav & Ray (2020), who noted that social media advertising strengthens consumer-brand relationships. SEM analysis provided a robust framework for understanding the relationships among the latent variables. The outer model fit showed that all constructs were valid and reliable, with loading factors exceeding 0.7 for each indicator. This result supports the validity of the constructs, confirming their ability to accurately measure the intended variables (Purwati *et al.*, 2022). The

inner model fit, based on R-squared values, revealed that the model explained 72% of the variation in purchase behavior, 68% in loyalty, and 74% in customer satisfaction, suggesting strong explanatory power (Yasin *et al.*, 2021). The goodness-of-fit indices further confirmed the model's adequacy. The Chi-square/df ratio of 2.67 (below 5), RMSEA value of 0.06 (below 0.08), CFI of 0.92, and TLI of 0.91 all indicate a good fit, aligning with the criteria for model adequacy commonly used in SEM studies (Situmorang & Purba, 2019).

The hypothesis tests, including t-tests and F-tests, confirmed the significant influence of e-commerce trust, site loyalty, and customer satisfaction on consumer purchasing behavior. The t-values for trust ($t = 9.64$, $p = 0.000$), loyalty ($t = 3.34$, $p = 0.002$), and satisfaction ($t = 5.12$, $p = 0.000$) were all highly significant, supporting the hypothesis that these factors drive consumer purchasing decisions. The F-test result ($F = 21.34$, $p < 0.01$) also confirmed the overall significance of the model, supporting the idea that the tested relationships have a meaningful impact on consumer behavior (Lubis *et al.*, 2019). The findings of this study provide essential insights for e-commerce platform managers. To enhance consumer purchasing behavior, platforms should focus on building trust, improving satisfaction, and fostering loyalty. Trust remains the most critical factor influencing purchasing decisions, followed by satisfaction and loyalty. Platforms should prioritize creating a secure and transparent environment to build consumer trust, as suggested by Krishnan *et al.* (2024) and Rafiah (2019). Moreover, the role of social media in influencing both trust and loyalty highlights the importance of leveraging social media engagement to strengthen consumer relationships with the platform (Pandowo *et al.*, 2024). These insights can help e-commerce platforms design effective strategies to improve customer experience and drive repeat purchases.

5 | CONCLUSIONS

The study reveals that trust in e-commerce platforms, user loyalty, and customer satisfaction significantly impact consumer purchasing behavior. Trust, built on secure transactions, transparent information, and product quality assurance, plays a vital role in driving purchasing decisions. Consumers who feel secure and confident in the platform are more likely to make repeat purchases, boosting loyalty. Customer satisfaction is also crucial. A positive shopping experience, including product quality, responsive customer service, and user-friendly platform navigation, increases the likelihood of returning customers. This satisfaction strengthens loyalty and encourages customers to recommend the platform to others, expanding the customer base. Social media also plays a significant role in building trust and loyalty. Recommendations from trusted sources like friends, influencers, or other users greatly influence purchasing decisions. This underscores the importance of leveraging social media to build stronger consumer relationships and enhance the platform's trusted brand image. The findings offer valuable insights for e-commerce managers to craft strategies focused on retaining customers and driving repeat purchases. Fostering trust, improving customer experience, and utilizing social media for communication and promotion are key to strengthening long-term relationships and achieving success in a highly competitive market.

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