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THE INFLUENCE OF E-WOM AND TRUST ON DIGITAL PRODUCT PURCHASE DECISIONS: THE MODERATING ROLE OF INTERNET ACCESSIBILITY

M.J. Muljadi[1], K. Kurniadi[2*]

[1,2] Department of Entrepreneurship, Binus Business School Undergraduate Program, Bina Nusantara University, Jakarta, Indonesia
[1] Email: Matthew.muljadi@binus.ac.id, ORCID: 0009-0003-4141-7291
[2] Email: kurniadi003@binus.ac.id, ORCID: 0000-0003-2047-9795
*Corresponding Author: kurniadi003@binus.ac.id, ORCID: 0000-0003-2047-9795

Abstract
As the digital economy in Indonesia continues to grow, understanding consumer behaviour is essential for the success of e-startups. This study concentrates on examining how electronic word-of-mouth (E-WOM) and trust influence purchase decisions for digital products. We further investigate the role of internet accessibility as a moderator in these relationships. We surveyed 200 active digital consumers across Indonesia using a purposive sampling approach and analysed the data using Partial Least Squares Structural Equation Modelling (PLS-SEM) with SmartPLS 4.0.

Our findings show that E-WOM has a significant positive effect on purchase decisions ($\beta = 0.324$, $p < 0.001$) and trust also has a significant positive effect ($\beta = 0.415$, $p < 0.001$). Internet accessibility was found to moderate the relationship between both E-WOM and trust on purchase decisions. The research model explains 52.4% of the total variance in purchase decisions ($R2 = 0.524$ which suggest that e-startups should consider regional digital infrastructure when designing marketing strategies. This study contributes to consumer behaviours models by underscoring the significance of internet accessibility in the digital marketplace.

KEYWORDS: Purchase decision, E-WOM, trust, internet accessibility, digital product

INTRODUCTION

Background of digital transformation

As the online service industry continues to grow, new e-startups have emerged to provide a wide range of digital products (Novita and Santoso, 2021). This shift has revolutionized consumer behaviors by enabling instant access to product information, reviews, and competitive pricing. Digital products such as software, streaming services, and e-books are different from physical goods because they are intangible and easy to replicate (Babić Rosario et al., 2016; Micken et al., 2020; Sesandi et al., 2024). Because consumers cannot physically test these products and visualize them before buying, consumers often face uncertainty when making up their minds to buy digital products.

Indonesia digital transformation is moving at an incredibly fast pace (Gaffar et al., 2022). and because of that, the nation's digital economy is expected to become one of the largest in Southeast Asia in upcoming years (Yu, 2024; Budiherwanto, 2025). The Ministry of Communication and Informatics has given out information that internet penetration in Indonesia has reached 79.5% in 2024 (APJII, 2024). While this growth might create a new economic opportunity, it is also possible for making consumer behavior in the digital space more difficult to understand (Rijali, 2025). For Indonesian e-startups with limited resources, identifying the factors that drive purchase decisions is essential for business survival (Pavlou, 2003; Queen et al., 2024).

Research urgency

From previous studies we learned electronic word of mouth (E-WOM) and trust as two important factors in digital purchase decisions. E-WOM acts as a quality signal that helps reduce the uncertainty of buying digital products (Albayrak and Ceylan, 2021; Babić Rosario et al., 2016; Khan et al., 2023). When consumers cannot evaluate a product directly, they rely on reviews and recommendations from other users. On the other hand, Trust is also a foundation for online transactions where risk and uncertainty are involved (Davis, 1989; Yurder, 2025). Without trust, consumers are often reluctant to buy intangible digital products. At the same time, meta-analysis shows that E-WOM greatly affects purchase intention (Sardar et al., 2021; Van Noi and My, 2024), and trust is important for e-commerce engagement (Blut et al., 2023; Scherer et al., 2019). However, many of these studies only focus on physical products or countries with developed digital infrastructure. Research specifically examining these factors for digital products in developing countries like Indonesia is still very limited. Furthermore, we also put internet accessibility as a moderator because the distribution of internet access is still a major issue in Indonesia (Lythreatis et al., 2022; Vassilakopoulou and Hustad, 2023). The quality of internet access can change how different factors

influence online purchase decisions (Beaunoyer et al., 2020). While some research suggests that internet accessibility moderates shopping intentions (Muljono et al., 2025), there is little research on its role for digital products within e-startups which is why understanding how internet accessibility might affect the relationship between E-WOM, trust, and purchase decisions is important for e-startups to develop effective marketing strategies.

Gap analysis

Lack of studies that studies electronic word-of-mouth (E-WOM), trust, and internet accessibility as an integrated model for digital products has motivated this research. Most previous work focuses on these factors separately or in the context of physical goods. Although internet accessibility is known to be a moderator, its role regarding intangible products is not yet well understood, and since digital products cannot be physically tested, consumer decisions depend heavily on digital information. On top of that, many research only focus on other countries besides Indonesia despite the country's significant digital economic potential and infrastructure challenges. In addition, prior research often uses limited analytical methods for testing moderation, whereas our study uses the partial least squares structural equation modeling (PLS-SEM) approach to provide a more detailed analysis of these complex relationships.

Research objectives

Looking at the background and the identified research gaps, the research questions addressed in this study are as follows:

1. Does electronic word of mouth (E-WOM) influence purchase decisions for digital products in Indonesian e-startups?
2. Does trust influence digital product purchase decisions in Indonesian e-startups?
3. Does internet accessibility moderate the effects of E-WOM and trust on digital product purchase decisions in Indonesian e-startups?

In concern with the research questions above, the objectives of this study are as follows:

1. To Examine the impact of E-WOM on digital product purchase decisions in Indonesian e-startups.
2. To Analyze the effect of trust on consumer purchasing behavior in Indonesian e-startups.
3. To Evaluate the moderating role of internet accessibility in the relationship between E-WOM, trust, and purchase decisions in Indonesian e-startups.

LITERATURE REVIEW

Electronic word of mouth (E-WOM)

Informal conversations between consumers about product characteristics or service providers on digital platforms are called electronic word of mouth (E-WOM). This includes a variety of forms, such as comments on social media, online reviews, and discussions on forums. E-WOM works well because it can reach a lot of people and is available online for a long time.

Technology has made it easier for people to share their thoughts. E-WOM is different from regular word of mouth because it can reach thousands of people in a matter of seconds. It is also persistent because the information is saved and can be accessed again in the future. When people can give feedback without worrying about what others will think, they are more likely to be honest. E-WOM also uses text, images, and videos to get its point across.

Babić Rosario et al. (2016) reviewed 96 studies and found that E-WOM usually leads to more sales, but the effect depends on the platform and product category. Their results show that EWOM works better for digital products than for search goods. Further research demonstrates that EWOM substantially impacts the purchasing decision (Albayrak and Ceylan, 2021).

E-WOM is a quality signal for digital products that makes people feel less risky about buying them. People trust social proof to make sure these products are good because they cannot be tested before they buy them. How credible and well-written a story is are two important things that affect how people see it. Recent research indicates that electronic word-of-mouth (E-WOM) links digital marketing strategies to the ultimate purchasing decision (Hidayat et al., 2024; Patel et al., 2023). The number and kind of reviews both have an effect on these results.

Trust

The belief that a provider is reliable and will fulfill its obligations is called trust (Gefen et al., 2003). In digital markets, trust is crucial because buyers face high levels of risk and uncertainty as digital products cannot be physically examined before purchase. Trust in e-commerce typically consists of three dimensions: ability, benevolence, and integrity (Gefen et al., 2003). However, a study of 1,200 respondents in four Asian countries found that the importance of trust varies depending on local cultural values (Wang et al., 2022) which indicate cultural factors also influence the relationship between trust and purchase intention. Other research indicates that factors like platform credibility and security build customer loyalty through trust mechanisms (Gupta et al., 2023). Additionally, trust is also a major driver for mobile commerce adoption in developing nations (Anwar et al., 2021). For new e-startups, building trust is a significant challenge because they lack established reputations. Since these

companies have a limited track record and low brand recognition, consumers are often more cautious during transactions than when dealing with well-known brands.

Internet accessibility as a moderating variable

Internet accessibility is about how easily consumers can connect to the internet, including factors such as infrastructure, connection quality, and cost (Muljono et al., 2025). In developing countries like Indonesia, obtaining internet access is still a big problem which involves more than just physical access but also includes digital literacy, skills, and the ability to use technology effectively for various activities (Lythreatis et al., 2022; Vassilakopoulou and Hustad, 2023). This accessibility also affects how much people participate in the digital economy while in specific groups, such as older adults and people with disabilities, it shows that limited access changes both how often and how they use the internet. Along with this, users with high-quality connections are more likely to be active in searching for information, checking product reviews, and making purchases. In contrast, those with poor access face major barriers when purchasing things online. In Indonesia, Muljono et al. (2025) studied how internet accessibility moderates online shopping intentions across major economic areas, such as Jabodetabek, Joglosemar, and Gerbang Kertosusila . Using Partial Least Squares analysis, the study found that accessibility is a significant moderator. Specifically, it strengthens the connections between convenience and shopping intention, as well as between startup credibility and consumer attitudes. These results show that internet accessibility is a key factor that can either strengthen or weaken the relationships between different variables in online commerce.

Purchase decision

Purchase decisions is a process that occurs when a customer decides to buy something from a seller (Hair et al., 2022). There are a few stages when buying things online and it first starts when you realize that you need something, you will look for information, then comparing options available, and finally making the purchase (Paulina et al., 2024). The conventional consumer decision making model proposed by Engel, Blackwell, and Miniard from previous study tells that purchase decisions are mostly influenced by different internal factors, including motivation, perception, and attitudes, as well as external factors such as the environment and marketing efforts. At the same time, studies on online consumer behavior show that many things affect what people buy, such as the product itself, the person buying it, and the online environment (Gunawan et al., 2021). Factors like E-WOM and trust are very important for digital products because customers cannot touch or see the products in person. When people are looking at digital products, they rely more on information they find online, like reviews, ratings, and testimonials from other users.

Contributions of Indonesian researchers

A number of previous studies led by Indonesian researchers have significantly contributed to the study of digital consumer behaviors in Indonesia. One example is Paulina et al. (2024), who used the Task Technology Fit model to compare the use of new products, such as digital wallets, on multiple digital platforms in Indonesia. The study concludes that the alignment between task characteristics and technology significantly impacts the adoption of digital products. Gunawan et al. (2021) also used the Expectation Confirmation Model to look into how radical and incremental innovation affect Indonesia's top e-commerce startups. The research indicated that product innovation affects consumer satisfaction and loyalty. From the perspective of trust and E-WOM, Dewi and Darma (2014) analyzed the roles of website usability, satisfaction, loyalty, perceived security, and trust in developing positive word of mouth in e-commerce businesses. Wahyuni and Darma (2019) examined the influence of mobile advertising and product social value on purchase intention among Instagram users in Bali.

Hypothesis development

Based on the research questions and the theoretical framework outlined above, the research hypotheses are developed as follows:

H1: The effect of E-WOM on purchase decisions

Several factors support the development of the first hypothesis. First, E-WOM provides the one information consumers need to evaluate digital products they cannot physically test. Second, positive and credible feedback helps to reduce the uncertainty often associated with purchasing intangible goods. Third, previous studies confirm that E-WOM significantly influences both the intention to buy and the final purchase decision (Albayrak and Ceylan, 2021; Babić Rosario et al., 2016; Khan et al., 2023). Therefore:

H1: Electronic word of mouth (E-WOM) has a significant positive effect on digital product purchase decisions in Indonesian e-startups.

H2: The effect of trust on purchase decisions

Trust serves as an important role in online transactions, especially for digital products that involve uncertainty and risk. Consumers who trust an e-startup are more likely to feel secure and confident in making a purchase. This hypothesis is supported by previous studies that focus on the central role of trust in online transactions (Gefen et al., 2003; Wang et al., 2022). Therefore:

H2: Trust has a significant positive effect on digital product purchase decisions in Indonesian e-startups.

H3: The moderating role of internet accessibility
Internet accessibility likely functions as a moderator for E-WOM influence. Consumers with high-quality access can explore online reviews in depth and verify the credibility of information before purchasing. This ability strengthens the connection between E-WOM and the final purchase decision. However, limited connectivity restricts a consumer's capacity to access and process these reviews. Muljono et al. (2025) previously suggests internet accessibility as a significant moderator within the Indonesian market. Therefore:
H3: Internet accessibility moderates the effect of electronic word of mouth (E-WOM) on digital product purchase decisions in Indonesian e-startups.

H4: The moderating role of internet accessibility in the relationship between trust and purchase decisions
Consumers with good internet access have more higher probability to easily verify claims made by e-startups, obtain information about the company reputation, and interact with customer service. This condition strengthens the conversion of trust into actual purchase decisions. In contrast, limited internet access may delay the confirmation process and increase perceived risk. Therefore:

H4: Internet accessibility moderates the effect of trust on digital product purchase decisions in e-startups in Indonesia.

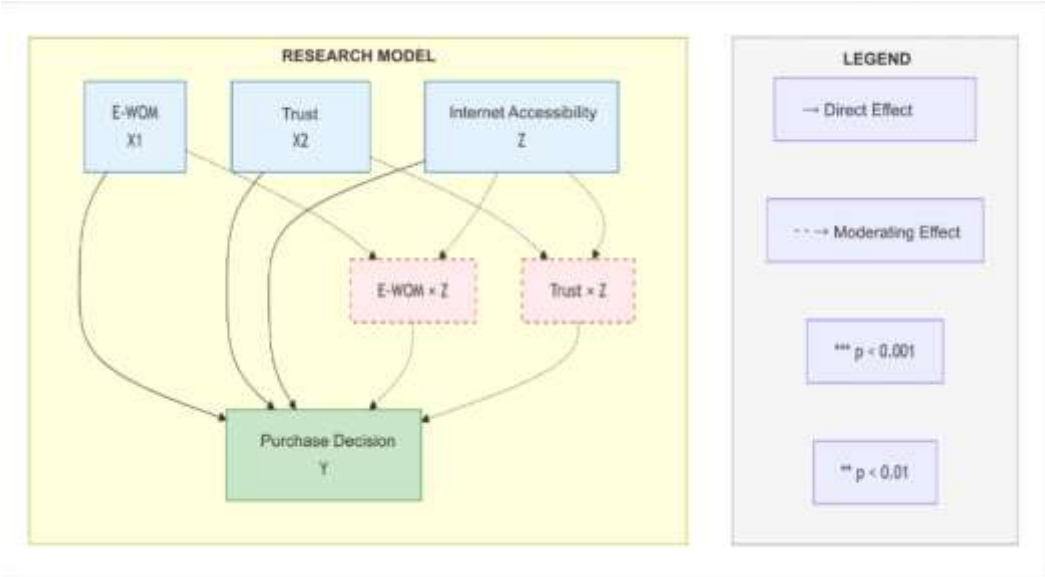

Figure 1. Research Model

METHODOLOGY

Research type and approach
This study employs a quantitative approach with an explanatory research design. This approach was selected because it aims to explain the causal relationships among variables and to test the formulated hypotheses (Creswell and Creswell, 2018). An explanatory design enables researchers not only to describe phenomena but also to explain the cause-and-effect relationships among the variables under investigation.

Population and sample
The population of this study consists of all consumers in Indonesia who have purchased digital products from e-startups. The digital products referred to in this study include paid applications, software-as-a-service (SaaS), premium digital content, e-books, digital music, and subscription-based streaming services. The selection of this population is based on the consideration that digital product consumers possess unique characteristics in their decision-making processes.
The sampling technique employed in this study is purposive sampling with the following inclusion criteria: (1) at least 17 years old (the age of adulthood considered sufficient for making independent purchase decisions), (2) having purchased a digital product from an Indonesian e-startup at least once within the last six months (to ensure relevant purchasing experience), and (3) having internet access (a prerequisite for purchasing digital products). These criteria were established to ensure that respondents possessed relevant experience related to the phenomenon under investigation.
The sample size was determined based on the recommendation of Hair et al. (2022), which suggests a minimum of 10 times the number of indicators. Given that the study uses 20 indicators (5 indicators per variable × 4 variables), the minimum required sample size is 200 respondents. To prepare for incomplete or invalid responses, we aimed to get data from 200 respondents who met all of our criteria for inclusion.

Operational definitions and variable measurement

A five-point Likert scale was used to measure all of the variables, with 1 being "strongly disagree" and 5 being "strongly agree." We chose a five-point Likert scale because it strikes a good balance between being sensitive to measurements and making it easy for people to answer (see Table 1).

Purchase Decision (Y) is defined as the consumer decision-making process to purchase digital products offered by e-startups. The indicators used include: (1) intention to purchase digital products, (2) preference for purchasing the product, (3) confidence in purchasing the product, (4) actual purchase behavior, and (5) recommendation to others (Hair et al., 2022; Paulina et al., 2024).

Electronic Word of Mouth (X1) is defined as informal communication among consumers regarding digital products through digital platforms. The indicators used include: (1) intensity of reading online reviews, (2) perceived usefulness of reviews, (3) perceived credibility of reviews, (4) influence of reviews on decisions, and (5) tendency to purchase products with positive reviews (Babić Rosario et al., 2016; Ismagilova et al., 2017).

Trust (X2) is defined as the consumer's belief that an e-startup is reliable and will fulfill its obligations. The indicators used include: (1) startup honesty, (2) fulfillment of promises, (3) concern for consumers, (4) startup competence, and (5) transaction security (Gefen et al., 2003; Gupta et al., 2023).

Internet Accessibility (Z) is defined as the level of ease with which consumers can access the internet, including the availability of infrastructure, connection quality, and affordability. The indicators used include: (1) network availability, (2) connection speed, (3) connection stability, (4) affordability, and (5) ease of access at any time (Muljono et al., 2025; Vassilakopoulou and Hustad, 2023).

Data collection technique

Data were collected through an online survey using a structured questionnaire distributed through various social media platforms, online discussion forums, and digital product user communities. The questionnaire was designed using Google Forms and distributed over a two-month period (January–February 2026). The selection of the online survey method was based on its cost and time efficiency, as well as its suitability for the characteristics of the target population, which consists of active internet users.

Before being widely distributed, the questionnaire was pilot-tested on 30 respondents to assess the validity and reliability of the instrument. The pilot test results showed that all instruments had Cronbach's Alpha values greater than 0.7 and item-total correlation values greater than 0.3, indicating that the instruments were valid and reliable.

Variable	Operational Definition	Indicators	Source
Purchase Decision (Y)	The consumer decision-making process to purchase digital products offered by e-startups	1. Intention to purchase the product 2. Preference for purchasing the product 3. Confidence in purchasing the product 4. Actual purchase behavior 5. Recommendation to others	(Hair et al., 2022; Paulina et al., 2024)
Electronic Word of Mouth (X1)	Informal communication among consumers regarding digital products through digital platforms	1. Intensity of reading online reviews 2. Perceived usefulness of reviews 3. Perceived credibility of reviews 4. Influence of reviews on decisions 5. Tendency to purchase products with positive reviews	(Babić Rosario et al., 2016; Ismagilova et al., 2017)
Trust (X2)	The consumer's belief that an e-startup is reliable and will fulfill its obligations	1. Startup honesty 2. Fulfillment of promises 3. Concern for consumers 4. Startup competence 5. Transaction security	(Gefen et al., 2003; Gupta et al., 2023)
Internet Accessibility (Z)	The level of ease with which consumers can access the internet, including infrastructure availability, connection quality, and affordability	1. Network availability 2. Connection speed 3. Connection stability 4. Affordability 5. Ease of access at any time	(Muljono et al., 2025; Vassilakopoulou and Hustad, 2023)

Table 1. *Operational Definitions and Variable Indicators*

Data analysis technique

The data were analyzed using Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) approach through SmartPLS 4.0 software. PLS-SEM was selected because of its ability to handle complex models with multiple indicators and variables, as well as its lack of strict normality assumptions (Hair et al., 2022). This approach is highly appropriate for explanatory research involving relatively complex models.

The data analysis was conducted in two stages:

- **Measurement model evaluation (Outer Model)**

The measurement model evaluation includes: (1) convergent validity testing, assessed through loading factor values (>0.7) and Average Variance Extracted (AVE >0.5) (Fornell and Larcker, 1981); (2) discriminant validity testing, assessed through the Fornell-Larcker criterion (the square root of AVE is greater than the correlation between constructs) and cross loadings; and (3) reliability testing, assessed through Composite Reliability (>0.7) and Cronbach's Alpha (>0.7) (Nunnally and Bernstein, 1994).

- **Structural model evaluation (Inner Model)**

The structural model evaluation includes: (1) coefficient of determination (R^2) testing, which measures the extent to which independent variables explain the dependent variable, with R^2 values of 0.75 (substantial), 0.50 (moderate), and 0.25 (weak) (Hair et al., 2022); (2) direct effect significance testing using bootstrapping (resampling of 5,000 samples) to examine the significance of the effects of E-WOM and trust on purchase decisions (H1 and H2) ; and (3) moderation effect testing using the product indicator approach in PLS-SEM to determine whether internet accessibility moderates the relationships between E-WOM and trust with purchase decisions (H3 and H4). Hypotheses are accepted if the t-statistic value is greater than 1.96 (p-value <0.05).

RESULTS

Respondent profile

Based on the data collected from 200 respondents, the demographic characteristics of the respondents are presented in **Table 2**.

Characteristics	Category	Frequency	Percentage (%)
Gender	Male	98	49.0
	Female	102	51.0
Age	17-25 years	142	71.0
	26-35 years	38	19.0
	36-45 years	15	7.5
	>45 years	5	2.5
Highest Education	Senior High School/Equivalent	42	21.0
	Diploma (D3)	18	9.0
	Bachelor's Degree (S1)	98	49.0
	Master's Degree (S2)	32	16.0
	Doctoral Degree (S3)	10	5.0
Occupation	Student	112	56.0
	Private Employee	58	29.0
	Civil Servant/State-Owned Enterprise Employee	12	6.0
	Entrepreneur	14	7.0
	Others	4	2.0
Domicile (Island)	Java	128	64.0
	Sumatera	32	16.0
	Kalimantan	12	6.0
	Sulawesi	10	5.0
	Bali/Nusa Tenggara	12	6.0
	Maluku/Papua	6	3.0
Type of Digital Product	Paid applications	156	78.0

	Software-as-a-Service	88	44.0
	E-books/Digital content	52	26.0
	Digital music	48	24.0
	Streaming services	180	90.0
Purchase Frequency	1-2 times	68	34.0
	3-5 times	72	36.0
	6-10 times	40	20.0
	>10 times	20	10.0

Table 2. *Respondent Profile (N = 200)*

Based on Table 2, most of the people who answered were women (51%), between the ages of 17 and 25 (71%), had a bachelor's degree (49%), were students (56%), and lived on Java Island (64%). Streaming services and paid apps became the most popular options, with 90% and 78% of users choosing them, respectively. Most of the people who took part said they had made 3 to 5 purchases in the last six months. The fact that 64% of respondents are from Java shows that the island is a digital economic hub, which suggests that the location of the respondents is an important part of this analysis.

Measurement model evaluation

Convergent validity test

All indicators met the standards for convergent validity, with loading factors above 0.7 and AVE values above 0.5. Table 3 shows the results of these tests, which show that our measurement model is reliable.

Variable	**Indicator**	***Loading Factor***	**AVE**	**Remark**
E-WOM (X1)	EWOM1	0.785	0.638	Valid
	EWOM2	0.812		
	EWOM3	0.758		
	EWOM4	0.834		
	EWOM5	0.791		
Trust (X2)	TRU1	0.802	0.652	Valid
	TRU2	0.845		
	TRU3	0.776		
	TRU4	0.819		
	TRU5	0.788		
Internet Accessibility (Z)	AKS1	0.815	0.641	Valid
	AKS2	0.828		
	AKS3	0.792		
	AKS4	0.745		
	AKS5	0.801		
Purchase Decision (Y)	KP1	0.824	0.635	Valid
	KP2	0.798		
	KP3	0.812		
	KP4	0.756		
	KP5	0.785		

Table 3. *Convergent Validity Test Results*

Discriminant validity test

The results of the discriminant validity test using the Fornell-Larcker criterion indicate that the square root of the AVE for each construct is greater than the correlations among constructs, thereby satisfying the discriminant validity criterion (**Table 4**).

Variable	E-WOM	Trust	Internet Accessibility	Purchase Decision
E-WOM	**0.799**			
Trust	0.485	**0.807**		
Internet Accessibility	0.412	0.438	**0.801**	
Purchase Decision	0.542	0.587	0.478	**0.797**

Table 4. *Discriminant Validity Test Results (Fornell-Larcker Criterion)*

Note: The values on the diagonal (in bold) represent the square root of AVE, which is greater than the correlations among constructs below them, thus meeting the discriminant validity criterion.

Reliability test

The reliability test results indicate that all constructs have Composite Reliability and Cronbach's Alpha values greater than 0.7, thereby satisfying the reliability criterion (**Table 5**)

Table 5. Reliability Test Results

Variable	Cronbach's Alpha	Composite Reliability (rho_c)	Remark
E-WOM	0.858	0.898	Reliable
Trust	0.867	0.904	Reliable
Internet Accessibility	0.862	0.900	Reliable
Purchase Decision	0.857	0.897	Reliable

Structural Model Evaluation

Coefficient of determination test (R^2)

The coefficient of determination test results show that the R^2 value for the purchase decision variable is 0.524. This means that the variables of E-WOM, trust, and moderation interactions jointly explain 52.4% of the variance in digital product purchase decisions, which falls into the moderate category (Hair et al., 2022).

Goodness of fit test

The Standardized Root Mean Square Residual (SRMR) value of 0.062 (< 0.10) and the Normed Fit Index (NFI) value of 0.903 (> 0.90) indicate that the model has a good fit.

Predictive relevance test (Q^2)

The Q^2 value for the purchase decision variable is 0.327 (> 0), indicating that the model has good predictive relevance.

Effect size test (f^2)

The effect size test results show that trust has the greatest influence on purchase decisions ($f^2 = 0.156$), followed by E-WOM ($f^2 = 0.112$), while the moderation effects have relatively small influences ($f^2 = 0.038–0.045$).

Hypothesis Testing

Hypothesis testing was conducted by examining the path coefficient (β), t-statistic, and p-value obtained from the bootstrapping results (5,000 resamples). A summary of the hypothesis testing results is presented in **Table 6**.

Hypothesis	Relationship	β	Standard Error	t-statistic	p-value	95% LL	CI95% UL	CIf^2	Remark
H1	E-WOM → Purchase Decision	0.324	0.066	4.876	0.000	0.195	0.453	0.112	**Accepted**
H2	Trust → Purchase Decision	0.415	0.067	6.234	0.000	0.284	0.546	0.156	**Accepted**
H3	E-WOM × Internet Accessibility → Purchase Decision	0.156	0.055	2.845	0.004	0.048	0.264	0.038	**Accepted**
H4	Trust × Internet Accessibility → Purchase Decision	0.178	0.056	3.201	0.001	0.068	0.288	0.045	**Accepted**

Table 6. *Hypothesis Testing Results*

Note: CI = Confidence Interval, LL = Lower Limit, UL = Upper Limit; Bootstrapping with 5,000 subsamples; *** p < 0.001, ** p < 0.01; f²: 0.02 (small), 0.15 (moderate), 0.35 (large)

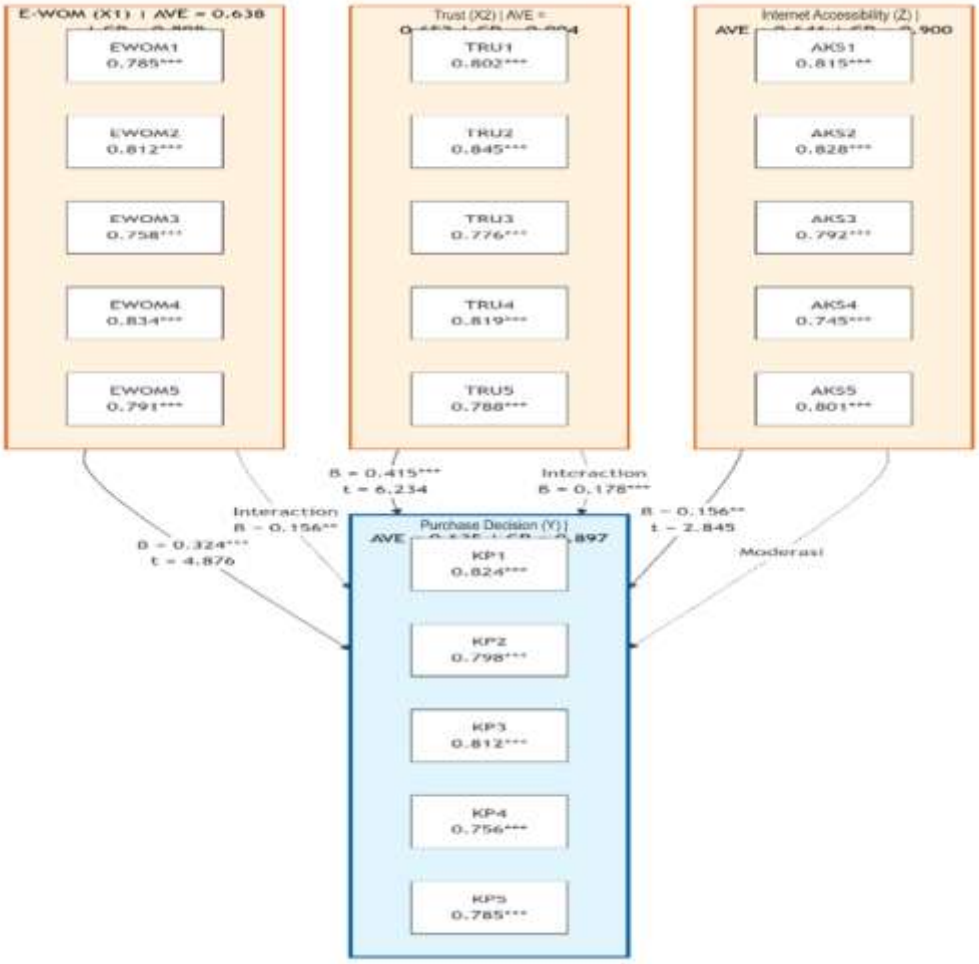

Figure 2. Path Diagram of the Research Model with SmartPLS Analysis Results
Note: *** p < 0.001, ** p < 0.01; AVE = Average Variance Extracted; CR = Composite Reliability; the numbers on the indicators represent loading factors; the numbers on the arrows represent path coefficients (β)

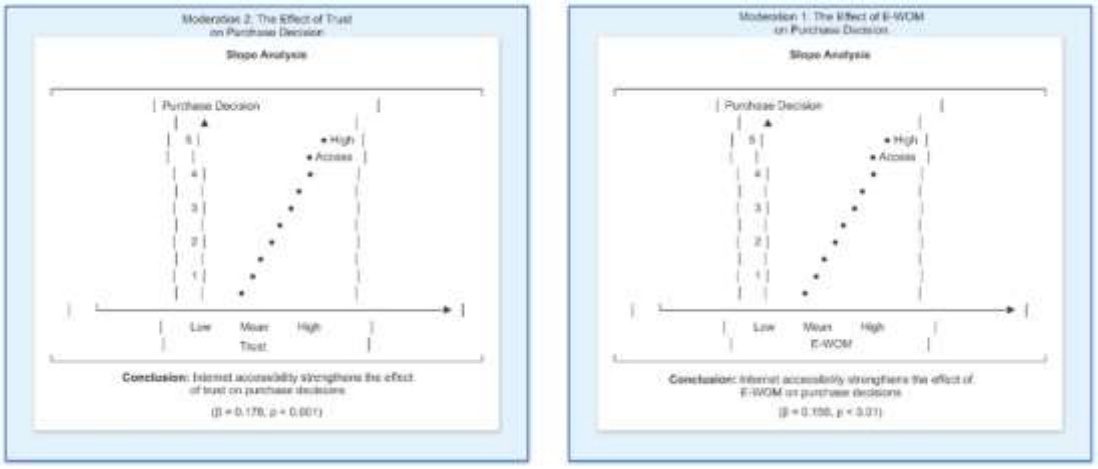

Figure 3. Slope Analysis of the Moderating Effect of Internet Accessibility

Note: High Access = High internet accessibility (+1 SD); Low Access = Low internet accessibility (-1 SD)

DISCUSSION

The effect of E-WOM on digital product purchase decisions

The results of the study indicate that E-WOM has a positive and significant effect on digital product purchase decisions ($\beta = 0.324$, $t = 4.876$, $p < 0.001$), thus H1 is accepted. This finding is consistent with the study by Babić Rosario et al. (2016), which found that E-WOM is positively correlated with sales, as well as the study by Albayrak and Ceylan (2021), which confirmed the significant effect of E-WOM on purchase intention.
In the context of intangible digital products, E-WOM serves as a mechanism for reducing uncertainty. Consumers who are unable to physically evaluate digital products before purchase rely on reviews and the experiences of other consumers as credible sources of information. This finding reinforces the argument of Matute et al. (2023) that the characteristics of E-WOM influence trust and perceived usefulness, which ultimately affect purchase decisions. The more intensively consumers read online reviews, the greater their perception of the credibility of the information received, which in turn increases their confidence in making a purchase.
These results are also consistent with the findings of Khan et al. (2023), who found that E-WOM has a positive effect on purchase intention through the mediation of brand equity. In the context of e-startups, which may not yet possess strong brand equity, E-WOM becomes an important alternative for building positive perceptions of products. The effect size value ($f^2 = 0.112$) indicates that the influence of E-WOM on purchase decisions falls into the small-to-moderate category, meaning that although the effect is significant, there are other factors that also play important roles.
Interestingly, this study found that the highest loading factor value for the E-WOM construct was found in indicator EWOM4 ("Information from online reviews strongly influences my decision to purchase digital products") with a value of 0.834. This finding suggests that digital product consumers are highly influenced by the information they obtain from online reviews, beyond merely the intensity of reading reviews or their perception of review credibility. This finding indicates that, in the context of digital products, E-WOM information has strong persuasive power because consumers perceive such information as highly relevant and applicable to their purchase decisions.

The effect of trust on digital product purchase decisions

From our study, we learned that trust has a positive and significant effect on digital product purchase decisions ($\beta = 0.415$, $t = 6.234$, $p < 0.001$), thus H2 is accepted. This finding match with the study by Gefen et al. (2003), which suggests the central role of trust in online transactions, as well as the study by Wang et al. (2022), which found a significant relationship between trust and purchase intention across cultures. Along with this, trust becomes an Important foundation in digital product transactions due to the nature of products that cannot be physically returned. Consumers need to be confident that the e-startup will deliver products as promised, maintain data security, and provide good customer support. This finding is also in line with the study by Gupta et al. (2023), which showed that trust mediates the relationship between platform credibility and customer loyalty. For new e-startups that do not yet have a good reputation, trust becomes a crucial differentiating factor.
The effect size value ($f^2 = 0.156$) indicates that trust has a moderate effect on purchase decisions greater than the effect of E-WOM. This means that even E-WOM is important, trust is a more important factor in driving digital product purchase decisions and conclude that consumers tend to rely more on their trust in the e-startup than on information from third parties. Furthermore, our study also finds out that the indicator with the highest loading factor for the trust construct is TRU2 ("I believe that the e-startup providing digital products will fulfil the promises made to consumers") with a value of 0.845. From these findings, we can conclude that consumers will pay close attention to the consistency between promises and actual performance by e-startups, and that the ability of e-startups to fulfil their promises becomes highly important in digital product world.

The moderating role of internet accessibility

Our data shows that internet accessibility is not just a utility, but it also serves as a important role that enhance digital influence. We validated H3 and discovered that the actual influence of E-WOM on a purchasing decision is directly correlated with the quality of the user's connection ($\beta = 0.156$, $t = 2.845$, $p < 0.01$). This means to what we could refer to as a "technical empowerment" effect. Indonesian consumers can use digital tools to check reviews and make sure the information is true before they click "buy" when they have stable and a good internet access. Without good internet access, even the best reviews cannot convince people to buy something. At the same time our data also revealed similar analysis of consumer trust and conclude H4 ($\beta = 0.178$, $t = 3.201$, $p < 0.01$). This means that having good internet access can make a belief turn into a decision to buy by lowering mental barriers. Consumers can easily check e-startup credentials and their reputations, as well as talk to support teams, when they have good connectivity. These results align with the study by Muljono et al. (2025), which previously suggested that accessibility is a significant moderator in the Indonesian market. Overall, it is true that the recorded effect sizes ($f^2 = 0.038–0.045$) seem small from a statistical point of view, but their task is more of

a qualitative one. They function like a "volume knob," amplifying existing trust and E-WOM rather than altering their nature. For e-startups, this implies that improving digital infrastructure has psychological as well as technical benefits. In other words, enhancing social proof and credibility tools can better connect with customers.

Theoretical implications

This research theoretically combines electronic word of mouth (E-WOM), trust, and internet accessibility into a single framework, a combination that is rarely studied in one empirical study. The model shows that consumers do not only purchase digital products based on the information received (E-WOM) or the trust established but they are also affected by how well the user is connected to the internet. Along with this, this study influences the academic perspective on internet accessibility. Previous studies on digital products considered infrastructure as a passive background while this study enhances our comprehension of how physical technical constraints influence online consumer psychology by validating its function as a moderator. These insights shows that digital connectivity transcends a mere technical necessity, but it constitutes a critical boundary condition that can significantly enhance or impede the efficacy of any digital marketing strategy.

Practical implications

The research gives professionals and e-startup managers a strategic point of view that helps understanding the digital landscape in Indonesia. From our data, we can understand that It is important that we do not just watch digital conversations, every single-unit increase in E-WOM scores can lead to a 0.324-unit increase in purchase decisions. This means, managers should not fall into the trap of only going after quantity. The high loading factor for information quality (0.834) shows that Indonesian consumers do not want promises but they want something real so instead of just collecting ratings, creating a high value with detailed testimonials as well as using social media forums to help potential buyers understand the risks that cannot be seen are totally recommended. Although Electronic word of mouth (E-WOM) is an important factor in digital purchase decisions which mentioned previously, we have concluded that trust is the most important factor ($\beta = 0.415$), and it serves as an important replacement for checking physical products in digital markets. The results show that "keeping promises" (loading factor 0.845) is the most significant sign of trustworthiness. For e-startups, Secure Sockets Layer (SSL) certifications, clear return policies, and responsive support are all crucial for showing off customers that a platform is reliable. Besides E-WOM and Trust Factors, digital infrastructure is also another important factor that affects digital products' buying decision. The data shows that 64% of the people who have responded are from Java. There are areas outside Java where internet access is still hard to reach, and startups need to find a solution for them to maximize more potential customers. They need a basic plan such as using smaller files that do not use too much internet to make a purchase. People in these areas who want to use your service can also benefit from working with local internet service providers. Overall, the plan must be adjusted for the generation who grew up immersed in digital technology era. E-startups are basically talking to Gen Z because 71% of the market is made up of people between the ages of 17 and 25. This group knows a lot about technology, but they are very price-sensitive and do not trust polished businesses. To get their loyalty, marketing should stop using traditional ads and start using real, relatable content that takes into account their digital skills and desire for transparency. To be successful in the national market, technology will need to be adapted to fit the real infrastructure and demographics of the people who will be using it.

CONCLUSION

Conclusion

This study reveals that electronic word of mouth (E-WOM) has a positive and significant effect on digital product purchase decisions in e-startups in Indonesia ($\beta = 0.324$, $t = 4.876$, $p < 0.001$). The better consumers' perceptions of E-WOM, the higher their tendency to decide to purchase digital products.
We also conclude trust has a positive and significant effect on digital product purchase decisions in e-startups in Indonesia ($\beta = 0.415$, $t = 6.234$, $p < 0.001$). The higher the level of consumer trust in e-startups, the higher the likelihood of digital product purchase decisions. Trust has a greater influence than E-WOM.
Additionally, internet accessibility moderates the effect of E-WOM on digital product purchase decisions in e-startups in Indonesia ($\beta = 0.156$, $t = 2.845$, $p < 0.01$). The relationship between E-WOM and purchase decisions becomes stronger among consumers with better internet accessibility.
Furthermore, internet accessibility moderates the effect of trust on digital product purchase decisions in e-startups in Indonesia ($\beta = 0.178$, $t = 3.201$, $p < 0.01$). The relationship between trust and purchase decisions becomes stronger among consumers with better internet accessibility.

Research limitations

This study has several limitations and one of them is the issue of Generalizability. While 200 participants provided enough data to satisfy the technical thresholds for PLS-SEM analysis, using a purposive sample means that the findings are limited to a specific demographic or market segment, potentially excluding other relevant consumer groups. Next the study groups different digital products, such as streaming and SaaS into one category, though they may have different consumer behaviors. Besides that, the cross-sectional design captures a snapshot in time, which limits the ability to observe changes in consumer habits over time and may affect the understanding of evolving market trends. Last thing to be concerned of is the 52.4% buying behavior from the data, this indicates that important factors such as price sensitivity and user experience remain unexplored and need further study.

Suggestions for future research

Based on the identified limitations, several suggestions for future research can be proposed:
1. Use probability sampling methods with a larger sample size to improve the generalizability of the research findings.
2. Conduct comparative analyses across different types of digital products, such as comparisons between utilitarian and hedonic digital products, to determine whether the patterns of relationships among variables are consistent or vary.
3. Employ a longitudinal research design to capture changes in consumer behavior over time, particularly in relation to the development of digital infrastructure.
4. Include additional variables such as product quality, price, promotion, and user experience as predictor or mediating variables to improve the predictive ability of the model.
5. Conduct cross-regional studies by considering the varying characteristics of digital infrastructure across Indonesia, for example by comparing urban and rural areas, or regions with high internet accessibility, such as Java, and regions with lower internet accessibility, such as Eastern Indonesia

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