

How Do Trust, Customer Review and Product Risk Affect Customer Engagement in Influencing Purchase Intention in e-Commerce Transactions?

Eva Faujiah Suman¹
Kurniawati²

^{1,2}Management, Universitas Trisakti, Indonesia

^{1,2}Authors' correspondence: 122012301091@std.trisakti.ac.id; kurniawati@trisakti.ac.id

Abstract. The numerous e-commerce platforms in Indonesia have driven the public to shift from conventional shopping to online transactions. The ease of use, product variety, and competitive pricing are reasons for the popularity of e-commerce. This study aims to determine the influence of Online Customer Review, Trust, and Product Risk on Purchase Intention, with Customer Engagement as a mediating variable in e-commerce transactions. The research is descriptive and quantitative, involving 221 respondents who have shopped via e-commerce platforms. The data analysis technique uses the Structural Equation Model AMOS 22 method. The results show that customer trust and reviews positively affect customer engagement and purchase intention. Additionally, customer engagement positively influences purchase intention. Lastly, product risk negatively affects purchase intention, although not significantly. The novelty of this research from the main journal is the addition of Customer Reviews as an independent variable that positively influences purchase intention, and product risk as an independent variable that negatively affects purchase intention. The implication of this research suggests that online sellers should encourage customers to provide feedback on every purchase, thereby using customer reviews as an indirect promotional tool. Furthermore, product content should consider the perceived product risk by creating reliable content.

Keywords: Customer engagement; Customer review; Product risk; Purchase intention; Trust.

Abstrak. Banyaknya platform e-commerce di Indonesia, telah mendorong masyarakat berpindah saluran belanja melalui online dari transaksi konvensional. Berbagai macam kemudahan yang ditawarkan, variasi produk serta persaingan harga menjadi alasan e-commerce cukup diminati. Penelitian ini bertujuan untuk mengetahui pengaruh kepercayaan, ulasan pelanggan dan Risiko Produk terhadap Minat beli dengan Customer Engagement sebagai mediasi pada transaksi e-commerce. Penelitian berupa deskriptif kuantitatif

dengan melibatkan 221 responden yang pernah melakukan belanja melalui platform e-commerce. Sedangkan teknik analisis data menggunakan metode Structural Equation Model AMOS 22. Hasil penelitian menunjukkan bahwa kepercayaan dan ulasan pelanggan berpengaruh positif terhadap keterlibatan pelanggan dan niat beli. Selain itu keterlibatan pelanggan berpengaruh positif terhadap niat beli. Terakhir risiko produk berpengaruh negatif terhadap niat beli walaupun tidak signifikan. Perbaruan penelitian dari jurnal utama adalah penambahan variabel ulasan pelanggan sebagai variabel independen yang dapat berpengaruh signifikan dan positif terhadap niat beli. Selain itu, variabel risiko produk sebagai variabel independen berpengaruh signifikan dan negatif terhadap niat beli. Implikasi dari penelitian ini adalah penjual online sebaiknya lebih mampu mendorong pelanggannya untuk memberikan umpan balik pada setiap pembelian mereka, sehingga menjadikan ulasan pelanggan sebagai sarana promosi secara tidak langsung. Selanjutnya, konten penjualan produk harus mempertimbangkan risiko produk yang dirasakan konsumen dengan membuatnya lebih dapat dipercaya.

Kata kunci: Kepercayaan; Keterlibatan pelanggan; Minat beli; Risiko produk; Ulasan pelanggan

Article Info:

Received: July 16, 2024

Accepted: July 27, 2024

Available online: December 31, 2024

DOI: <http://dx.doi.org/10.30588/jmp.v14i1.1869>

BACKGROUND

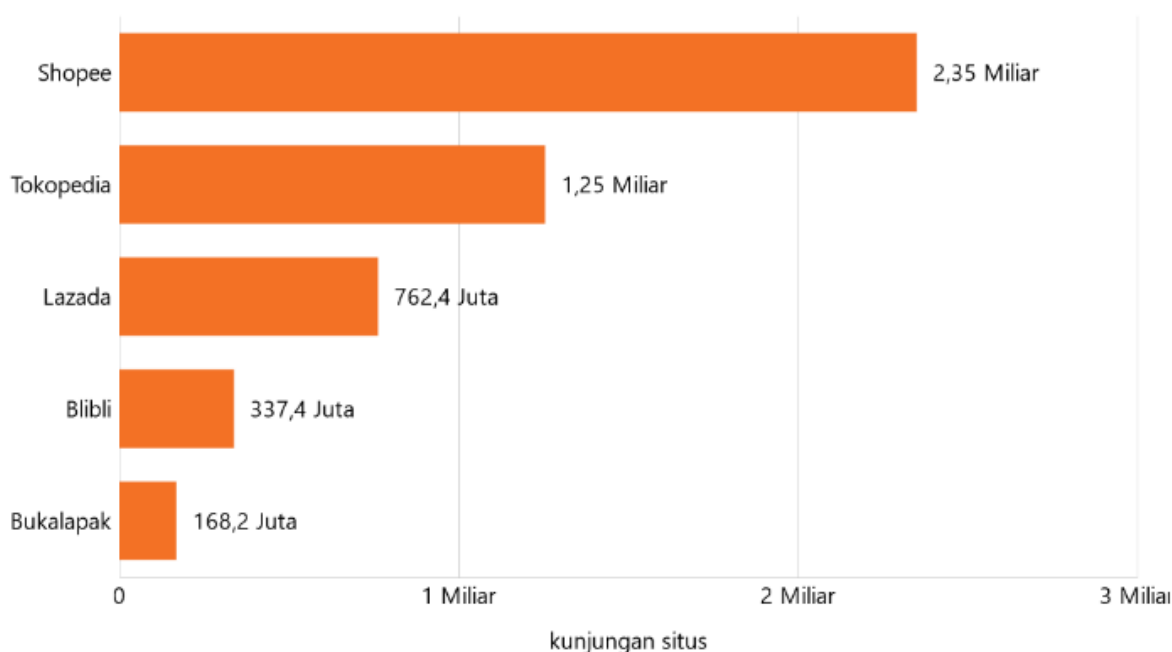
The growth of information and communication technology has significantly impacted society, including driving rapid economic growth. BPS (Badan Pusat Statistik) published that Indonesia's Technology Development Index in 2022 reached 5,85, showing an increase from 5,76 in 2021 on a scale of 0-10 (BPS, 2023). The ease of internet access is felt by almost everyone, not just a few. Correspondingly, the Indonesian Internet Service Providers Association (APJII) announced that the number of internet users in Indonesia in 2024 will reach 221 million out of the total population of 278 million in 2023 (APJII, 2024).

In the economic sector, this growth in information and communication technology has led to an increase in e-commerce transactions. The Ministry of Trade estimates that the value of digital or e-commerce transactions will reach IDR 533 trillion in 2023, up from IDR 476 trillion the previous year (Kementerian Perdagangan RI, 2024). The rapid growth of e-commerce transactions aligns with the lifestyle changes of a society closely connected with gadgets and the internet. Various societal needs are comprehensively provided through various platforms offering diverse products without leaving home.

Databoks released the top five e-commerce platforms in Indonesia with the highest visit rates for the period of 2023 (Fig. 1). Shopee is the Indonesian e-commerce platform with the most site visitors in 2023, according to SimilarWeb data (Adi, 2024). Shopee recorded a cumulative 2,3 billion site visits, compared to its competitors. During the same period,

Tokopedia received 1,2 billion visits, and Lazada had 7.624 million visits. Meanwhile, BliBli had 337,4 million visits, and Bukalapak had 168,2 million visits (Adi, 2024).

Up to the present, consumers still have negative perceptions of online shopping due to the potential risks they may face (Hadi et al., 2021). This is because consumers cannot see, touch, or try the products or services they intend to purchase. Therefore, consumers must remain cautious when shopping online to avoid disappointment if the received product does not meet expectations. In some cases, there is a risk of online fraud that can harm consumers. Online shop scams are the most commonly used fraud schemes, causing losses of up to billions of rupiah (Direktorat Jenderal Bea dan Cukai, 2023).



Source: Adi (2024).

Figure 1. E-commerce with the highest visitors for January-December 2023

One factor in considering shopping through e-commerce is the brand or merchant's trust level through their star ratings and sales volume. High trust in a brand can reduce perceived risk towards that brand (Shin et al., 2019). Furthermore, user reviews offer more pertinent information about the product than what is presented, based on information from other consumers who have already purchased it. Compared to bad content evaluations, positive customer ratings can improve attitudes and increase buy intentions. (Hartini et al., 2022). Furthermore, the reliability dimension of brand trust has a mediating effect on how consumers review online, with the likelihood of purchase willingness, as words are recognized and credible sources of information dissemination (Lu & Bai, 2021).

Customer engagement in providing ratings, reviews, or comments can influence purchase intention. Customer reviews have become a dominant variable directly influencing

purchase intention through argument quality (Rahayu et al., 2021). Additionally, other research focuses on specific virtual engagement platforms (Santini et al., 2020); (Unnava & Aravindakshan, 2021). Accordingly, the research opined that it is important to investigate the influence of trust, customer reviews and perceived product risk when used in ecommerce, which are aimed at gaining customer engagement and the intention to purchase from their targeted market.

The purpose of this study to analyse the impact of trust, Customer Review and Product Risk on purchase intention, both directly and through the mediation of customer engagement in e-commerce shopping. Therefore, this article attempts to explore the relationships between variables influencing customer engagement in e-commerce shopping and their impact on purchase intention. In view of the context mentioned above, the research problem is whether there is an influence of each variable, namely Trust, Customer Reviews, Product Risk, and Customer Engagement, on purchase intention in e-commerce. Although previous research has discussed these variables, this study attempts to update review customer online and product risk variables that can influence purchase intention, especially in e-commerce shopping.

THEORETICAL REVIEW

Technology Acceptance Model (TAM)

TAM is a theory which assists to analyse and comprehend the variables affecting consumers' adoption of new technologies. Two main factors influencing this are the ease of use of the technology and perceived usefulness, which is how consumers think the new technology can support them in reaching their objectives. Davis (1989) proposed TAM to explain fundamental innovation acceptance predictors, which in turn helped to explain user behaviour through a variety of end-user computer platforms.

E-commerce

According to the OECD (Organization for Economic Co-Operation and Development, 2009), the buying and selling of goods and services using computer networks using order placement and receipt systems is known as electronic commerce. The term "e-commerce" refers to an electronic commerce system that uses electronic media for marketing purposes. E-commerce, to put it simply, is the online purchase and sale of goods and services. At this time e-commerce has a strong relationship with business strategy and that this relationship can be affected by certain moderators (Alzahrani, 2019). In other words, e-commerce offers convenience in online shopping (Dianari, 2018).

Purchase Intention

Purchase intention is a crucial indication of consumer behaviour since it predicts whether or not a consumer will purchase a specific product (Khan et al., 2021). According to Osei-Frimpong et al. (2019), the chance of customers making a purchase is an important aspect in assessing the success of celebrity endorsements. This is an important indicator in understanding consumer behavior and helps companies in formulating effective marketing strategies.

Customer Engagement

Customer engagement emphasizes the observable behaviors that demonstrate customer involvement with the brand (Carlson et al., 2018). How customers can interact, respond, or provide feedback on existing brands/products includes giving product reviews, becoming followers on the product's social media, or other interactions provided by the brand/product. This encompasses engaging with personnel in physical retail establishments and conversing with brand representatives in digital marketplaces (Behnam et al., 2023).

Customer involvement may encompass the act of offering input to the brand through social media platforms (Carlson et al., 2018). The primary objective of customer engagement platforms, from a management standpoint, is to provide frameworks that facilitate continuous and open communication between businesses and their consumers (Marino & Lo Presti, 2019). Increased consumer engagement with a brand positively correlates with a higher likelihood of their engaging in word-of-mouth promotion. On the other hand, if consumers' opinions are unfavorable, it will also have a negative effect. Customers' inclination to participate results in customer interaction behavior on both tangible and digital platforms (Winell et al., 2023).

Trust

Trust perception in customers is related to attention, care, loyalty, honesty, and satisfaction (Glaveli, 2020). Trust has a significant role in shaping loyalty, compelling customers to desire to come back (Mariño-Romero et al., 2020). Trust is crucial in creating positive brand associations and long-term relationships between brands and customers (Ebrahim, 2020). Therefore, it is important to sell brands/products according to what is marketed, both in terms of quality and specifications. Additionally, Shin et al. (2019) said that trust is essential in creating loyalty as it establishes a valuable relationship. This can be a long-term investment to maintain customer loyalty. Similarly, Duffett and Maraule (2023) conclude that customers have confidence in a brand who more inclined to interact with the business's digital marketing communications.

Customer Reviews

Consumer reviews are testimonials provided by customers on their buying experiences, which play a crucial role in influencing consumers' purchasing choices (Shihab & Putri, 2019). These customer evaluations offer valuable perspectives on customers' firsthand experiences with a product or service, intended for the benefit of other customers. The information provided in online reviews has a significant influence on one's confidence while making purchase decisions, including the selection of products. Positive internet reviews enhance buyer trust in their product selection (Orús et al., 2019). Additionally, Murphy (2020) said that the Local Consumer Review Survey 2020 revealed that 85 percent of customers use internet reviews when making purchasing decisions. Online reviews are believed to have a significant impact on buyers' perceptions of items and their intentions to make a purchase (Shihab & Putri, 2019).

Product Risk

Product risk indicates the possibility that a product may fail to meet consumer expectations, especially when the delivered product differs from the online display in terms of size, color, and shape (Ariffin et al., 2018). Additionally, Lee and Lee (2022) examined that the influence of parasocial interaction on consumers' purchase intentions from the perspective of perceived risk. This investigation demonstrates a substantial correlation between perceived risk and product risk. The purchase intentions of consumers will be more weakened as the perceived risk associated with online purchasing activities increases (Kim & Lennon, 2013).

Product risk is related to potential problems that can occur with products sold online. It is crucial to bear in mind when creating Google Shopping Ads, as it has an impact on the likelihood of consumers making a purchase (Qalati et al., 2021). Numerous researchers have discovered a correlation between product risk and purchase intentions, particularly among Generation Y (Cabeza-Ramírez et al., 2022; Adam et al., 2022; Lee & Lee, 2022).

Hypothesis Development

Perceived value, trust, and annoyance are widely recognized by academics as factors that impact buying intention and/or actual purchase (Adam et al., 2022; Cabeza-Ramírez et al., 2022; Kharisma et al., 2022). Trust is particularly vital for customers' purchasing decisions in online markets, because purchasers lack the ability to physically touch or examine things prior to making a purchase (Cabeza-Ramírez et al., 2022). On the other hand, Yang and Li (2023) have the research which has demonstrated the use of emojis may enhance consumer trust, which is in line with (Duffett & Maraule, 2023). The studies have demonstrated that including emojis in brand communication on digital platforms might positively influence the likelihood of young customers making a purchase.

In another study, Duffett and Charles (2024) found trust has a significant positive impact on the purchase intentions of Generation Y and Z. Several studies utilizing emojis in digital marketing communications have revealed a similar correlation between trust and purchase intention (Ma & Wang, 2021). The following hypothesis (H1) is formed based on the prior researches.

H1: Trust has a positive and significant effect on purchase intention.

Emojis, according to McShane's studies, inspire consumers to like and share more tweets with an emoji (engagement), and the impact grows with the rising emoji count (McShane et al., 2021). Similarly, research by Duffett and Maraule indicates that consumer trust and involvement exhibit a notable positive correlation with the application of digital marketing (Duffett & Maraule, 2023). Customers who trust a brand are more likely to interact with the brand such as make reviews on social media, providing feedback and sharing their experiences. Previous studies lead one to create the following hypothesis (H2).

H2: Trust has a positive and significant effect on customer engagement.

Mainly regarded objective and reliable, customer evaluations are a type of electronic word-of-mouth (e-WOM) advertising with mainly suggestions, opinions, and comments from other consumers (Sukaris et al., 2019). Customer reviews may be seen as the word-of-

mouth (WOM) communication made by customers about a product or service in the digital marketplace (Thakur, 2016). Both positive and negative, can make conversation and interaction between customers and brands. This can increase customer engagement and provide an opportunity for brands to build stronger relationships with customers. The studies lead one to create the following hypothesis:

H3: Customer reviews have a positive and significant effect on customer engagement.

Moloi et al. (2022) and Siddiqi et al. (2020) have asserted that customer reviews of goods and services have a substantial impact on consumers' attitudes and actions while making buying decisions. Moreover, based on published data, buyers actively look for ratings for a multitude of reasons (Maslowska et al., 2017). Rathod et al. (2022), in their research on the influence of internet reviews on brand impression and purchase intention, discovered that online reviews significantly shape customer attitudes, intentions, and purchasing behavior. Therefore, the following hypothesis (H4) is formulated:

H4: Customer reviews have a positive effect on purchase intention.

Previous studies on several online platforms have shown that young generations' buying intention is influenced generally by their view of risk (Adam et al., 2022; Cabeza-Ramírez et al., 2022; Rahmi et al. (2022). Additionally, Alrawad et al. (2023) demonstrated that, in connection to e-commerce, future studies should examine other apparent risk variables. Moreover, the studies show that purchasing intention suffers a major and unfavorable influence from risk perception. Product risk turns out to lower buying intention in internet markets (Adam et al., 2022; Cabeza-Ramírez et al., 2022). In line with existing research, Duffett and Charles (2024) observed a negative correlation between purchase intention and product risk, suggesting that Generation Y and Z respondents do not regard product risk concerning Google Shopping Ads (GSA). Therefore, the following hypothesis (H5) is formulated:

H5: Product risk has a negative impact on purchase intention.

Customer engagement in a positive context has been proven to increase purchase intention (Casado-Molina et al., 2022). In line with Duffett and Maraule (2023) study, emojis are frequently employed in digital marketing to improve consumer involvement. Emojis used in digital marketing can increase consumer involvement and young consumers' purchase intention. Positive and continuous engagement with clients helps them to feel appreciated and valuable, which finally motivates them to purchase goods. Therefore, the following hypothesis (H6) is formulated:

H6: Customer engagement has a positive impact on purchase intention.

Conceptual Framework

Based on the literature presented above, this study aims to understand the influence of trust, customer reviews, and product risk on e-commerce transactions that drive consumers' purchase intentions, both directly and indirectly through the attribute of customer engagement. The model of this study can be seen in Figure 1.

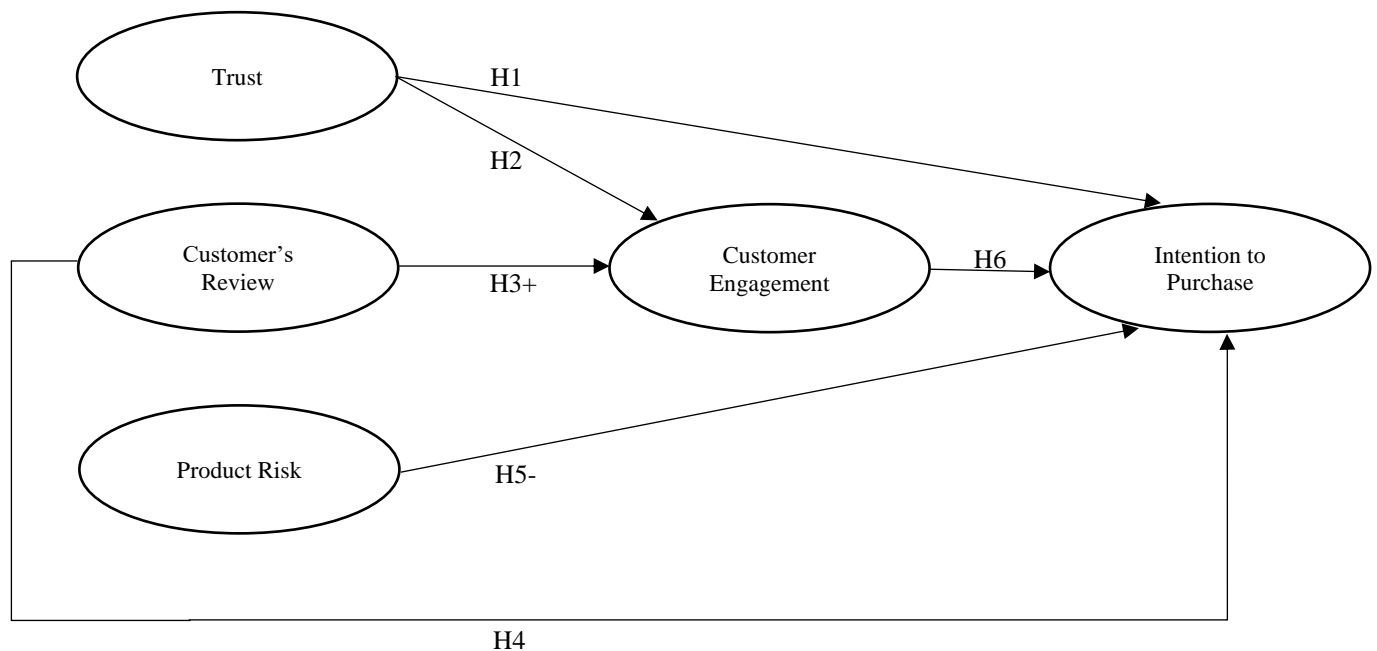


Figure 1. Conceptual Framework

RESEARCH METHOD

This research uses a descriptive quantitative study where the researcher will test hypotheses using survey methods to clarify the relationships between variables. This study uses three types of variables: (1) the dependent variable, in this case, Purchase Intention; (2) independent variables, i.e. Trust, Customer's Review, and Product Risk; and (3) the mediating variable, which is Customer Engagement.

Trust is necessary for long-term consumer and brand relationships (Abid et al., 2020). Meanwhile, online reviews assist customers in making selections about what to buy (Shi & Liao, 2017). Therefore, these two factors are relevant in this study to examine their influence on the Customer Engagement variable. Consequently, this can influence other customers to make purchases. On the other hand, there are risks in purchasing transactions through e-commerce that can negatively affect customers' purchase intentions.

In this study, the sample calculation uses the formula from Hair (2021), which states that the minimum number of samples used is 5 to 10 times the number of items being researched. Therefore, in this study, the sample is calculated using the number of statement indicators on the questionnaire multiplied by 10. With 19 indicators, the minimum sample that must be achieved is 190 respondents. In this study, 221 respondents were involved in using purposive sampling, which is an analysis technique based on specific criteria. The sample criteria in this study are respondents who have an e-commerce platform and actively use it at least once in the last three months of data collecting.

RESULTS AND DISCUSSION

From the processed data, the researcher obtained information regarding the respondents' profiles, which consist of eight demographic details, i.e. gender, age, education, income, occupation, type of e-commerce platform, duration of platform use, and frequency of use in the last 3 months. The respondents comprised 118 males (53.4%) and 103 females (46.6%). The majority of respondents used the Shopee platform (62%), while the minority used the Blibli platform (5%). Furthermore, the majority of respondents have been using the e-commerce application for more than six months (98.6%). The frequency of platform use in the last three months shows that the majority used it more than 10 times (38.9%).

Table 1. Respondents' Profile

Characteristics	Frequency	%
Age		
Gen Z (born between 1997-2007)	23	10.4%
Millenials (born 1981-1996)	186	84.2%
Other	12	5.4%
Education		
High School	12	5.4%
Diploma	9	4.1%
Undergraduate Degree	155	70.1%
Master's Degree	45	20.4%
Income		
< 5 million	22	10.0%
5 - 10 million	68	30.8%
11 - 15 million	37	16.7%
16 - 20 million	26	11.8%
> 20 million	68	30.8%
Occupation		
Civil servant/Military/Police	23	10.4%
Entrepreneur	14	6.3%
Private Employee	77	34.8%
Unemployed	15	6.8%
Other	92	41.6%

According to the findings of the validity test presented in Table 2, all items for each variable have a factor loading greater than 0.4, exceeding the minimum recommended value. Consequently, every sample is deemed legitimate. The reliability test findings indicate that the Cronbach's Alpha values for all variables exceed 0.6. It may be inferred that both variables and all items included in this study possess validity and reliability.

Meanwhile, based on the results of descriptive statistical analysis, it shows that respondents have a positive view of e-commerce platforms. Trust has an average score of 3.972 and Customer Reviews has an average of 4.314, including Product Risk has an average of 3.670. This shows that the level of respondents' trust in e-commerce is quite high, including the presence of customer reviews which have helped respondents quite a bit, although on the other hand there are product risk. Customer Engagement has an average of

3.921 and Purchase Intention has an average of 4.101. This shows that customer involvement on the e-commerce platform and their purchase intention is quite high.

Table 2. Validity, Reliability Testing of Variables and Descriptive Statistics

Indicator	Factor Loading	Conclusion	Cronbach Alpha	Conclusion	Mean	Std Deviation
Trust (Duffett & Maraule, 2023)						
I can rely on the e-commerce platform	0.808	valid	0.863	Reliabel	4.281	0.765
I feel safe with the e-commerce platform	0.859	valid			4.077	0.814
I trust the products available on e-commerce	0.849	valid			3.783	0.852
I feel that I can trust the content and products available on the e-commerce platform	0.851	valid			3.747	0.863
					3.972	
Customer Review (Macheka et al., 2023)						
Customer reviews aid my decision-making process while purchasing on e-commerce platforms.			0.940	Reliabel		
Customer reviews have enhanced my ability to make informed purchasing judgments through e-commerce.	0.948	valid			4.376	0.750
The last time I used customer reviews, it helped me adopt other customers' recommendations	0.939	valid			4.348	0.763
Information from customer reviews increases my knowledge about the product I want to buy	0.902	valid			4.186	0.802
	0.895	valid			4.348	0.751
					4.314	
Product Risk (X. Zhang & Yu, 2020)						
I feel there is a risk of product quality differences in e-commerce	0.868	valid	0.860	Reliabel	3.855	0.947
I feel there is a risk of product utility differences in e-commerce	0.857	valid			3.602	1.029
I feel there are counterfeit products on e-commerce	0.834	valid			3.869	1.060
I feel there are dangerous products on the e-commerce platform	0.804	valid			3.353	1.063
					3.670	
Customer Engagement (Duffett & Maraule, 2023)						
I feel I can interact with products/brands on the e-commerce platform	0.846	valid	0.869	Reliabel	3.837	0.787
I can always give feedback on products on the e-commerce platform	0.829	valid			3.914	0.867
E-commerce effectively influences my engagement with products/brands	0.887	valid			3.905	0.834
I am interested in using products/brands available on e-commerce	0.831	valid			4.027	0.762
					3.921	
Purchase Intention (Macheka et al., 2023)						
I intend to purchase a product on e-commerce	0.884	valid	0.872	Reliabel	4.195	0.722
I intend to continue choosing e-commerce for shopping	0.905	valid			4.023	0.834
If I intend to purchase a product, my strategy involves relying on recommendations or reviewing material from e-commerce platforms.	0.891	valid			4.086	0.755
					4.101	

Model Fit Testing

Model fit testing is conducted before hypothesis testing using the SEM AMOS model. In this study, several modifications were made using modification indices, as illustrated in Figure 2.

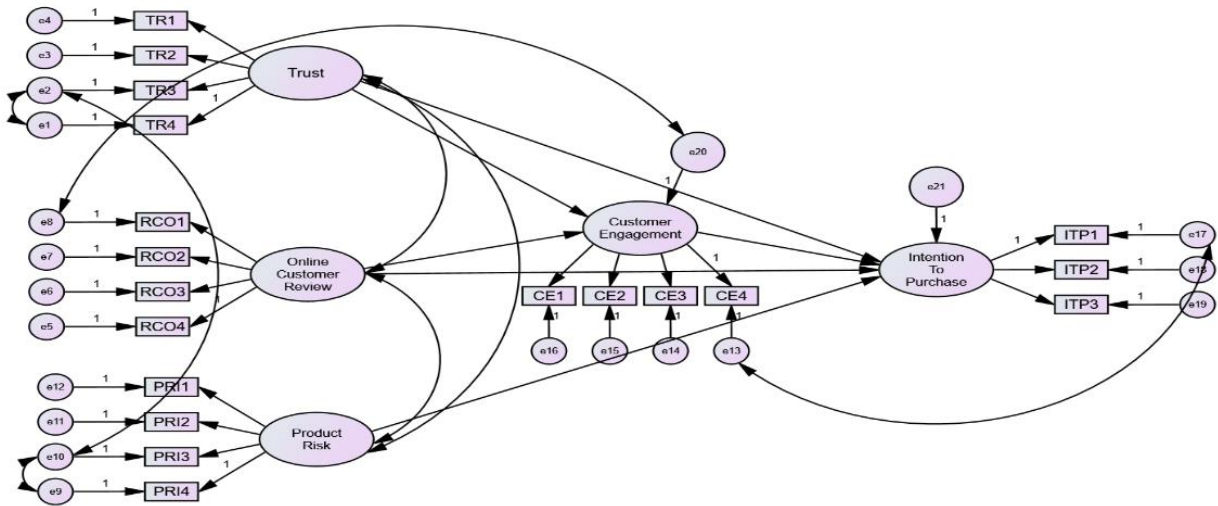


Figure 2. SEM Research Model

Table 3 displays the results of the model fit assessment. The table's information suggests that six of the eight model fit testing criteria conclude that the model is fit namely RMSEA, NFI, IFI, TLI, CFI, and CMIN/DF as they meet the required fit standards. One criterion result in a marginal conclusion, which is GFI, and one criterion results in a poor fit conclusion, which is chi-square. Therefore, hypothesis testing can be conducted.

Table 3. Model Fit Testing Indicators

Type of Measurement	Measurement	Model Fit Determination	Result	Processed Decision
Absolute fit measures	Chi-square	low Chi Square	298,332	
	p-value Chi-Square	$\geq 0,05$	0,000	Poor Fit
	GFI	$\geq 0,90$	0,879	Marginal
	RMSEA	$\leq 0,10$	0,073	Model fit
	NFI	$\geq 0,90$	0,914	Model fit
	IFI	$\geq 0,90$	0,952	Model Fit
	TLI	$\geq 0,90$	0,940	Model Fit
	CFI	$\geq 0,90$	0,952	Model Fit
Parsimonius fit measure	CMIN/DF	Between 1 and 5	2,162	Model fit

Source: Hair (2021).

Hypothesis Testing Results

Table 4 below displays the result of the hypothesis testing.

Table 4. Research Hypothesis Testing

Hn	Hypothesis	Estimate	C.R.	P	Conclusion
H ₁	Trust positively affects Intention to Purchase	0,187	1,512	0.065*	Hypothesis is supported
H ₂	Trust positively affects Customer Engagement	0,840	6,194	0.000**	Hypothesis is supported
H ₃	Customer Review positively affects Customer Engagement	0,124	1,284	0.099*	Hypothesis is supported
H ₄	Customer Review positively affects Intention to Purchase	0,194	2,820	0.002**	Hypothesis is supported
H ₅	Product Risk negatively affects Intention to Purchase	-0,018	-0,456	0.324	Hypothesis is not supported
H ₆	Customer Engagement positively affects Intention to Purchase	0,586	6,808	0.000**	Hypothesis is supported

* $\alpha=10\%$ ** $=\alpha=5\%$

Source: Processed Data.

In the hypothesis 1 test, the coefficient value is 0.187, with a p-value of 0.065, supporting H1. This indicates that increased trust will increase the intention to purchase and vice versa. This means that when e-commerce, including merchants or brands, is reliable, trustworthy, and feels safe to consumers, their intention to buy will be higher. This conclusion aligns with previous studies, which state that the higher the trust provided by the online store to consumers, the higher the consumer's decision to use the marketplace (Anggraeni et al., 2023). This is consistent with previous research linking consumer trust levels very closely to product search and purchase from online stores (Lăzăroiu et al., 2020).

In the hypothesis 2 test, the value of the calculated coefficient is 0.840, and the t-statistic value is 6.194, resulting in a p-value of $0.000 < 0.05$, supporting H2. Therefore, when trust increases, customer engagement will also increase, and vice versa. Consumers who already have trust will feel more involved and have a positive relationship with the existing brand. This is supported by previous research showing a parallel interaction between trust and engagement among Generation Z (M. Zhang et al., 2021). Including what was said by Shaheen et al. (2020) the level of trust greatly influences customer feedback, which in turn has a substantial effect on customer engagement.

In the hypothesis 3 test, the estimated coefficient value is 0.124, and the t-statistic value is 1.284, resulting in a p-value of $0.099 < 0.10$, supporting H3. This indicates that increased customer reviews will increase customer engagement, and vice versa. Customer reviews allow customers to openly and honestly share their experiences as feedback. This research results support Shaheen et al. (2020) which states that to increase customer engagement, trust factors and customer reviews play a very important role.

In the hypothesis 4 test, the estimated coefficient value is 0.194, and the t-statistic value is 2.820, resulting in a p-value of $0.002 < 0.05$, supporting H4. This indicates that increased online customer reviews will increase the intention to purchase and vice versa. Online customer reviews can show the experiences of other customers, increasing consumer trust and driving their buying intentions. Thorough online customer reviews can boost buyers' confidence in their purchase intentions by providing them with a better understanding of the product. This validates other studies that found good internet reviews increase purchase intentions more than negative ones (Hartini et al., 2022).

In the hypothesis 5 test, the coefficient value is -0.018, with a negative t-statistic value of -0.456, resulting in a high p-value of 0.324. Although the coefficient is negative, the high p-value indicates that the effect is not significant, so H5 is not supported. This shows that although there is a product risk in every e-commerce purchase, it does not affect the consumer's buying intention. This aligns with other research findings (Henry et al., 2023), which state that risk perception does not influence the online consumer decision-making process. There is no difference in consumer behavior towards buying intentions in online transactions between high involvement products and low involvement products (Nata & Kurniawan, 2019). Surprisingly, it turns out that product risk does not significantly influence purchasing intentions. Contrast with Anggraeni et al. (2023) that the perception of product risk is something that is always present in online purchasing transactions.

In the hypothesis 6 test, value of the calculated coefficient is 0.586, and the t-statistic value is 6.808, resulting in a p-value of $0.000 < 0.05$, supporting H6. This indicates that increased customer engagement will increase the intention to purchase and vice versa. When customers have a strong enough relationship with a brand, they will become more familiar with the brand and tend to buy its products. This can also build loyalty from customers, so that they will trust more and become loyal customers.

CONCLUSIONS AND RECOMMENDATIONS

This study shows that people have a positive perception of shopping through e-commerce platforms. Online shopping is now reliable and trustworthy, including driving customer engagement. Although there is a possibility of product risk in online shopping, the study's results show it is not significant enough to influence purchase intention. However, online sellers should continue to create product content that reduces perceived product risk and increases trust. One way to do this is by displaying additional original product photos alongside catalog photos available online.

Consumers find online shopping through e-commerce platforms convenient and trustworthy for their transactions. This presents an opportunity for online sellers to increase sales volume. The research results show that online customer reviews greatly help other consumers in increasing purchase intentions and customer engagement. Therefore, online sellers should encourage their customers to provide positive feedback on every purchase, making online customer reviews an indirect promotional tool. Positive comments and high ratings in online customer reviews will make the store more trustworthy. By effectively

overseeing product reviews, online sellers may cultivate trust among their consumers and leverage this feedback to drive improvement.

Limitations of this study include the inability to control respondent's impressions of the existing questionnaire, affecting their answers. For better results, respondents should be guided to understand the research's purpose and objectives. Additionally, since most respondents (84.6%) are millennials, future researchers are expected to continue the research by comparing respondents across generations, such as Generation X and Y.

REFERENCES

- Abid, T., Abid-Dupont, M. A., & Moulins, J. L. (2020). What corporate social responsibility brings to brand management? The two pathways from social responsibility to brand commitment. *Corporate Social Responsibility and Environmental Management*, 27(2), 925–936. <https://doi.org/10.1002/csr.1856>
- Adam, M., Ibrahim, M., Idris, S., Saputra, J., & Putra, T. R. I. (2022). An Investigation of E-Marketing and its Effect on the Consumer Buying Decision During Covid-19 Pandemic in Aceh Province, Indonesia: A Mediating Role of Perceived Risk. *International Journal of Data and Network Science*, 6(1), 115–126. <https://doi.org/10.5267/J.IJDNS.2021.9.016>
- Adi, A. (2024). *5 E-Commerce dengan Pengunjung Terbanyak Sepanjang 2023*. Databoks. <https://databoks.katadata.co.id/datapublish/2024/01/10/5-e-commerce-dengan-pengunjung-terbanyak-sepanjang-2023>
- Alrawad, M., Lutfi, A., Almaiah, M. A., & Elshaer, I. A. (2023). Examining the Influence of Trust and Perceived Risk on Customers Intention to Use NFC Mobile Payment System. *Journal of Open Innovation: Technology, Market, and Complexity*, 9(2). <https://doi.org/10.1016/j.joitmc.2023.100070>
- Alzahrani, J. (2019). The impact of e-commerce adoption on business strategy in Saudi Arabian small and medium enterprises (SMEs). *Review of Economics and Political Science*, 4(1), 73–88. <https://doi.org/10.1108/REPS-10-2018-013>
- Anggraeni, D. A., Setiobudi, A., Teofilus, & Sandy, N. (2023). Analisis Kepercayaan dan Persepsi Risiko Produk terhadap Keputusan Pembelian Online di E-Commerce. *Jurnal Bisnis, Manajemen, Dan Informatika (JBMI)*, 19(3), 160–175. <https://doi.org/10.26487/jbmi.v19i3.1991>
- APJII. (2024). *Jumlah Pengguna Internet Indonesia Tembus 221 Juta Orang*. <https://apjii.or.id/berita/d/apjii-jumlah-pengguna-internet-indonesia-tembus-221-juta-orang>
- Ariffin, S. K., Mohan, T., & Goh, Y. N. (2018). Influence of Consumers' Perceived Risk on Consumers' Online Purchase Intention. *Journal of Research in Interactive Marketing*, 12(3), 309–327. <https://doi.org/10.1108/JRIM-11-2017-0100>
- Behnam, M., Anagnostopoulos, C., Byers, T., & Papadimitriou, D. A. (2023). The impact of perceived corporate social responsibility on value-in-use through customer engagement in non-profit sports clubs: the moderating role of co-production. *European Sport Management Quarterly*, 23(3), 789–810. <https://doi.org/10.1080/16184742.2021.1929375>

- BPS. (2023). *Indeks Pembangunan Teknologi Informasi dan Komunikasi 2022*. Badan Pusat Statistik.
- Cabeza-Ramírez, L. J., Fuentes-García, F. J., Cano-Vicente, M. C., & González-Mohino, M. (2022). How Generation X and Millennials Perceive Influencers' Recommendations: Perceived Trustworthiness, Product Involvement, and Perceived Risk. *Journal of Theoretical and Applied Electronic Commerce Research*, 17(4), 1431–1449. <https://doi.org/10.3390/jtaer17040072>
- Carlson, J., Rahman, M., Voola, R., & De Vries, N. (2018). Customer engagement behaviours in social media: capturing innovation opportunities. *Journal of Services Marketing*, 32(1), 83–94. <https://doi.org/10.1108/JSM-02-2017-0059>
- Casado-Molina, A. M., Rojas-de Gracia, M. M., Alarcón-Urbistondo, P., & Romero-Charneco, M. (2022). Exploring the Opportunities of the Emojis in Brand Communication: The Case of the Beer Industry. *International Journal of Business Communication*, 59(3), 315–333. <https://doi.org/10.1177/2329488419832964>
- Davis, F.D. (1989). *Perceived usefulness, perceived ease of use, and user acceptance of information technology, graduate school of business administration*. MIS Quarterly.
- Dianari, G. (2018). The Impact of E-Commerce on Indonesia Economic Growth. *Bina Ekonomi*, 22(1), 43–62.
- Direktorat Jenderal Bea dan Cukai. (2023). Modus Penipuan Online Shop Kian Marak, Ini Cara Pencegahannya. <https://Www.Beacukai.Go.Id/Berita/Modus-Penipuan-Online-Shop-Kian-Marak-Ini-Cara-Pencegahannya.Html>.
- Duffett, R. G., & Charles, J. R. (2024). Assessing antecedents of Google shopping ads intention to purchase: a multigroup analysis of generation Y and Z. *Young Consumers*, 26(7), 1–21. <https://doi.org/10.1108/YC-12-2023-1923>
- Duffett, R. G., & Maraule, M. (2023). Customer engagement and intention to purchase attitudes of generation Z consumers toward emojis in digital marketing communications. *Young Consumers*, 25(5), 607–624. <https://doi.org/10.1108/YC-08-2023-1817>
- Ebrahim, R. S. (2020). The Role of Trust in Understanding the Impact of Social Media Marketing on Brand Equity and Brand Loyalty. *Journal of Relationship Marketing*, 19(4), 287–308. <https://doi.org/10.1080/15332667.2019.1705742>
- Glaveli, N. (2020). Corporate Social Responsibility Toward Stakeholders and Customer Loyalty: Investigating the Roles of Trust and Customer Identification with the Company. *Social Responsibility Journal*, 17(3), 367–383. <https://doi.org/10.1108/SRJ-07-2019-0257>
- Hadi, R. M., Februadi, A. C., & Gunawan, A. I. (2021). Analisis Persepsi Risiko dan Kepercayaan Konsumen dalam Belanja Online. *Prosiding The 12th Industrial Research Workshop and National Seminar*, Bandung, 4–5 Agustus.
- Hair, J. F. J. (2021). *Essentials of Marketing Reseach* (fifth ed.). McGraw-Hill.
- Hartini, S., Kurniawati, M., Sayyida, S., & Ihwanudin, M. (2022). Customer Review: Impact On Choice Confidence, Product Attitude, and Purchase Intention. *Journal of Positive School Psychology*, 6(8), 5977–5992.

- Henry, K., Adiwijaya, M., & Subagio, H. (2023). Pengaruh Perceived Risk terhadap Purchase Intention dengan Mediasi Perceived Value dan Customer Attitude pada Pelanggan Online Shopping melalui Media Sosial Facebook di Surabaya. *Petra Business & Management Review*, 3(2), 62–83.
- Kementerian Perdagangan RI. (2024). Kemendag Ramal Transaksi E-Commerce di RI Tembus Rp533 Triliun. <https://www.kemendag.go.id/Berita/Pojok-Media/Kemendag-Ramal-Transaksi-e-Commerce-Di-Ri-Tembus-Rp533-Triliun>.
- Khan, S., Rashid, A., Rasheed, R., & Amirah, N. A. (2021). Designing a Knowledge-Based System (KBS) to Study Consumer Purchase Intention: The Impact of Digital Influencers in Pakistan. *Kybernetes*, 52(5), 1720–1744. <https://doi.org/10.1108/K-06-2021-0497>
- Kharisma, H. P., Adiprasetya, K. M., Djohan, S. F., & Gunadi, W. (2022). Factors Influencing Online Video Advertising that Have an Impact on Brand Awareness, Brand Image, and Purchase Intention. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 5(2), 9171–9183. <https://doi.org/10.33258/birci.v5i2.4705>
- Kim, J., & Lennon, S. J. (2013). Effects of reputation and website quality on online consumers' emotion, perceived risk and purchase intention: Based on the stimulus-organism-response model. *Journal of Research in Interactive Marketing*, 7(1), 33–56. <https://doi.org/10.1108/17505931311316734>
- Lăzăroiu, G., Neguriță, O., Grecu, I., Grecu, G., & Mitran, P. C. (2020). Consumers' Decision-Making Process on Social Commerce Platforms: Online Trust, Perceived Risk, and Purchase Intentions. *Frontiers in Psychology*, 11(May), 1–7. <https://doi.org/10.3389/fpsyg.2020.00890>
- Lee, M., & Lee, H. H. (2022). Do Parasocial Interactions and Vicarious Experiences in the Beauty YouTube Channels Promote Consumer Purchase Intention? *International Journal of Consumer Studies*, 46(1), 235–248. <https://doi.org/10.1111/ijcs.12667>
- Lu, J., & Bai, H. (2021). Information Usefulness and AttitudeFormation a Double-Dependent Variable Model (DDV) to Examine the Impactsof Online Reviews on Consumers. *Journal of Organizational and End User Computing*, 33(6), 1–22. <https://doi.org/10.4018/joeuc.20211101.0a29>
- Ma, R., & Wang, W. (2021). Smile or Pity? Examine the Impact of Emoticon Valence on Customer Satisfaction and Purchase Intention. *Journal of Business Research*, 134, 443–456. <https://doi.org/10.1016/j.jbusres.2021.05.057>
- Macheka, T., Quaye, E. S., & Ligaraba, N. (2023). The effect of online customer reviews and celebrity endorsement on young female consumers ' purchase intentions. *Young Consumers*, 25(4), 463–482. <https://doi.org/10.1108/YC-05-2023-1749>
- Mariño-Romero, J. M., Hernández-Mogollón, J. M., Campón-Cerro, A. M., & Folgado-Fernández, J. A. (2020). Corporate Social Responsibility in Hotels: A Proposal of a Measurement of its Performance Through Marketing Variables. *Sustainability (Switzerland)*, 12(7), 2961. <https://doi.org/10.3390/su12072961>
- Marino, V., & Lo Presti, L. (2019). Stay in touch! New insights into end-user attitudes towards engagement platforms. *Journal of Consumer Marketing*, 36(6), 772–783.

- <https://doi.org/10.1108/JCM-05-2018-2692>
- Maslowaska, E., Malthouse, E. C., & Bernritter, S. F. (2017). Too Good to be True: The Role of Online Reviews' Features in Probability to Buy. *International Journal of Advertising*, 36(1), 142–163. <https://doi.org/10.1080/02650487.2016.1195622>
- McShane, L., Pancer, E., Poole, M., & Deng, Q. (2021). Emoji, Playfulness, and Brand Engagement on Twitter. *Journal of Interactive Marketing*, 53(3), 96–110. <https://doi.org/10.1016/j.intmar.2020.06.002>
- Moloi, M., Quaye, E. S., & Saini, Y. K. (2022). Evaluating Key Antecedents and Consequences of the Perceived Helpfulness of Online Consumer Reviews: A South African Study. *Electronic Commerce Research and Applications*, 54, 101172. <https://doi.org/10.1016/j.elerap.2022.101172>
- Murphy, R. (2020). *Local Consumer Review Survey*. BrightLocal.
- Nata, J. H., & Kurniawan, A. (2019). Mobile Display Advertising: Perilaku Niat Pembelian Konsumen pada High Involvement vs Low Involvement Product. *Esensi: Jurnal Bisnis dan Manajemen*, 9(2), 209–224. <https://doi.org/10.15408/ess.v9i2.9942>
- Organization for Economic Co-Operation and Development. (2009). *Understanding E-Commerce*. <https://www.oecd-ilibrary.org/Sites/1885800a-En/Index.Html?ItemId=/Content/Component/1885800a-En>.
- Orús, C., Gurrea, R., & Ibáñez-Sánchez, S. (2019). The Impact of Consumer's Positive Online Recommendations on the Omnichannel Webrooming Experience. *Spanish Journal of Marketing - ESIC*, 23(3). <https://doi.org/10.1108/SJME-08-2019-0067>
- Osei-Frimpong, K., Donkor, G., & Owusu-Frimpong, N. (2019). The Impact of Celebrity Endorsement on Consumer Purchase Intention: An Emerging Market Perspective. *Journal of Marketing Theory and Practice*, 27(1), 103–121. <https://doi.org/10.1080/10696679.2018.1534070>
- Qalati, S. A., Vela, E. G., Li, W., Dakhan, S. A., Hong Thuy, T. T., & Merani, S. H. (2021). Effects of Perceived Service Quality, Website Quality, and Reputation on Purchase Intention: The Mediating and Moderating Roles of Trust and Perceived Risk in Online Shopping. *Cogent Business and Management*, 8(1). <https://doi.org/10.1080/23311975.2020.1869363>
- Rahayu, A., Utama, D. H., & Novianty, R. (2021). The Impact of Online Customer Reviews on Purchase Intention in Online Marketplace. *Proceedings of the 5th Global Conference on Business, Management and Entrepreneurship (GCBME 2020)*, 187(Gcbme 2020), 471–477. <https://doi.org/10.2991/aebmr.k.210831.094>
- Rahmi, S., Ilyas, G. B., Tamsah, H., & Munir, A. R. (2022). Perceived Risk and Its Role in the Influence of Brand Awareness on Purchase Intention: Study of Shopee Users. *Jurnal Siasat Bisnis*, 26(1), 97–109. <https://doi.org/10.20885/jsb.vol26.iss1.art7>
- Rathod, I., Sharma, R., & Thakkar, A. (2022). A Study on Impact of Online Reviews on Brand Perception & Purchase Intention. *International Research Journal of Modernization in Engineering Technology and Science*, 4(3), 90–100.
- Santini, F. de O., Ladeira, W. J., Pinto, D. C., Herter, M. M., Sampaio, C. H., & Babin, B. J. (2020). Customer Engagement in Social Media: A Framework and Meta-analysis. *Journal of the Academy of Marketing Science*, 48(6), 1211–1228.

- <https://doi.org/10.1007/s11747-020-00731-5>
- Shaheen, M., Zeba, F., Chatterjee, N., & Krishnankutty, R. (2020). Engaging customers through credible and useful reviews: the role of online trust. *Young Consumers*, 21(2), 137–153. <https://doi.org/10.1108/YC-01-2019-0943>
- Shi, X., & Liao, Z. (2017). Online Consumer Review and Group-Buying Participation: The Mediating Effects of Consumer Beliefs. *Telematics and Informatics*, 34(5), 605–617. <https://doi.org/10.1016/j.tele.2016.12.001>
- Shihab, M. R., & Putri, A. P. (2019). Negative Online Reviews of Popular Products: Understanding the Effects of Review Proportion and Quality on Consumer's Attitude and Intention to Buy. *Electronic Commerce Research*, 19(1), 159–187. <https://doi.org/10.1007/s10660-018-9294-y>
- Shin, K. S., Sean, Amenuvor, F. E., Basilisco, R., & Owusu-Antwi, K. (2019). Brand Trust and Brand Loyalty: A Moderation and Mediation Perspective. *Current Journal of Applied Science and Technology*, 38(4), 1–17. <https://doi.org/10.9734/cjast/2019/v38i430376>
- Siddiqi, U. I., Sun, J., & Akhtar, N. (2020). The Role of Conflicting Online Reviews in Consumers' Attitude Ambivalence. *Service Industries Journal*, 40(Nos 13/14), 1003–1030. <https://doi.org/10.1080/02642069.2019.1684905>
- Sukaris, S., Hartini, S., & Mardhiyah, D. (2019). Increasing Electronic Word-of-Mouth Activities Through Self-Congruity and Tourist Values. *International Journal of Innovation, Creativity and Change*, 9(10), 162–183.
- Thakur, R. (2016). Understanding Customer Engagement and Loyalty: A Case of Mobile Devices for Shopping. *Journal of Retailing and Consumer Services*, 32, 151–163. <https://doi.org/10.1016/j.jretconser.2016.06.004>
- Unnava, V., & Aravindakshan, A. (2021). How Does Consumer Engagement Evolve When Brands Post Across Multiple Social Media? *Journal of the Academy of Marketing Science*, 49(5), 864–881. <https://doi.org/10.1007/s11747-021-00785-z>
- Winell, E., Nilsson, J., & Lundberg, E. (2023). Customer engagement behaviors on physical and virtual engagement platforms. *Journal of Services Marketing*, 37(10), 35–50. <https://doi.org/10.1108/JSM-03-2023-0084>
- Wu, P. F. (2013). In Search of Negativity Bias: An Empirical Study of Perceived Helpfulness of Online Reviews. *Psychology and Marketing*, 30(11), 971–984. <https://doi.org/10.1002/mar.20660>
- Yang, Y., & Li, H. (2023). Keyword Decisions in Sponsored Search Advertising: A Literature Review and Research Agenda. *Information Processing and Management*, 60(1), 103142. <https://doi.org/10.1016/j.ipm.2022.103142>
- Zhang, M., Ding, S., Liu, Y., Li, H., Zhu, Y., & Qin, C. (2021). Influence of Emojis on Online Trust Among College Students. *Frontiers in Psychology*, 12(November). <https://doi.org/10.3389/fpsyg.2021.747925>
- Zhang, X., & Yu, X. (2020). The Impact of Perceived Risk on Consumers' Cross-Platform Buying Behavior. *Frontiers in Psychology*, 11(October), 1–13. <https://doi.org/10.3389/fpsyg.2020.592246>