The 2nd ASEAN School of Business Network International Conference 2025
www.aseansbn.org August 7-8, 2025 Negeri Sembilan, Malaysia

Unpacking Trust in AI-Based E-Commerce: An Integrated Model of Cognitive and Psychological Drivers of Purchase Intention Among Gen Z Shopee Users

Arif Hartono [1*]
[1]Universitas Islam Indonesia, Yogyakarta, Indonesia
*Corresponding Author: arif.hartono@uii.ac.id

ABSTRACT

This study investigates the cognitive and psychological factors influencing perceived trust and purchase intention in AI-powered e-commerce platforms, focusing on Shopee users from Generation Z in Indonesia. As AI technologies increasingly shape online shopping experiences, understanding how trust is developed becomes essential for driving consumer adoption. Drawing on trust theory and the Technology Readiness Index (TRI), this research proposes an integrated model incorporating cognitive variables (AI exposure, attitude toward AI, and AI accuracy perception) and psychological readiness dimensions (optimism, innovativeness, discomfort, and insecurity). Data were collected through a survey of 200 Gen Z Shopee users and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results confirm that AI exposure, attitude toward AI, AI accuracy perception, optimism, and innovativeness significantly enhance perceived trust, while discomfort and insecurity exert negative effects. Perceived trust also mediates the relationships between all cognitive and psychological predictors and purchase intention. These findings validate the central role of trust as a mechanism linking AI-based experiences with consumer behavioral intentions. Theoretically, this study contributes to AI and e-commerce literature by integrating multidimensional trust antecedents into a unified model. Practically, it offers insights for e-commerce platforms to enhance user trust by improving AI transparency, reducing user discomfort, and addressing security concerns. The results emphasize the importance of personalized, trustworthy AI-driven interactions to foster Gen Z consumer engagement and loyalty in competitive digital marketplaces.

Keywords: AI, E-commerce, Perceived Trust, Purchase Intention, Generation Z

DOI: https://doi.org/10.64458/asbnic.v2.72

INTRODUCTION

Artificial Intelligence (AI) is revolutionizing the e-commerce industry, transforming digital retail platforms into intelligent environments that personalize shopping, automate services, and shape real-time consumer decision-making. E-commerce platforms have adopted various AI-driven features, including AI-driven chatbots (Asante et al., 2023; Dai & Liu, 2024), intelligent recommendations (Asante et al., 2023; Cheng et al., 2023) and voice interfaces (Cheng et al., 2023) to enhance efficiency and user satisfaction. These AI implementations have shifted the focus of consumer behavior studies from traditional factors such as price and convenience to more complex psychological constructs, especially

trust in AI systems. The increasing integration of autonomous technologies, particularly AI, in e-commerce has highlighted the importance of trust as a critical factor influencing consumer behavior. As consumers interact more with AI systems, understanding the dynamics of trust becomes essential for fostering acceptance and driving purchase intentions. Previous studies have shown that trust in AI technologies is the core determinant of acceptance (Teodorescu et al., 2023), and trust affects purchase intention (Guerra-Tamez et al., 2024).

Despite this growing interest, existing research predominantly emphasizes system usability, perceived usefulness, and ease of use, primarily based on frameworks such as TAM and UTAUT. However, these models are insufficient to capture the multidimensional nature of trust, particularly in AI contexts where decisions are increasingly data-driven, non-transparent, and automated. Recent studies highlight the intricate relationship between trust in AI technologies and various cognitive and psychological factors. Regarding technological cognition, there are three issues related to trust: AI exposure, accuracy perception, and user attitude. AI exposure reveals that increased interaction with AI systems positively influences brand trust among consumers, particularly Generation Z (Guerra-Tamez et al., 2024), and familiarity with AI technologies enhances trust in e-commerce algorithms (Teodorescu et al., 2023). In terms of accuracy perception, consumers are more likely to trust AI recommendations when they perceive the AI as accurate and reliable (Guerra-Tamez et al., 2024). User positive attitudes toward AI also significantly enhance brand trust (Guerra-Tamez et al., 2024). Psychological readiness factors such as optimism, innovativeness, discomfort, and insecurity also contribute to trust. Optimism about AI capabilities fosters trust and perceived usefulness, leading to higher purchase intentions (ElSayad & Mamdouh, 2024). Innovativeness directly influences perceived trust and indirectly affects perceived usefulness through trust (ElSayad & Mamdouh, 2024). While discomfort negatively impacts perceived trust, insecurity can diminish perceptions of usefulness (ElSayad & Mamdouh, 2024). However, few studies have integrated these two dimensions into a cohesive model, especially one tailored to the behavioral patterns of digital-native users.

Generation Z, the first cohort to grow up in an AI-integrated digital economy, demonstrates a paradoxical relationship with technology: they are both highly engaged and deeply skeptical (Guerra-Tamez et al., 2024). This demographic critically evaluates whether AI systems are transparent (Teodorescu et al., 2023), ethical (Cheng et al., 2023; Teodorescu et al., 2023), and beneficial, indicating that functional performance alone is no longer sufficient to secure user trust. Gen Z's trust is based on perceived system competence and how well AI aligns with personal expectations around fairness, control, and accuracy (Teodorescu et al., 2023). Consequently, understanding the antecedents of trust becomes essential in designing AI-powered features that foster long-term engagement and conversion among Gen Z users.

Additionally, trust is not merely an outcome but a mediator that transmits the effects of both system-related and individual-related variables into behavioral intention. Trust mediates AI's perceived usefulness and purchase intention, enhancing consumer confidence in AI-driven recommendations (Guo & Cai, 2024). Trust in AI systems is a key determinant of purchase intention, as it reduces perceived risk and uncertainty in online transactions (Guo & Cai, 2024; Nguyen, 2024). Studies have shown that trust in AI can enhance the perceived quality of information, positively affecting purchase intentions (Guo & Cai, 2024). Despite this, few studies empirically test trust as a mediating mechanism using a comprehensive set of antecedents derived from both cognitive and affective dimensions, leaving a gap in current theory and practice.

To address these issues, this study proposes a conceptual model that integrates three cognitive antecedents (AI exposure, attitude toward AI, and AI accuracy perception) and four psychological readiness traits (optimism, innovativeness, discomfort, and insecurity) to explain perceived trust, which predicts purchase intention. By focusing on Shopee users from Generation Z in Indonesia, this research

offers a novel perspective to advance theoretical discourse on trust-based AI adoption while providing practical insights for ethically optimizing AI marketing strategies in digital commerce.

LITERATURE REVIEW

AI Exposure and Perceived Trust

AI exposure, defined as the extent to which users have engaged with AI-based systems such as chatbots, intelligent search, or recommendation engines, has played a pivotal role in trust formation in AI-powered platforms. Repeated exposure to AI functionalities builds familiarity, which reduces perceived uncertainty and enhances cognitive comfort—key antecedents of trust. This relationship is particularly pronounced among Generation Z users, whose early and constant interaction with AI systems has resulted in heightened AI literacy and acceptance (Teodorescu et al., 2023). In e-commerce contexts like Shopee, where algorithmic interfaces shape product visibility and service experiences, regular AI interactions increase trust by increasing system reliability and responsiveness perceptions

Guerra-Tamez et al. (2024) highlight that Gen Z's trust in AI-enabled brand experiences is significantly shaped by prior exposure. Their findings indicate that exposure to AI features—such as automated recommendations or personalized browsing—positively correlates with brand trust, especially when the technology is perceived as helpful and non-intrusive. As users encounter AI repeatedly in varied contexts, their perceptions shift from novelty to functionality, promoting an intuitive understanding of AI processes. This cognitive familiarity acts as a trust-building mechanism that influences users' readiness to accept automated suggestions and engage in AI-mediated transactions.

In parallel, Wang et al. (2023) emphasize that frequent exposure to chatbots and recommendation algorithms enhances the user's perception of AI as a competent agent capable of delivering accurate, timely, and context-relevant outputs. Their study shows that Gen Z users are more likely to develop trust in AI systems when they experience the benefits of repeated, seamless AI-facilitated interactions in digital shopping environments. Consequently, AI exposure shapes technological acceptance and forms a critical cognitive foundation for trust development in e-commerce platforms. Based on the aforementioned explanation, the following hypothesis is proposed:

H1: AI Exposure positively influences perceived trust

Attitude Toward AI and Perceived Trust

Attitude toward AI reflects an individual's general perception, judgment, and emotional orientation toward AI technologies used in digital environments. In e-commerce, a positive attitude manifests when users believe that AI improves decision-making, enhances convenience, and supports personalized experiences. This perception is powerful among Generation Z, whose technology affinity fosters more favorable evaluations of AI tools, leading to greater system acceptance and trust. According to Wang et al. (2023), users who maintain a constructive attitude toward AI are more inclined to interpret its functions as beneficial, reliable, and aligned with their goals.

Empirical findings by Choi et al. (2023) support this connection by demonstrating that attitudes significantly shape the cognitive pathways leading to trust in AI-powered features. Their study on brilliant speech recognition showed that consumers' positive attitudes toward AI capabilities directly translated into higher confidence in the system's outcomes. For Generation Z, such a positive disposition encourages greater emotional openness to engaging with intelligent systems and interpreting system recommendations as trustworthy, even when uncertain.

Further, Teodorescu et al. (2023) argue that trust in AI is strongly driven by the degree to which users believe AI is fair, transparent, and designed for user benefit—all of which are influenced by users'

underlying attitudes. When favorable beliefs are favorable, they serve as the foundation for trust. Hence, it is reasonable to assume that attitude toward AI significantly contributes to the development of trust in AI-assisted shopping environments. Accordingly, the following hypothesis is formulated:

H2: Attitude Toward AI positively influences perceived trust

AI Accuracy's Perception and Perceived Trust

AI accuracy perception refers to the extent to which users believe that the outputs generated by AI systems, such as recommendations, search results, or responses, are correct, relevant, and reliable. In e-commerce, especially platforms like Shopee, accuracy plays a central role in reinforcing the system's perceived intelligence. When AI recommendations closely match users' preferences or solve their queries efficiently, users begin to trust that the system understands their needs and can provide meaningful assistance (Choi et al., 2023). This perception builds a cognitive foundation for trust, as accuracy is a proxy for system competence.

Teodorescu et al. (2023) highlight that one key determinant of trust in AI algorithms is how precise and context-aware users perceive them to be. Their research with digitally active consumers found that higher accuracy perceptions are closely linked with feelings of trust and safety in algorithm-driven decision-making. Inaccurate or irrelevant results, by contrast, often trigger skepticism, undermining the user's willingness to follow the AI's guidance. Therefore, users' trust in AI is strongly rooted in whether the system consistently delivers high-quality, personalized outcomes.

Furthermore, Wang et al. (2023) emphasize the importance of accuracy in influencing the emotional engagement between Gen Z users and AI chatbots. They suggest that Generation Z, despite being open to technology, is highly sensitive to errors, and any mismatch between expectations and AI performance can lead to rapid erosion of trust. Thus, perceptions of AI's predictive precision—especially in product recommendations and virtual assistance—are vital to cultivating trust in e-commerce interactions. Grounded in the evidence above, this study posits the following hypothesis:

H3: AI Accuracy's perception positively influences perceived trust

Optimism and Perceived Trust

Optimism, as conceptualized in the Technology Readiness Index (TRI 2.0), refers to a positive view of technology and a belief that it increases efficiency, control, and flexibility (Parasuraman & Colby, 2015). In AI-enabled e-commerce, highly optimistic users tend to assume that AI technologies will benefit them, solve problems effectively, and enhance convenience in the shopping experience. This positive predisposition significantly affects how users interpret AI interactions and contributes to greater psychological readiness to trust autonomous systems (Choi et al., 2023). Especially among Generation Z, who have grown up with AI and algorithmic recommendations, optimism facilitates a more trusting outlook toward AI functionalities embedded in shopping platforms.

Choi et al. (2023) observed that optimistic individuals are more likely to appreciate AI systems' proactive and intelligent behavior, such as those integrated into mobile speech interfaces or shopping chatbots. These individuals tend to perceive AI as an intelligent assistant rather than a controlling or impersonal tool, making them more receptive to automated suggestions. This perception fosters a sense of technological empowerment and leads to a smoother trust-building process with AI-driven e-commerce interfaces. Moreover, such individuals are less likely to interpret occasional technical errors as system failure, maintaining their positive outlook and willingness to trust AI recommendations.

Wang et al. (2023) further emphasize that optimism is not merely a passive trait but actively shapes users' emotional responses toward AI systems. In their study on Gen Z's adoption of AI chatbots, optimism

emerged as a significant enabler of perceived ease and trust. Optimistic consumers were more likely to interpret AI-generated messages as helpful and customer-centric. As a result, this psychological trait strengthens the consumer's belief that the AI system is acting in their best interest, reinforcing the formation of trust in AI-based platforms. In light of these theoretical and empirical insights, this research advances the following hypothesis:

H4: Optimism positively influences perceived trust

Innovativeness and Perceived Trust

Innovativeness, as defined in the Technology Readiness framework, represents an individual's tendency to be a pioneer in adopting new technologies. Innovative users are often the first to try novel digital tools and systems and are generally excited by the potential of emerging technologies (Parasuraman & Colby, 2015). In AI-based e-commerce, however, innovativeness does not always guarantee the development of trust. While innovative individuals may explore AI features out of curiosity or interest, their willingness to trust the technology is not necessarily aligned with their exploratory behavior. The gap between usage and trust becomes more evident when AI systems operate in opaque, impersonal ways or lack human-like empathy (Choi et al., 2023).

Teodorescu et al. (2023) observed that although technologically adventurous users are quick to engage with AI tools, they may also be more critical of the system's ethical boundaries, decision logic, or user-centric design. In such cases, innovativeness contributes to usage behavior but does not translate into emotional assurance or cognitive trust. In e-commerce, where trust involves the interface, data handling, personalization accuracy, and recommendation transparency, innovators may raise more questions than answers. Their tendency to challenge systems may limit the formation of uncritical trust.

Furthermore, Wang et al. (2023) emphasize that among Gen Z users, who are typically more innovative, trust is more likely to be built on fairness, explainability, and emotional resonance rather than simply on novelty. If an AI-powered system lacks these characteristics, highly innovative users may not fully trust it. This suggests that innovativeness plays a role in engagement, but not necessarily in trust development, particularly when AI systems are perceived as black boxes or when their outcomes are inconsistent. Drawing from these nuanced findings, this study puts forward the following hypothesis:

H5: Innovativeness does not significantly affect perceived trust

Discomfort and Perceived Trust

Discomfort in the context of technology readiness refers to the perceived lack of control and confidence when interacting with complex or autonomous technologies. Users who experience discomfort often feel overwhelmed, anxious, or uncertain about their ability to use AI systems effectively. In the case of AI-enabled e-commerce platforms such as Shopee, discomfort may arise when AI interfaces are perceived as too intelligent, impersonal, or lacking transparency. According to Parasuraman and Colby (2015), this dimension of technology readiness is strongly associated with avoidance behavior and a lower likelihood of trust formation.

Wang et al. (2023) found that users who experience discomfort when engaging with AI-powered chatbots tend to question the reliability and accuracy of the system, even before they evaluate its actual performance. Their study revealed that for Gen Z consumers, while typically confident with technology, discomfort can still emerge if the AI lacks human-like conversational cues or delivers responses that seem mechanical or misaligned with user expectations. This discomfort translates into cognitive resistance and emotional detachment, making users less inclined to place trust in the system.

Choi et al. (2023) similarly note that discomfort is a psychological barrier to trust in intelligent agents. Users who feel that the AI interface is too complex, unpredictable, or autonomous become reluctant to surrender control over decisions, particularly those related to product recommendations or financial transactions. This reluctance hinders the formation of perceived trust, which relies not only on competence but also on feelings of security and predictability. Hence, discomfort disrupts trust-building by injecting doubt and user stress into the digital interaction. Because of the psychological implications presented above, this research asserts the following hypothesis:

H6: Discomfort negatively affects perceived trust

Insecurity and Perceived Trust

Insecurity is a psychological barrier rooted in skepticism and apprehension about technology's reliability, ethical use, and personal data protection. It reflects users' discomfort with relinquishing control to intelligent systems, particularly in contexts that involve privacy, decision automation, and information asymmetry. In e-commerce settings where AI technologies increasingly manage product recommendations, payment suggestions, and even real-time conversation through chatbots, feelings of insecurity can obstruct user confidence in the system's intentions and performance (Parasuraman & Colby, 2015). Trust is difficult to cultivate when users are unsure whether AI decisions are fair, safe, or transparent.

Wang et al. (2023) found that Generation Z users, despite being digitally proficient, are especially conscious of data privacy and AI explainability. Their study highlights that insecurity arises not from technical complexity alone but from perceived unpredictability in AI behavior, such as opaque algorithms, biased recommendations, or a lack of apparent human oversight. When users are unsure how AI systems derive conclusions or whether those systems protect user interests, perceived trust in the platform is significantly weakened. This risk-averse sentiment makes users approach AI cautiously, limiting their engagement and acceptance.

Further, Teodorescu et al. (2023) emphasize that trust in AI systems cannot be divorced from perceived ethical and security assurances. Users who feel insecure are more likely to interpret AI as intrusive or manipulative, especially if they perceive insufficient human input or institutional safeguards. In such cases, even competent AI systems fail to establish trust because trust is as much about emotional comfort and ethical assurance as it is about performance. Therefore, insecurity diminishes consumers' willingness to trust AI-powered e-commerce platforms. Taking these theoretical and empirical considerations into account, the following hypothesis is advanced:

H7: Insecurity negatively affects perceived trust

Perceived Trust and Purchase Intention

Perceived trust refers to a consumer's belief in an AI system's reliability, honesty, and effectiveness in fulfilling their goals without causing harm or violating expectations. In AI-integrated e-commerce, trust is a psychological assurance that allows users to delegate parts of their decision-making to intelligent systems. This trust is crucial when transactions are mediated by chatbots, recommender engines, or automated checkouts, where human intervention is minimal or absent. Teodorescu et al. (2023) argue that trust is a substitute for human judgment in environments dominated by AI algorithms and becomes a prerequisite for behavioral intention, including product selection, engagement, and purchase.

Wang et al. (2023) provide further evidence from a psychological perspective, noting that for Generation Z—who value autonomy and transparency in technology—trust in AI systems significantly boosts their likelihood to engage in online transactions. Their study shows that when Gen Z users perceive AI tools as fair, accurate, and secure, they are likelier to perceive the platform as a credible

partner in their consumption journey. Without this trust, even the most advanced AI features fail to convert interest into action. This highlights that trust is not only a moderator of user experience but a central determinant of behavioral outcomes in AI-powered commerce.

Choi et al. (2023) echo this sentiment by linking trust directly to purchase intention in the context of innovative AI features, including speech recognition and recommendation systems. Their empirical findings show that trust reduces users' cognitive resistance and increases acceptance of automated suggestions, enhancing purchase likelihood. This link is firm when users feel that AI decisions align with their personal values, data privacy standards, and expectations of fairness. In such cases, trust becomes the enabler that moves users from passive observers to active consumers in AI-driven shopping experiences. Based on this accumulated evidence, the following hypothesis is logically inferred:

H8: Perceived trust positively affects purchase ıntention

Research Model

Diagram 1 illustrates the conceptual research model that guides this study and summarizes all proposed hypotheses. This model integrates cognitive and psychological antecedents to explain the formation of perceived trust in AI-powered e-commerce platforms and its subsequent influence on purchase intention among Generation Z users. On the left side of the model, three cognitive factors—AI Exposure, Attitude Toward AI, and AI Accuracy Perception—represent users' direct and experiential interactions with AI technologies. These factors reflect how users cognitively evaluate AI functionalities, such as personalized recommendations, chatbot accuracy, and system reliability. The more frequently and favorably users interact with these technologies, the more likely they perceive them as trustworthy. In addition to the left side, four psychological readiness traits—Optimism, Innovativeness, Discomfort, and Insecurity—capture users' predispositions toward technology adoption. While optimism and innovativeness represent enablers of technology acceptance, discomfort and insecurity are barriers to trust. These psychological dimensions are rooted in the Technology Readiness Index (TRI 2.0) and provide a more nuanced understanding of how individual differences shape trust in AI.

Perceived trust is at the model's core, acting as a mediating variable, linking all seven antecedents to Purchase Intention. Trust's mediating role reflects its position as a cognitive and emotional filter through which consumers evaluate AI-enabled services before acting upon them. Purchase Intention is positioned as the model's outcome, indicating users' behavioral readiness to transact through AI-driven platforms like Shopee. This integrated framework captures the complexity of AI trust-building and offers a theoretical lens to understand how Gen Z navigates automated decision environments in digital commerce.

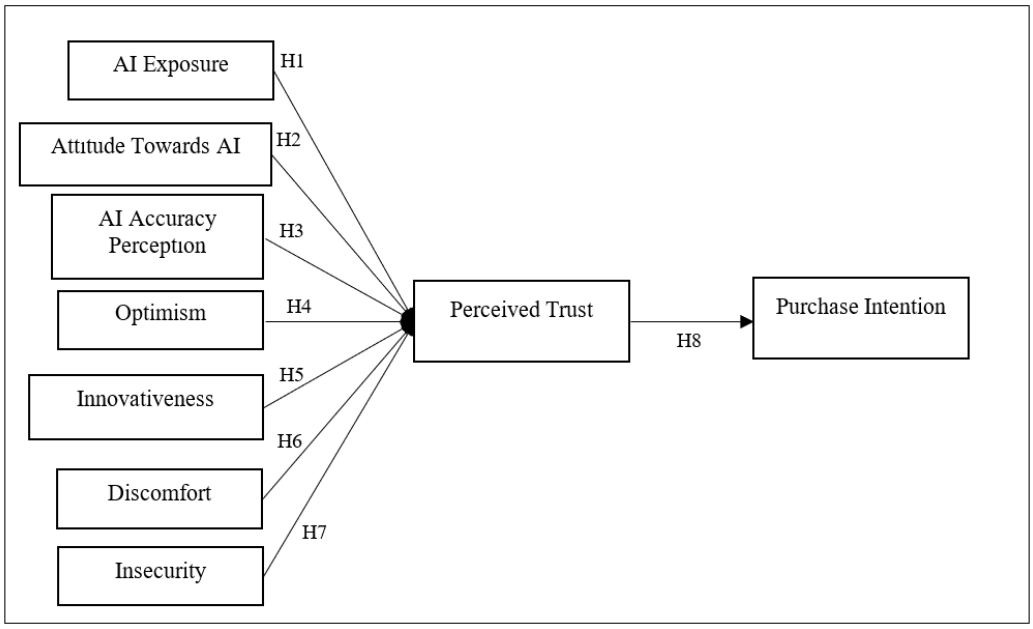

Diagram 1: the Proposed Research Model

RESEARCH METHOD

Research Design and Approach

This study employs a quantitative research design using a cross-sectional survey to test the relationships among cognitive antecedents, psychological readiness variables, perceived trust, and purchase intention in AI-enabled e-commerce platforms. The positivist approach relies on hypothesis testing using Structural Equation Modeling–Partial Least Squares (SEM–PLS) to examine direct and mediating effects as specified in the conceptual model.

Population and Sampling Technique

The target population for this study is Generation Z users in Indonesia (ages 18–26) who have experience using Shopee's AI-based features such as chatbots, product recommendations, and smart search. A purposive sampling technique will be applied to recruit respondents who meet two primary criteria: (1) belonging to Gen Z, and (2) having interacted with AI-driven Shopee features within the past 6 months. The minimum sample size will be determined using the rule of 10 times the maximum number of structural paths directed at any construct in the model (Hair et al., 2017), anticipating a sample size of at least 300 respondents to ensure statistical power and model fit.

Data Collection Procedure

Data will be collected using a self-administered online questionnaire distributed via social media platforms (e.g., Instagram, Twitter, and WhatsApp) and targeted university and youth communities. The questionnaire will be hosted on platforms such as Google Forms or Qualtrics. Respondents will be briefed on the purpose of the study, assured of anonymity and confidentiality, and asked to provide informed consent before proceeding.

Measurement and Instrument

All variables will be measured using validated multi-item scales on a 5-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5).

- Cognitive antecedents (AI Exposure, Attitude Toward AI, AI Accuracy Perception) will be adapted from Teodorescu et al. (2023) and Wang et al. (2023).
- Psychological readiness variables (Optimism, Innovativeness, Discomfort, Insecurity) will follow the TRI 2.0 scale by Parasuraman & Colby (2015).
- Perceived Trust and Purchase Intention will be measured using items adapted from Choi et al. (2023) and validated in prior AI e-commerce studies.

The questionnaire will undergo pre-testing with 30 respondents to ensure content validity, clarity, and internal consistency before large-scale distribution.

Data Analysis Technique

The collected data will be analyzed using SPSS 26.0 for descriptive statistics and SmartPLS 4.0 for hypothesis testing via SEM–PLS. The analysis process will involve:

1. Assessment of measurement model: reliability (Cronbach's Alpha, Composite Reliability), convergent validity (AVE), and discriminant validity (Fornell-Larcker and HTMT).
2. Assessment of structural model: path coefficients, R^2, Q^2, and predictive relevance.
3. Mediation testing will be performed using bootstrapping to assess the indirect effects of perceived trust on the relationship between predictors and purchase intention.

FINDINGS

Respondent Profiles

Table 1 presents the demographic profile of 200 respondents who participated in the study. The gender distribution is balanced, with 54% female and 46% male respondents. Regarding income, most participants (30%) earned between IDR 6,000,000 and < 8,000,000, followed by 22% earning IDR 4,000,000 to <6,000,000. Most respondents worked in the private sector (22%), while students and entrepreneurs accounted for 18% and 15% respectively. Other notable occupations include civil servants (17%) and employees of State-Owned Enterprises (14%). This distribution highlights a diverse sample of economic background and professional engagement, providing a robust basis for analyzing AI-related e-commerce behavior among Gen Z users.

Table 1. Demographic Profile of Respondents

Demographics Variables	N	(%)
Gender		
a. Male	91	46
b. Female	109	54
Income (IDR)		
a. < 2,000,000	36	18
b. 2,000,000 - < 4,000,000	30	15
c. 4,000,000 - < 6,000,000	44	22
d. 6,000,000 - < 8,000,000	60	30
e. 8,000,000 - < 10,000,000	20	10
f. > 10,000,000	10	5
Occupation		

Demographics Variables	N	(%)
a. Students	36	18
b. Enterpreneurs	30	15
c. Private sectors	44	22
d. Civil servant	33	17
e. State-Owned Enterprise	27	14
f. Others	30	15
Total	200	100

Measurement Model

The data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) with the assistance of SmartPLS 4.0 software. PLS-SEM is appropriate for analyzing complex structural models (Hair et al., 2022). The analysis process involves two main stages. First, the measurement model is assessed by evaluating the indicators' validity and reliability. Validity testing includes two components: convergent and discriminant validity. Convergent validity is examined through Average Variance Extracted (AVE) and indicator loadings, with acceptable values exceeding 0.50 (Hair et al., 2022). Discriminant validity is evaluated using the square root of AVE in the correlation matrix and the Heterotrait-Monotrait Ratio (HTMT). Reliability is assessed by calculating Cronbach's Alpha (CA) and Composite Reliability (CR), both of which should meet or surpass the 0.70 threshold (Hair et al., 2022).

Table 2 presents the results of the convergent validity and reliability analysis for all constructs used in the study. Convergent validity was evaluated through item loadings and Average Variance Extracted (AVE), while construct reliability was assessed using the Composite Reliability (CR), as reported earlier. Following the guidelines suggested by Hair et al. (2022), indicator loadings should exceed 0.70, and AVE values should be greater than 0.50 to demonstrate adequate convergent validity.

All observed indicator loadings in this study surpass the recommended threshold of 0.70, ranging from 0.801 (DIS3) to 0.929 (EXPOSE1), confirming strong item reliability. Similarly, AVE values for each construct exceeded the 0.50 benchmark, indicating that a substantial portion of the variance is explained by the latent variables. Specifically, AI Exposure (AVE = 0.827), Attitude Towards AI (AVE = 0.830), and Optimism (AVE = 0.822) showed particularly high convergent validity, reflecting the robustness of their respective measurement items. Constructs such as AI Accuracy Perception (0.788), Innovativeness (0.812), and Insecurity (0.788) also displayed strong AVE scores. Even Discomfort (0.760), which had the lowest mean scores among indicators, achieved acceptable convergent validity. These findings affirm that all constructs in the measurement model possess adequate convergent validity and internal consistency. As a result, the measurement items used in this research are deemed reliable and valid for structural modeling.

Table 2. Convergent Validity and Reliability Test

Variables Codes	Mean	Loadings	AVE
AI Exposure (AE)			
AE1. I often interact with AI-based devices or services on the Shopee e-commerce platform.	4.77	0.929	0.827
AE2. I often use the AI-powered e-commerce platform Shopee for shopping.	4.81	0.899	

Variables Codes	Mean	Loadings	AVE
AE3. I feel familiar with Shopee's AI-powered e-commerce technology in my daily life.	4.76	0.900	
Attitute Towards AI (ATA)			
ATA1. I feel that Shopee's AI-based e-commerce enhances my shopping experience.	4.86	0.893	0.830
ATA2. I feel comfortable interacting with the AI-based Shopee e-commerce platform when shopping.	4.80	0.920	
ATA3. I trust the AI-based product recommendations on Shopee e-commerce platform.	4.76	0.921	
AI Accuracy Perceptıon (AAP)			
AAP1. I feel that the AI-based product recommendations on the e-commerce platform Shopee are accurate.	5.39	0.879	0.788
AAP2. I feel that Shopee's AI-based e-commerce can understand my shopping needs and preferences.	4.72	0.887	
AAP3. I feel that the information from the AI-based e-commerce platform Shopee aligns with my preferences.	5.06	0.897	
Optimism (OPT)			
OPT1. I feel that Shopee's AI-based e-commerce system is effective in resolving technical issues (e.g., irrelevant product recommendations or inaccurate searches).	4.84	0,919	0.822
OPT2. I feel that Shopee's AI-based e-commerce system makes it easier for people to find the products they are looking for.	4.81	0,908	
OPT3. I feel that the AI-based Shopee e-commerce system can be implemented in a scalable and effective manner.	4.78	0,893	
Innovativeness (INN)			
INN1. I am interested in learning about the latest trends in AI-based Shopee e-commerce.	4.83	0,907	0.812
INN2. I feel that from the aspects of service and security, this AI-based Shopee e-commerce system is easy to use.	4.86	0,919	
INN3. I feel I will encounter fewer problems than others when using Shopee's AI-based e-commerce service.	4.87	0,877	
Discomfort (DIS)			
DIS1. I feel that if others know more about Shopee's AI-based e-commerce services than I do.	1.94	0,862	0.760
DIS2. I feel that Shopee's AI-based e-commerce services are not well-designed, making them difficult for individuals to comprehend.	2.25	0,890	

Variables Codes	Mean	Loadings	AVE
DIS3. I feel that AI-based Shopee e-commerce services are not helpful because they don't explain things in an easy-to-understand way.	1.57	0,861	
Insecurity (INS)			
INS1. I don't feel helped when shopping using the AI-based e-commerce service Shopee.	1.64	0,865	
INS2. I feel that Shopee's AI-based e-commerce system makes it difficult for people to find the products they're looking for.	1.90	0,903	
INS3. I feel that the AI-based Shopee e-commerce system cannot be implemented in a scalable and effective manner.	2.20	0,895	
Perceived Trust (PT)			
PT1. I feel that Shopee's AI-based e-commerce is trustworthy.	4.60	0.876	
PT2. I feel that AI-based Shopee e-commerce will keep its promises and commitments.	5.31	0.879	
PT3. I feel safe shopping on the AI-based e-commerce platform Shopee.	4.93	0.836	
Purchase Intention (PI)			
PI1. I tend to visit the e-commerce platform Shopee for shopping because it uses AI technology.	5.40	0.882	
PI2. I usually buy products from the e-commerce platform Shopee because it uses AI technology.	5.02	0.873	
PI3. I am willing to spend more on purchases through the Shopee e-commerce platform because it uses AI technology.	4.69	0.839	
PI4. If given the opportunity, I intend to purchase from the AI-based e-commerce platform Shopee.	5.23	0.886	
PI5. If given the opportunity, I intend to purchase from the AI-based e-commerce platform Shopee in the future.	4.90	0.843	

Table 3 presents the assessment of discriminant validity and construct reliability using the Fornell–Larcker criterion, Heterotrait–Monotrait ratio (HTMT), Cronbach's Alpha (α), Composite Reliability (CR), means, and standard deviations (SD) for each latent variable. The Fornell–Larcker criterion indicates that the square root of the Average Variance Extracted (AVE) for each construct (diagonal values) is greater than its correlations with other constructs, confirming discriminant validity (Fornell & Larcker, 1981). Additionally, all HTMT values are below the conservative threshold of 0.85, reinforcing the discriminant validity among constructs (Henseler et al., 2015). Internal consistency reliability is supported by Cronbach's Alpha values ranging from 0.830 to 0.916 and Composite Reliability (CR) values between 0.898 and 0.937, exceeding the recommended cutoff of 0.70 (Hair et al., 2022). These results demonstrate that all constructs exhibit high reliability and internal consistency. The descriptive statistics show that Attitude Toward AI (M = 5.06, SD = 0.99) and Purchase Intention (M = 5.05, SD = 1.05) received the highest agreement among respondents. In contrast, Discomfort (M = 1.91, SD = 0.91) and Insecurity (M = 1.92, SD = 1.38) were rated the lowest, suggesting respondents generally held favorable perceptions of AI-based e-commerce but expressed moderate psychological concerns. Overall, the findings validate the adequacy of the measurement model and support the structural path analysis.

Table 3. Discriminant Validity and Reliability Test

Fornell-Larcker Criterion	AAP	AE	ATA	DIS	INN	INS	OPT	PI	PT	α	CR
AAP	0,846									0.865	0.918
AE	0,608	0,832								0.897	0.935
ATA	0,642	0,669	0,819							0.898	0.936
DIS	0,246	0,180	0,187	0,902						0,842	0,905
INN	0,466	0,529	0,428	0,187	0,834					0,886	0,928
INS	0,230	0,227	0,183	0,764	0,146	0,885				0,867	0,918
OPT	0,711	0,534	0,612	0,192	0,345	0,166	0,768			0,892	0,933
PI	0,423	0,427	0,432	0,284	0,351	0,356	0,398	0,795		0.916	0.937
PT	0,469	0,361	0,427	0,145	0,265	0,208	0,446	0,413	0,768	0.830	0.898
Heterotrait-Monotrait (HTMT)	**AAP**	**AE**	**ATA**	**DIS**	**INN**	**INS**	**OPT**	**PI**	**PT**	**Means**	**SD**
AAP	-									4.78	1.03
AE	0.765	-								4.81	1.04
ATA	0.819	0.873	-							5.06	0.99
DIS	0.317	0.252	0.263	-						4.81	1.26
INN	0.685	0.786	0.637	0.279	-					4.85	0.95
INS	0.281	0.273	0.232	0.399	0.249	-				1,92	1.38
OPT	0.465	0.741	0.875	0.253	0.555	0.234	-			1,91	0.91
PI	0.563	0.566	0.572	0.421	0.541	0.475	0.563	-		4.94	1.06
PT	0.645	0.501	0.604	0.200	0.424	0.272	0.671	0.606	-	5.05	1.05

Note: AAP=AI Accuracy Perceptıon; AE=AI Exposure; ATA=Attitute Towards AI; DIS=Discomfort; INN=Innovativeness; INS=Insecurity; OPT=Optimism; PI=Purchase Intention; PT=Perceived Trust

Structural Model Estimation

After confirming the validity of the measurement model, the subsequent step involves evaluating the structural model. Table 4 presents the R^2 and Q^2 values, which are key indicators in assessing the explanatory and predictive power of the structural model in Partial Least Squares Structural Equation Modeling (PLS-SEM). The R^2 value for Perceived Trust is 0.446, indicating that approximately 44.6% of the variance in Perceived Trust can be explained by the exogenous variables in the model—namely AI Exposure, Attitude Toward AI, AI Accuracy Perception, Optimism, Innovativeness, Discomfort, and Insecurity. Meanwhile, the R^2 value for Purchase Intention is 0.554, suggesting that 55.4% of the variance in Purchase Intention is accounted for by Perceived Trust, which acts as a mediating variable.

Regarding the model's predictive relevance, the Q^2 values are all above the threshold of 0, indicating adequate predictive relevance (Hair et al., 2022). The Q^2 value for Perceived Trust is 0.410, and for Purchase Intention it is 0.357, both of which are considered medium to considerable predictive

relevance based on the guidelines by Hair et al. These values validate that the model has strong explanatory power and predictive capability for both endogenous variables.

Thus, the results demonstrate that the proposed model provides substantial support for understanding the cognitive and psychological antecedents of trust and its impact on purchase intention in AI-based e-commerce settings, particularly among Gen Z Shopee users.

Table 4: R2 and Q2

Variabel	R-square	Q-square
Perceived Trust	0.446	0.410
Purchase Intention	0.554	0.357

Table 5 presents the results of the hypothesis testing using Partial Least Squares Structural Equation Modeling (PLS-SEM). The table includes the Variance Inflation Factor (VIF), standardized path coefficients (β), t-statistics, and p-values for each hypothesized relationship. All VIF values are below the threshold of 5, indicating no multicollinearity concerns among the constructs (Hair et al., 2022). The results confirm that all proposed paths are statistically significant at the $p < 0.05$ level.

Specifically, AI Exposure ($\beta = 0.296$, $t = 6.127$, $p = 0.000$), Attitude Towards AI ($\beta = 0.311$, $t = 6.192$, $p = 0.000$), and AI Accuracy Perception ($\beta = 0.404$, $t = 7.265$, $p = 0.000$) have significant and positive effects on Perceived Trust, supporting H1, H2, and H3 respectively. These results reinforce the role of cognitive evaluations of AI technologies in building consumer trust.

The psychological readiness dimensions also show significant effects. Optimism positively influences Perceived Trust ($\beta = 0.215$, $t = 3.877$, $p = 0.000$), confirming H4. While Innovativeness also has a positive effect ($\beta = 0.166$, $t = 3.130$, $p = 0.001$), it contradicts the initial hypothesis (H5), which predicted no significant influence, indicating an unexpected finding worth further exploration. In contrast, Discomfort ($\beta = -0.349$, $t = 7.635$, $p = 0.000$) and Insecurity ($\beta = -0.394$, $t = 8.327$, $p = 0.000$) negatively affect Perceived Trust, strongly supporting H6 and H7, and highlighting the importance of psychological barriers in AI adoption.

Finally, Perceived Trust significantly influences Purchase Intention ($\beta = 0.371$, $t = 6.530$, $p = 0.000$), confirming H8. This result underscores the mediating role of trust in translating AI experiences and perceptions into consumer behavioral intentions in AI-enabled e-commerce platforms like Shopee. These findings collectively affirm the robustness of the proposed integrated model.

Table 5: Hypothesis Testing

Hypotheses	Path	VIF	β	T-Stat	p-Value
H1	AE → PT	1.027	0.296	6.127	0.000
H2	ATA → PT	1.044	0.311	6.192	0.000
H3	AAP → PT	1.069	0.404	7.265	0.000
H4	OPT → PT	1.112	0,215	3,877	0,000
H5	INN → PT	1.056	0,166	3,130	0,001
H6	DIS → PT	1.068	-0,349	7,635	0,000
H7	INS → PT	1.132	-0,394	8,327	0,000
H8	PT → PI	1.743	0.371	6.530	0.000

DISCUSSION

This study aimed to examine the integrated influence of both cognitive and psychological drivers on Perceived Trust and Purchase Intention in AI-based e-commerce among Gen Z Shopee users. The findings offer critical insights into how users' trust in AI systems mediates the link between various antecedents and their intention to purchase online.

AI exposure positively and significantly affects perceived trust in Shopee e-commerce. A high level of AI exposure reflects the extent to which users, particularly those from Generation Z, are accustomed to interacting with AI-based technologies in their daily activities, including searching for and purchasing products or services online. AI exposure can take the form of direct interaction with AI-powered features such as product recommendations, smart searches, and chatbots. The more frequently users engage with efficient AI systems, the higher their perception of the system's reliability and security, ultimately shaping trust in the e-commerce platform. These findings are consistent with several prior studies (Fedorko et al., 2022; Fonseka et al., 2022; Kim et al., 2021; Tamez et al., 2024; Yeo et al., 2022), which have demonstrated positive influences. For instance, the study by Kim et al. (2021) in the field of e-commerce emphasized the importance of trust in vendors and online merchants in reducing the perceived risk consumers face during online transactions. The results of this study reveal that AI exposure—through accurate product recommendations and enhanced security features enabled by AI systems—can increase consumers' perceived trust in e-commerce platforms.

The discussion of the AI Exposure variable can also be linked to the age of e-commerce users. The data in this study represents Generation Z, individuals born between 1997 and 2012, who have grown up alongside technological advancements, including AI. Consequently, they exhibit a greater tendency to explore and accept the use of AI across various aspects of life, particularly in e-commerce shopping activities, especially on the Shopee platform. Therefore, high exposure to AI technology strengthens their perceived trust in the systems they use (Tamez et al., 2024). Thus, this younger age group (Generation Z) shows a strong inclination to develop trust in AI usage within e-commerce, as their digital experiences shape a positive perception of the reliability and convenience of AI technologies.

The findings from this study reveal that the variable Attitude Towards AI has a positive and significant influence on Perceived Trust in the use of Shopee e-commerce. This indicates that the more positive users' attitudes are toward AI technology, the higher their trust in the e-commerce platform that implements such technology. These results are consistent with previous studies (Akbar et al., 2024; Tamez et al., 2024; Teodorescu et al., 2023), demonstrating that positive AI perceptions foster consumer trust. For example, Tamez et al. (2024) found that a positive attitude toward AI significantly enhances consumer trust in e-commerce platforms, particularly among Generation Z. This trust stems from their appreciation of AI's role in improving service convenience and efficiency.

In the context of this study, the relationship between Attitude Towards AI and Perceived Trust can be linked to the average income level of respondents. Most participants in this study reported high incomes, specifically in IDR 8,000,001 to IDR 10,000,000. Individuals with higher income levels tend to value the efficiency and convenience offered by AI (Cazzaniga, 2024), such as personalized product recommendations, instant chatbot responses, and accurate innovative search functionalities enabled by AI on Shopee. This positive attitude motivates users to view AI technology as a tool that supports more rational and secure purchasing decisions. Consequently, users with higher incomes are more likely to develop trust in both the AI system and the Shopee platform overall, as AI is perceived to enhance the comfort and efficiency of online shopping.

The findings of this study indicate that AI accuracy perception has a positive and significant influence on perceived trust. This suggests that the stronger the user's belief in AI's ability to deliver accurate and relevant outcomes, the greater the potential for trust to be established in the system. These findings highlight that AI accuracy perception is crucial for building trust. Without the perception of

accuracy, even the most advanced AI systems may fail to gain consumer trust conversely, when users believe that AI can understand and respond appropriately, their trust in the brand increases, strengthening loyalty and purchase intention (Tamez et al., 2024). These results align with previous studies that emphasize the importance of system accuracy in shaping users' trust perceptions (Alboqami, 2023; Cheng & Jiang, 2020; Kumar et al., 2019; Tamez et al., 2024). For instance, Alboqami (2023) found that among Saudi consumers following AI influencers on social media, perceived trust was influenced by their perceptions of accuracy and the relevance of content provided by the AI influencer.

The discussion on the relationship between AI accuracy perception and perceived trust can also be linked to the respondents' experience or familiarity with AI systems used in e-commerce platforms. All respondents in this study had prior knowledge or familiarity with AI features on the Shopee platform. Individuals—particularly from Generation Z—who are accustomed to using AI systems tend to have a better evaluative ability regarding the accuracy of such technology (Savin et al., 2024). This is consistent with the Unified Theory of Acceptance and Use of Technology (UTAUT), which suggests that experience can strengthen the relationship between performance expectancy and user acceptance of a system (Venkatesh et al., 2003). When users feel that an AI system delivers results aligned with their preferences based on past experiences, this further enhances their trust in the technology. Thus, a positive perception of AI accuracy, supported by direct experience, significantly strengthens user trust, serving as a key foundation before progressing to actual purchase decisions on e-commerce platforms.

The results of this study indicate that the optimism variable has a positive and significant effect on perceived trust. This finding suggests that the higher consumers' optimism in the context of social commerce, the greater the likelihood that trust will be established in using AI during the purchasing process on Shopee. The study by Lewicki et al. (1998) reported findings consistent with this research. Additionally, research by Devi et al. (2023) demonstrated that technology readiness—both in terms of enablers (optimism and innovativeness) and inhibitors (discomfort and insecurity)—significantly influences consumers' acceptance or rejection of AI-based conversational agents in shopping. Enabling factors increased the adoption and positive user attitudes toward AI, while inhibiting factors triggered resistance, although they did not significantly impact attitudes toward AI. These findings underscore the importance of understanding motivators and technological barriers in designing AI-powered chatbots that are more acceptable to consumers. On the other hand, the study by Munthe et al. (2020) presented contrasting findings, where innovativeness did not significantly affect behavioral intention.

The discussion on optimism can be linked to the demographic profile of the respondents by gender, with the majority being female (54%). In various studies, women are often associated with a cautious yet open attitude toward digital services that provide convenience. Their optimism regarding the benefits of Shopee's AI-based technology also strengthens their trust in the platform. Furthermore, most respondents were private-sector employees (22%) with an income range of IDR 6,000,001 to IDR 8,000,000 (30%), which indicates they tend to have greater access to and experience with technology. As a result, optimism toward Shopee's AI systems naturally develops and contributes to increased trust in using these technologies.

The results of this study indicate that the innovativeness variable has a positive and significant effect on perceived trust. Innovativeness also positively influences perceived trust, meaning consumers who are open to new things and enjoy trying innovative technologies tend to build trust more easily when using AI. This innovative attitude facilitates adaptation and acceptance of new technologies in online shopping, thereby strengthening their trust in AI-powered systems. The findings align with the study by Arsyita et al. (2024), which showed that individuals with innovative traits are more likely to trust new technologies because they perceive them as valuable and easy to use. Trust in technology plays a crucial role in driving technology adoption, especially in online shopping and services that utilize artificial intelligence.

The discussion on innovativeness can also be linked to one's occupation. In this study, most respondents worked in the private sector and had middle-to-upper income levels, which indicates a higher degree of openness to innovation. This attitude reinforces the belief that new AI-based features can provide a better shopping experience, which ultimately fosters stronger consumer trust.

The findings of this study show that the relationship between discomfort and perceived trust is supported, but the effect is negative and significant. This result indicates that feelings of discomfort when using technology can hinder the development of trust, whether due to difficulties in usage, concerns about security, or users' unpreparedness to engage with complex technological features. This study aligns with prior research on AI-based retail platforms (ElSayad et al., 2024), which found that perceived trust is strongly influenced by how technology is presented to users. Discomfort can lead to skepticism or caution toward AI-powered retail platforms, which does not directly reduce the perceived usefulness of the service among millennial and Gen Z customers (ElSayad et al., 2024).

The discussion related to discomfort can also be associated with an individual's income level. Based on the descriptive data, 33% of respondents are low-income, earning below IDR 4,000,000 monthly. This group may face limitations in accessing adequate technological devices or lack sufficient digital literacy to understand AI-based systems fully. When encountering new technologies like Shopee's AI-driven features, they may feel confused, uncomfortable, or even anxious about making errors. These feelings of unease reflect discomfort, which ultimately reduces their level of trust in online shopping platforms. Therefore, the results highlight that demographic characteristics like income level are relevant to how users perceive new technologies. Individuals in lower income brackets tend to be more vulnerable to discomfort when adapting to AI systems, making it more challenging for them to develop trust in such technologies.

The findings of this study indicate that insecurity has a negative and significant effect on perceived trust, meaning the hypothesis is supported. This result contrasts previous findings regarding Technology Readiness toward AI (Caldeira et al., 2021). Insecurity is uncertainty toward technology caused by doubts about its ability to function properly and concerns about potential negative impacts. Furthermore, to enhance technology adoption, organizations must address insecurity by building trust through transparency, data security, and improved user experience when engaging with new technologies (Caldeira et al., 2021). On the other hand, a study by Han and Park (2016) found results consistent with this research. Their analysis revealed that individuals with high levels of insecurity are more likely to doubt the reliability of technology, which in turn lowers their trust in social commerce platforms.

The discussion on insecurity can also be associated with gender. Based on the descriptive data, the majority of respondents in this study are female, accounting for 54% of the total 200 participants. Previous research has shown that women tend to be more sensitive to privacy and data security issues than men. This heightened sensitivity may trigger greater insecurity when using AI-based technologies, especially when there is a lack of clear information about user data protection. Therefore, the insecurity experienced by most female users in this study may explain the lower levels of trust toward the AI-powered Shopee platform.

This study found that perceived trust positively affects purchase intention, meaning that the higher the consumer's confidence in a product, service, or technology, such as AI, on an online shopping platform, the greater the likelihood of making a purchase. Trust helps reduce perceived risks and uncertainties, often barriers in online shopping decision-making. This finding aligns with the study by ElSayad and Mamdouh (2024), which showed that perceived trust significantly influences purchase intention on AI-powered retail platforms. Similarly, research by Kawet et al. (2017) supports this result, indicating that in online transactions, customers' trust in the shopping platform plays a crucial role in determining whether they proceed with a purchase.

The discussion on purchase intention can be linked to an individual's income level. Based on the descriptive data, respondents in the upper-middle income bracket—particularly those earning between IDR 6,000,001 and IDR 8,000,000—constituted the majority, with 60 respondents or 30%. This group has a relatively high purchasing power and is likely more accustomed to using digital services and more selective in choosing platforms they trust. Trust becomes a key component in building loyalty and sustaining transactions, especially for consumers with sufficient income to make regular purchases.

In summary, these results provide strong empirical support for integrating cognitive assessments and psychological readiness into trust-based models of AI adoption. Trust in AI systems is not formed solely by functional attributes but by how users feel and think about these technologies. This finding offers actionable insights for e-commerce platforms such as Shopee to enhance user trust by improving perceived accuracy, reducing user discomfort, and addressing security concerns, especially among Gen Z users who are digitally native yet psychologically sensitive to technological intrusions.

CONCLUSION

This study provides empirical evidence on the cognitive and psychological drivers influencing Gen Z consumers' perceived trust and purchase intention toward AI-powered e-commerce platforms, focusing on Shopee. The results show that AI exposure, attitude toward AI, accuracy perception, optimism, and innovativeness significantly strengthen perceived trust, while discomfort and insecurity reduce it. Furthermore, perceived trust is crucial, linking these antecedents to purchase intention. These findings validate the theoretical integration of cognitive factors (e.g., accuracy, exposure) and psychological readiness (e.g., optimism, insecurity), offering a more comprehensive framework for understanding trust formation in AI-driven shopping environments.

Theoretically, this research enriches the literature by integrating technology readiness and trust theory constructs into a single structural model and testing their roles in the context of Gen Z digital consumers. It also contributes to the evolving discourse on AI in marketing by empirically validating perceived trust as a central mediating mechanism. Moreover, this study deepens our understanding of how psychological readiness dimensions—often overlooked—interact with technological perceptions to influence trust and behavioral intention.

From a practical perspective, the findings provide actionable insights for e-commerce platforms like Shopee. Enhancing features that promote perceived accuracy and user familiarity—such as transparent AI explanations, responsive chatbots, and personalized recommendations—can significantly improve consumer trust and purchase rates. Addressing psychological barriers, such as discomfort and insecurity, simplifying AI interfaces, and ensuring strong data privacy measures are essential. Tailoring strategies to Gen Z users' unique preferences and digital fluency will be key to sustaining long-term engagement and competitive advantage in AI-enabled commerce.

REFERENCES

Ahmed, R., Rizwan, M., & Javed, H. (2024). The role of artificial intelligence in increasing e-commerce purchase intentions: A psychological perspective. Journal of Innovation & Knowledge, 9(1), 100349. https://doi.org/10.1016/j.jik.2023.100349

Akbar, M. U., Ibrahim, Nabil, S. J., Iqbal, K. A., & Islam, A. (2024). The Influence of Artificial Intelligence on Consumer Trust in E-Commerce: Opportunities and Ethical Challenges. European Journal of Theoretical and Applied Sciences, 2(6), 250–259. https://doi.org/10.59324/ejtas.2024.2(6).20

Alboqami, H. (2023). Trust me, I'm an influencer! Causal recipes for customer trust in artificial intelligence influencers in the retail industry. Journal of Retailing and Consumer Services, 72. https://doi.org/10.1016/j.jretconser.2022.103242

Arsyita, F. (2024). Analisis Pengaruh Innovativeness, Stress, Perceived Ease Of Use, Perceived Satisfaction, Perceived Risk dan Perceived Trust Terhadap Intention To Use Yang Dimediasi Oleh Perceived Usefulness Penggunaan Layanan Go-Pay Pada Aplikasi Go-Jek. Jurnal Ilmiah Wahana Pendidikan, 2024(5), 367–387. https://doi.org/10.5281/zenodo.10526041

Beyari, H., & Garamoun, H. (2022). The effect of artificial intelligence on end-user online purchasing decisions: Toward an integrated conceptual framework. Sustainability, 14(15), 9637. https://doi.org/10.3390/su14159637

Caldeira, T. A., Ferreira, J. B., Freitas, A., & De Queiroz Falcão, R. P. (2021). Adoption of Mobile Payments in Brazil: Technology Readiness, Trust and Perceived Quality. Brazilian Business Review, 18(4), 415–432. https://doi.org/10.15728/bbr.2021.18.4.4

Cazzaniga, Mauro. (2024). Gen-AI : Artificial Intelligence and the Future of Work. International Monetary Fund.

Cheng, Y. & Jiang, H. (2020). How Do AI-driven Chatbots Impact User Experience? Examining Gratifications, Perceived Privacy Risk, Satisfaction, Loyalty, and Continued Use. Journal of Broadcasting and Electronic Media, 64(4), 592–614. https://doi.org/10.1080/08838151.2020.1834296

Choi, Y., Jang, S. H., & Lee, H. (2023). Impact of embedded AI mobile smart speech recognition on consumer attitudes toward AI and purchase intention across Generations X and Y. Technology in Society, 72, 102187. https://doi.org/10.1016/j.techsoc.2022.102187

ElSayad, G., & Mamdouh, H. (2024). Are young adult consumers ready to be intelligent shoppers? The importance of perceived trust and the usefulness of AI-powered retail platforms in shaping purchase intention. Young Consumers, 25(6), 969-989. https://doi.org/10.1108/YC-02-2024-1991

Fedorko, R., Kráľ, Š., & Bačík, R. (2022). Artificial Intelligence in E-commerce: A Literature Review. Lecture Notes on Data Engineering and Communications Technologies, 111, 677–689. Springer Science and Business Media Deutschland GmbH. https://doi.org/10.1007/978-981-16-9113-3_50

Fonseka, K., Jaharadak, A. A., & Raman, M. (2022). Impact of E-commerce adoption on business performance of SMEs in Sri Lanka; moderating role of artificial intelligence. International Journal of Social Economics, 49(10), 1518–1531. https://doi.org/10.1108/IJSE-12-2021-0752

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39–50. https://doi.org/10.2307/3151312

Guerra-Tamez, M., Sahin, A., & Karoui, I. (2024). Decoding Gen Z: AI's influence on e-commerce loyalty and trust. Sustainability, 16(2), 1234.

Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2022). A primer on partial least squares structural equation modeling (PLS-SEM) (3rd Edition). Sage Publications, Inc.

Han, S. L., & Park, H. J. (2016). Effects of Technology Readiness on User Perceptions and Use Intention of Mobile Social Commerce. Asia Marketing Journal, 18(2), 25. https://doi.org/10.15830/amj.2016.18.2.25

Henseler, J., Ringle, C. M., & Sarstedt, M., 2015. A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the Academy of Marketing Science, 43(1), 115–135.

Hossain, M., Arefin, M. S., & Hasan, R. (2023). Chatbots in e-commerce: A study of Gen Z customer experience and engagement. International Journal of Human–Computer Interaction, 39(5), 1002–1016.

Javed, H., Ahmed, R., & Rizwan, M. (2023). Optimization of consumer engagement with artificial intelligence in e-commerce platforms. Technology in Society, 72, 102165. https://doi.org/10.1016/j.techsoc.2023.102165

Kawet, O., Pangemanan, S. S., & Tumiwa, J. (2017). Analyzing The Effect of Perceived Value and Trust on Purchase Intention (Case Study of Zalora). Jurnal EMBA, 5(2), 773–783.

Kim, J., Giroux, M., & Lee, J. C. (2021). When do you trust AI? The effect of number presentation detail on consumer trust and acceptance of AI recommendations. Psychology and Marketing, 38(7), 1140–1155. https://doi.org/10.1002/mar.21498

Kumar, V., Rajan, B., Venkatesan, R., & Lecinski, J. (2019). Understanding the role of artificial intelligence in personalized engagement marketing. California Management Review, 61(4), 135–155. https://doi.org/10.1177/0008125619859317

Lewicki, R. J., Mcallister, D. J., & Bies, R. J. (1998). Trust and Distrust: New Relationships and Realities. The Academy of Management Review, 23(3), 438-458. https://about.jstor.org/terms

Li, H., Guo, Y., & Kim, H. J. (2023). How gamifying AI shapes customer motivation, engagement, and purchase behavior. Technological Forecasting and Social Change, 191, 122570. https://doi.org/10.1016/j.techfore.2023.122570

Merritt, K., & Zhao, S. (2024). The power of live stream commerce: A case study of how live stream commerce can be utilized in the traditional British retailing sector. Journal of Retailing and Consumer Services, 76, 103422. https://doi.org/10.1016/j.jretconser.2023.103422

Munthe, R. C., Munandar, J. M., & Syamsun, M. (2020). The Influence of Technology Readiness on Behavioral Intention (Case Study of Online Transportation in Indonesia and Thailand). Jurnal Aplikasi Bisnis dan Manajemen 6(1), 207-217. https://doi.org/10.17358/jabm.6.1.207

Nguyen, C. D. (2024). The impact of AI adoption on consumer purchase intention and marketing effectiveness in Vietnam's online retail industry. International Journal of Education, Business and Economics Research, 4(6), 33–59.

Parasuraman, A., & Colby, C. L. (2015). An updated and streamlined technology readiness index: TRI 2.0. Journal of Service Research, 18(1), 59–74. https://doi.org/10.1177/1094670514539730

Rizwan, M., Javed, H., & Khan, S. A. R. (2024). The role of artificial intelligence in increasing e-commerce purchase intentions: A psychological perspective. Journal of Innovation & Knowledge, 9(1), 100349.

Savin, P. S., Rusu, G., Prelipcean, M., & Barbu, L. N. (2024). Cognitive Shifts: Exploring the Impact of AI on Generation Z and Millennials. Proceedings of the International Conference on Business Excellence, 18(1), 223–232. https://doi.org/10.2478/picbe-2024-0019

Tamez, C. R. G., Kraul Flores, K., Serna-Mendiburu, G. M., Chavelas Robles, D., & Ibarra Cortés, J. (2024). Decoding Gen Z: AI's influence on brand trust and purchasing behavior. Frontiers in Artificial Intelligence, 7. https://doi.org/10.3389/frai.2024.1323512

Teodorescu, D., Aivaz, K.-A., Vancea, D. P. C., Condrea, E., Dragan, C., & Olteanu, A. C. (2023). Consumer trust in AI algorithms used in e-commerce: A case study of college students at a Romanian public university. Sustainability, 15(15), 11925. https://doi.org/10.3390/su151511925

Thamma, N., Anywatnapong, W., Tunpornchai, W., & Saetang, C. (2024). Transforming e-commerce: Artificial intelligence effect on purchase decision and happiness. Asian Administration and Management Review, 7(1), 133–144. https://doi.org/10.14456/aamr.2024.13

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. MIS Quarterly: Management Information Systems, 27(3), 425–478. https://doi.org/10.2307/30036540

Wang, Y., Yu, C., & Fesenmaier, D. R. (2023). A psychological approach to AI chatbot adoption in e-commerce: Generation Z's intentions and concerns. Computers in Human Behavior, 139, 107568. https://doi.org/10.1016/j.chb.2023.107568