

Legal Status and Liability of E-Commerce Platforms Regarding Transactions Utilizing Artificial Intelligence in Digital Trade in Indonesia

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ABSTRACT: This study examines the legal status and liability of e-commerce platforms regarding transactions utilizing artificial intelligence (AI) in digital trade in Indonesia. The increasing use of AI in product recommendations, automated pricing, customer service, fraud detection, and transaction processing creates new legal challenges concerning the position and responsibilities of e-commerce platforms. This research employs a normative juridical method by examining relevant Indonesian laws and regulations, legal principles, and literature concerning electronic commerce, consumer protection, and AI governance. The study analyzes the extent to which e-commerce platforms may be held legally responsible for losses arising from AI-assisted transactions, particularly when such losses result from inaccurate information, algorithmic errors, or system failures. The research is expected to provide a legal framework for determining the rights, obligations, and liability of e-commerce platforms in AI-based digital transactions while ensuring legal certainty and consumer protection. The findings may contribute to the development of Indonesian commercial law in responding to technological developments and the increasing integration of AI into digital trade.

KEYWORDS: legal status, liability of e-commerce, artificial intelligence (AI), digital trade

I. INTRODUCTION

The rapid development of digital technology has transformed traditional patterns of commerce into electronic and technology-driven forms of trade. E-commerce platforms no longer merely function as intermediaries connecting sellers and consumers but have developed into complex digital ecosystems involving data processing, product recommendations, automated pricing, transaction verification, fraud detection, customer service, and automated decision-making. Within this development, Artificial Intelligence (AI) is increasingly utilized to improve the efficiency and personalization of digital commerce services. Although the use of AI provides significant benefits for businesses and consumers, it simultaneously creates new legal challenges concerning transparency, accuracy, algorithmic decision-making, data protection, and liability when AI-generated decisions or system failures cause losses. The United Nations Conference on Trade and Development (UNCTAD) has identified several consumer protection concerns associated with AI, including fairness, transparency, accountability, algorithmic bias, and digital designs that may influence consumer decision-making (UNCTAD, 2025).

In Indonesia, electronic commerce has been provided with a legal foundation through Government Regulation Number 80 of 2019 concerning Trading Through Electronic Systems (Government Regulation No. 80/2019). The regulation governs trading activities conducted through electronic systems and emphasizes the importance of information transparency, transaction legality, and consumer protection. It also recognizes the role of electronic system providers and intermediaries within the digital trading ecosystem. However, Government Regulation No. 80/2019 was enacted before the rapid expansion of generative AI and sophisticated algorithmic decision-making systems in digital commerce. Consequently, questions arise regarding the extent to which existing provisions concerning the responsibilities of e-commerce platforms can be applied when transactions are influenced, processed, or facilitated by AI systems. This situation demonstrates a potential regulatory gap between existing commercial regulations and technological developments in AI-based digital trade.

The issue of liability becomes increasingly complex because e-commerce transactions involve several parties, including consumers, sellers, and platform operators. When consumers suffer losses as a result of inaccurate information, algorithmic recommendations, automated pricing, AI-generated decisions, or system failures, determining the legally responsible party may not always be straightforward. Law Number 8 of 1999 concerning Consumer Protection establishes fundamental rights for consumers and regulates the obligations and liability of business actors. Nevertheless, the legislation was enacted at a time when

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AI had not yet become an integral component of digital commerce. Therefore, its traditional concepts of business-actor liability may require further interpretation when applied to transactions involving autonomous or semi-automated AI systems. Recent legal scholarship has similarly identified continuing difficulties in determining the legal position and liability of digital platforms when consumers experience losses arising from transactions conducted through online marketplaces.

Furthermore, the utilization of AI in e-commerce is closely connected to the protection of personal data. AI systems commonly require substantial amounts of consumer data to analyze purchasing behavior, generate personalized recommendations, conduct targeted advertising, detect fraudulent transactions, and optimize commercial services. Indonesia has enacted Law Number 27 of 2022 concerning Personal Data Protection (Law No. 27/2022), which establishes rights for personal data subjects and obligations for data controllers and processors, as well as administrative and criminal sanctions in certain circumstances. However, AI-based processing creates additional legal concerns because algorithmic decision-making may be complex and difficult for consumers to understand. Junaidi and Fadzil (2024), for example, emphasize the urgency of personal data protection in e-commerce transactions involving AI. Similarly, Putra and Haq (2024) examine the legal responsibility associated with AI-related personal data violations on e-commerce platforms. These developments demonstrate that AI-based commerce requires an integrated legal approach encompassing both commercial transactions and personal data protection.

The issue has become increasingly significant as Indonesia continues to develop a comprehensive national framework for AI governance. The Indonesian Government has been developing a Draft Presidential Regulation on Artificial Intelligence Ethics and a Draft Presidential Regulation concerning the National Artificial Intelligence Roadmap for 2026–2029. The development of these instruments demonstrates the government's effort to establish an AI ecosystem that is ethical, safe, and accountable. However, because these instruments are part of an evolving regulatory framework, uncertainty remains concerning their future relationship with existing commercial, consumer protection, electronic transaction, and personal data legislation. The regulatory transition is particularly important for e-commerce because AI is increasingly integrated into core commercial functions rather than being used merely as an auxiliary technological tool. Therefore, legal research is necessary to examine whether the existing Indonesian legal framework is sufficiently capable of addressing liability arising from AI-assisted commercial transactions (Diah & Wiraguna, 2025).

The urgency of this research lies in the need to establish a clear legal framework for determining liability when AI is utilized in digital commercial transactions. AI itself cannot ordinarily be treated as an independent legal subject capable of bearing legal responsibility in the same manner as a natural person or legal entity. Consequently, the central legal issue concerns the identification of the party that should bear responsibility based on its role in developing, controlling, operating, deploying, or benefiting from the AI system. OECD (2024) emphasizes that AI-related risks and liability may involve multiple actors throughout the AI value chain, including developers, operators, suppliers, sellers, and users. In the context of e-commerce, this raises important questions concerning whether an online platform should be responsible for losses resulting from an AI system operating within its commercial infrastructure and, if so, under what legal basis and circumstances (Su *et al.*, 2025). Establishing such a framework is important not only for consumer protection but also for legal certainty for businesses operating AI-based digital platforms.

Based on the foregoing discussion, a research gap remains concerning the relationship between the legal status of ecommerce platforms, the use of AI in commercial transactions, and the allocation of legal liability under Indonesian commercial law. Previous studies have examined platform liability for consumer losses, personal data breaches, and the use of AI in data protection. Other recent studies have begun to examine algorithmic liability in digital economic transactions and the possibility of automated breaches of contract. However, further research is required to comprehensively examine the legal status of ecommerce platforms when AI is directly involved in transaction-related processes and to determine the appropriate legal basis for imposing liability on such platforms. This research therefore focuses on “Legal Status and Liability of E-Commerce Platforms Regarding Transactions Utilizing Artificial Intelligence in Digital Trade in Indonesia.” The study is expected to contribute to the development of Indonesian commercial law by clarifying the legal position of e-commerce platforms, identifying the forms and limits of their liability, and evaluating whether the existing Indonesian legal framework provides adequate legal certainty and consumer protection in AI-assisted digital trade.

II. RESEARCH METHODOLOGY

This research employs a normative juridical method using a statutory, conceptual, and comparative approach to examine the legal status and liability of e-commerce platforms regarding transactions utilizing Artificial Intelligence (AI) in digital trade in Indonesia. The statutory approach is conducted by analyzing relevant Indonesian laws and regulations, including Law Number 8 of 1999 concerning Consumer Protection, Law Number 27 of 2022 concerning Personal Data Protection, Law Number 1 of 2024 concerning Electronic Information and Transactions, and Government Regulation Number 80 of 2019 concerning Trading Through Electronic

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Systems. The conceptual approach examines legal concepts relating to electronic commerce, platform liability, consumer protection, automated decision-making, and AI governance, while the comparative approach considers relevant international legal frameworks and principles concerning AI accountability and digital platform responsibility. The research uses secondary legal materials consisting of primary legal sources, secondary legal materials such as scholarly journals, books, academic articles, and research reports, as well as tertiary legal materials including legal dictionaries and relevant online legal databases. The collected materials are analyzed qualitatively through systematic interpretation to identify the legal position of e-commerce platforms, the applicable basis of liability for AI-assisted transactions, and the adequacy of the existing Indonesian legal framework in providing legal certainty and consumer protection.

III. RESULTS AND DISCUSSION

A. Legal Status of E-Commerce Platforms Regarding Transactions Utilizing Artificial Intelligence in Digital Trade in Indonesia

The legal status of e-commerce platforms in transactions utilizing Artificial Intelligence (AI) in Indonesia must first be understood from the changing function of digital platforms within the electronic commerce ecosystem. E-commerce platforms initially operated primarily as intermediaries connecting sellers and consumers; however, technological developments have transformed platforms into active participants that provide payment systems, product recommendations, automated customer services, fraud detection, content moderation, and algorithmic transaction management. The increasing use of AI means that platforms may exercise significant influence over the manner in which consumers receive information and make purchasing decisions. Consequently, the legal position of an e-commerce platform cannot always be viewed solely as that of a passive intermediary. Recent legal research indicates that algorithmic intervention may reduce the validity of the argument that platforms are merely neutral intermediaries, particularly where platforms actively control or curate transactions through technological systems (Denov *et al.*, 2026).

Under Indonesian law, the legal status of e-commerce platforms is closely related to the regulatory framework governing electronic commerce. Government Regulation Number 80 of 2019 concerning Trading Through Electronic Systems establishes a legal framework for electronic trading activities and regulates the obligations of parties involved in electronic commerce. In addition, Law Number 1 of 2024 concerning the Second Amendment to the Electronic Information and Transactions Law provides a broader legal foundation for electronic systems and transactions. Within this framework, an e-commerce platform may perform several functions simultaneously, including providing an electronic system, facilitating transactions, managing consumer information, and supporting communication between sellers and consumers. Therefore, the legal status of a platform should be determined by examining its actual function and degree of involvement rather than merely by the contractual designation contained in its terms and conditions. This functional approach is particularly relevant where AI is integrated into the platform's operational and commercial decision-making processes.

The utilization of AI further complicates the legal position of e-commerce platforms because AI may perform functions traditionally conducted by human employees. AI systems can recommend products, classify consumers, detect suspicious transactions, generate responses through chatbots, and process transaction-related information. Putra and Haq (2024) explain that the use of AI in e-commerce creates important legal issues concerning personal data and that existing Indonesian regulations, including the Personal Data Protection Law, the Electronic Information and Transactions Law, and Government Regulation Number 71 of 2019, provide relevant legal foundations for addressing these issues.

From a legal perspective, however, the AI system itself should not automatically be treated as an independent legal subject. The legal responsibility must instead be connected to the natural person or legal entity that develops, controls, operates, deploys, or benefits from the AI system. Consequently, when an AI system causes harm during an e-commerce transaction, the relevant legal inquiry should focus on the relationship between the platform's control over the system and the resulting legal consequences.

The legal status of the platform is also closely connected to consumer protection. Law Number 8 of 1999 concerning Consumer Protection establishes fundamental rights for consumers, including the right to obtain correct, clear, and honest information concerning goods and services and the right to obtain compensation where goods or services cause losses. When AI is used to provide product information or recommendations, questions may arise concerning whether information generated by an AI system satisfies the legal requirement of accuracy and clarity. For example, if an AI chatbot provides materially inaccurate information regarding the characteristics, price, availability, or terms of a product and the consumer relies upon that information when completing a transaction, the platform's role cannot be assessed solely by referring to the fact that the response was generated automatically. The relevant consideration is whether the platform designed, deployed, supervised, or benefited from the AI system and whether reasonable safeguards were implemented to prevent foreseeable consumer harm. Recent research

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concerning AI chatbot misinformation in e-commerce similarly identifies uncertainty regarding platform liability when automated systems provide information that potentially harms consumers.

Another important aspect concerns the protection of personal data processed by AI-based e-commerce systems. AI-driven platforms frequently process consumer information to create personalized recommendations, analyze purchasing patterns, identify potential fraud, and improve commercial services. Law Number 27 of 2022 concerning Personal Data Protection provides a specific legal framework concerning the processing and protection of personal data in Indonesia. Junaidi and Fadzil (2024) argue that the use of AI in e-commerce creates an urgent need for stronger legal protection because AI-based processing may involve extensive collection and analysis of consumer data while specific AI-related implementing mechanisms remain under development. Accordingly, the legal status of an e-commerce platform should also be assessed according to its position in the processing of personal data. Where the platform determines the purposes and means of processing personal data, its obligations may differ from those of other actors involved in the digital ecosystem. This distinction is important because a platform exercising substantial control over AI-based data processing may bear corresponding legal obligations regarding security, transparency, and accountability.

The determination of liability should therefore consider the degree of control and involvement exercised by the e-commerce platform. A platform that merely provides technical infrastructure may have a different legal position from a platform that actively designs, controls, and deploys AI systems affecting consumer transactions. This approach is consistent with recent Indonesian legal scholarship concerning digital platform liability, which argues that the traditional distinction between intermediary and active platform becomes increasingly difficult to maintain when platforms exercise substantial algorithmic control over content and transactions. Denov *et al.* (2026) propose that platform responsibility should be assessed according to the level of control exercised by the platform rather than relying exclusively on its formal status as an intermediary. Such an approach may provide a more appropriate basis for assessing liability in AI-assisted commerce because it recognizes that greater technological control may correspond to greater legal responsibility. Nevertheless, the application of liability must remain grounded in the applicable statutory provisions and established principles of Indonesian civil and consumer law.

Based on the foregoing analysis, the existing Indonesian legal framework provides several legal foundations for determining the status of e-commerce platforms involved in AI-assisted transactions, but it does not yet establish a comprehensive and specific regime governing AI-related platform liability. The combination of the Consumer Protection Law, Electronic Information and Transactions Law, Personal Data Protection Law, and Government Regulation concerning Trading Through Electronic Systems can provide a basis for addressing particular forms of misconduct or consumer loss, but questions concerning algorithmic transparency, automated decision-making, allocation of responsibility, and AI-specific risk management remain insufficiently detailed. This regulatory condition creates a need for further development of Indonesian digital commerce law. Future regulation should clarify the obligations of platforms according to their degree of control over AI systems, require appropriate transparency and human oversight, establish mechanisms for addressing AI-generated errors, and provide accessible remedies for consumers. Such an approach would help reconcile technological innovation with legal certainty, accountability, and consumer protection in Indonesia's rapidly developing digital trade environment.

B. Liability of E-Commerce Platforms Regarding Transactions Utilizing Artificial Intelligence in Digital Trade in Indonesia

The development of Artificial Intelligence (AI) in digital trade has significantly transformed the relationship between consumers, merchants, and e-commerce platforms. AI is no longer merely used for administrative functions but has increasingly been integrated into product recommendations, advertising, product descriptions, customer services, and other decision-making processes. This development raises important legal questions concerning liability when AI-generated information is inaccurate, misleading, discriminatory, or causes losses to consumers. In Indonesia, the liability of e-commerce platforms in AI-based transactions cannot be separated from the legal framework governing Electronic Commerce (*Perdagangan Melalui Sistem Elektronik/PMSE*), electronic system providers, consumer protection, and personal data protection. Government Regulation No. 80 of 2019 concerning Trading Through Electronic Systems (PP No. 80/2019) constitutes one of the principal legal foundations for regulating electronic commerce and establishes obligations for parties involved in electronic trading activities.

The legal position of e-commerce platforms has become more specific following the enactment of Minister of Trade Regulation No. 19 of 2026 concerning the Implementation of Trading Through Electronic Systems (*Permendag No. 19/2026*). This regulation, effective from 8 June 2026, expressly regulates the utilization of AI in PMSE. It provides that business actors may use AI in electronic trading activities but remain responsible for its utilization. For PMSE operators (*Penyelenggara Perdagangan Melalui Sistem Elektronik/PPMSE*), the regulation requires the establishment of internal AI governance that is proportionate to the level of risk and the provision of mechanisms for complaints and corrections concerning information, recommendations, promotions, or

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services generated through AI. These provisions demonstrate that e-commerce platforms cannot automatically avoid liability by arguing that the harmful output was generated autonomously by an AI system. Rather, liability may be assessed based on the platform's role, control, and involvement in the development and implementation of the AI system.

The liability of e-commerce platforms must also be examined from the perspective of consumer protection law. Law No. 8 of 1999 concerning Consumer Protection establishes general rights and protections for consumers in Indonesia, including protection against goods or services that do not correspond to the information provided by business actors. In AI-based transactions, a significant legal issue concerns whether inaccurate information originates from the merchant, the platform, or the AI system operated by the platform. Where an e-commerce platform actively uses AI to generate product descriptions, personalize recommendations, determine advertisements, or influence consumer purchasing decisions, its position may extend beyond that of a passive intermediary. Permendag No. 19/2026 requires information concerning goods or services generated, displayed, recommended, or promoted through AI to be accurate, clear, and accountable. Therefore, the platform's liability should be assessed by considering the extent of its control over the AI system and the extent to which its actions or omissions contributed to the consumer's loss.

Another important dimension of platform liability concerns the protection of personal data. AI systems used by e-commerce platforms generally depend on the collection and processing of substantial amounts of consumer data, including information concerning purchasing behavior, preferences, and interactions with digital platforms. Law No. 27 of 2022 concerning Personal Data Protection (PDP Law) regulates the rights of data subjects as well as the obligations of personal data controllers and processors. Consequently, when an AI system processes consumer data to create profiles, generate recommendations, or personalize commercial offers, the platform must ensure that such processing complies with the requirements of the PDP Law. Permendag No. 19/2026 further requires business actors utilizing AI to protect consumers, business actors, personal data, and intellectual property rights in accordance with applicable legislation. Accordingly, misuse or unauthorized disclosure of personal data through AI may create a separate basis for legal liability under Indonesian personal data protection law, in addition to liability arising from the underlying e-commerce transaction.

The liability of e-commerce platforms can also be considered in light of their status as Electronic System Providers (*Penyelenggara Sistem Elektronik/PSE*). Government Regulation No. 71 of 2019 concerning the Implementation of Electronic Systems and Transactions establishes obligations concerning the reliability, security, and proper operation of electronic systems. Furthermore, Law No. 1 of 2024, which constitutes the second amendment to the Electronic Information and Transactions Law, provides the broader legal framework for electronic transactions in Indonesia. In relation to AI, these provisions are complemented by Minister of Communication and Informatics Circular Letter No. 9 of 2023 concerning AI Ethics, which identifies principles including inclusivity, humanity, security, accessibility, transparency, credibility and accountability, personal data protection, and intellectual property protection. Although the circular letter primarily functions as an ethical guideline rather than a comprehensive liability regime, its principles are relevant in determining appropriate standards of governance and diligence for platforms implementing AI in digital commerce.

Based on the existing regulatory framework, the liability of e-commerce platforms for transactions utilizing AI in Indonesia should be understood according to the platform's function, degree of control, level of risk, and involvement in the transaction. Permendag No. 19/2026 provides a more explicit legal basis by requiring PPMSEs to establish risk-proportionate internal AI governance and mechanisms for complaints and corrections. Therefore, the legal responsibility of a platform may differ depending on whether AI is used merely as an administrative tool or whether it is used to generate product information, recommend products, conduct promotional activities, or otherwise influence consumer decisions. A central legal challenge remains the establishment of causation between the AI-generated output, the platform's conduct or omission, and the consumer's actual loss. The Indonesian regulatory framework consequently indicates an emerging risk-based approach to AI accountability, in which the obligations and potential liability of an e-commerce platform become more significant as its control and involvement in AI-enabled commercial activities increase.

III. CONCLUSIONS

The use of Artificial Intelligence (AI) in e-commerce transactions in Indonesia has created new legal challenges concerning the legal status and liability of digital platforms. E-commerce platforms cannot be regarded merely as passive intermediaries when they actively utilize AI to recommend products, determine prices, process transactions, detect fraud, or make other decisions that may directly affect consumers. Under the existing Indonesian legal framework, including the Consumer Protection Law, Electronic Information and Transactions Law, Personal Data Protection Law, and Government Regulation concerning Trading Through

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Electronic Systems, liability may be imposed based on the platform's role, obligations, and contribution to the occurrence of loss. However, the existing framework does not yet specifically regulate the allocation of liability for losses arising from AI-assisted decision-making. Therefore, greater legal certainty is required regarding the responsibility of platforms, particularly in situations involving algorithmic errors, inaccurate information, discriminatory outcomes, system failures, or violations of consumer and personal data rights.

The Indonesian Government should develop a more specific and integrated regulatory framework governing the use of AI in digital trade by clarifying the legal status, obligations, and liability of e-commerce platforms that utilize AI systems. Such regulation should establish principles of transparency, accountability, human oversight, risk management, consumer notification, and mechanisms for resolving disputes arising from AI-assisted transactions. E-commerce platforms should also implement internal AI governance mechanisms, conduct regular risk assessments and audits, maintain adequate records of automated decision-making processes, and provide accessible remedies for consumers who suffer losses. Furthermore, future research should examine the application of comparative legal approaches from jurisdictions that have established more detailed AI governance frameworks, while ensuring that any regulatory development remains consistent with Indonesian commercial law, consumer protection, and personal data protection principles.

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