ISNU Nine-Star Multidisciplinary Journal (INS9MJ)
(eISSN: 3063-8984)
Volume 2, Number 3, Desember 2025 (181-188)

Integration of AI Technology in E-Commerce as an Effort to Realize Consumer Protection Law

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Info Articles

Article History
Received: 2025-11-05
Revised: 2025-11-20
Published: 2025-12-30

Keywords:
E-commerce; Technology; Law; Protection; Consumers

Abstract

An agreement is a legal act carried out by two or more parties, where one party is obliged to do something, while the other party is entitled to the fulfillment of obligations. Along with the development of the times, there has been a new breakthrough in making transactions, namely through electronic media facilities or what can be called e-commerce. Therefore, this study focuses on how the Validity of Sale and Purchase Agreements Through E-Commerce Platforms is reviewed based on Indonesia's Positive Law and How Legal Protection for Consumers for Sale and Purchase Agreements Through Electronic Transactions Based on the Consumer Protection Law. This study uses a normative juridical research method, with analytical descriptive research specifications using data sourced from several previous studies. This research concludes that Sale and Purchase Agreements through E-Commerce Platforms can be considered valid as long as they remain subject to the Civil Code and the ITE Law. In addition, legal protection for consumers can be realized in two forms of regulation, one of which is legal protection through legislation, in this case Law No. 8 of 2010 concerning consumer protection. Protection for merchants in buying and selling transactions through e-commerce platforms that merchants have their rights as legal protection in accordance with Article 6 of the Consumer Protection Law.

I. INTRODUCTION

The development of technology in terms of communication today presents sophistication where humans can do everything through one device. In addition, the development of this technology gradually indirectly contributes to changing human behavior as a whole in daily life. Another evidence of today's technological developments that is the most obvious to date is the internet, which in its history created a new world or cyberspace. Cyberspace is a world of computer-based communication (computer mediated communication) in the form of reality in the form of virtual reality (Wiwik Meilarati, 2017). The internet as a medium of information and electronic communication has been widely used for various activities, including browsing, surfing, searching for data and news, sending messages to each other via email, and trading. Online is the state of a computer that is connected or connected to the internet network. Actually, online can not only be connected through computer devices but currently it can also be accessed through cellphones (mobile phones) which makes it easier to connect between regions without the need for much time. Today's trade transactions are not only carried out conventionally, but also electronically known as e-commerce. E-commerce transactions have become a trend in recent years. E-commerce is one of the biggest players in digital business in Indonesia. Based on data released by Katadata, in 2021 the value of Digital Economy transactions in Indonesia continues to increase. In 2019, the gross transaction value of the digital economy reached US$ 40 billion or equivalent to Rp 568 trillion (exchange rate of Rp 14,200). Research by Google, Temasek, and Bain & Company predicts that the value will increase to US$ 70 billion (Rp 996 trillion) in 2021. This value can even increase more than twice to US$ 146 billion (Rp 2,079 trillion) in 2025 (Abdul, 2023). E-commerce is a means in the form of a website or online application that facilitates the buying and selling process of various stores. Concept E.

Commerce is similar to a conventional market, which is a place where a person can sell his merchandise. E-commerce as the venue provider is not responsible for the goods sold on the E-commerce, because their job is to provide a place for sellers who trade and help them to meet customers online and make transactions practically and efficiently (Abdul, 2023). Buying and selling through this e-commerce platform involves two parties, namely the seller of goods or services (merchant) and buyer. In this buying and selling activity, merchants can usually post or advertise their products through a website or website, either through the provision of commercial website services or through their own website. On the other hand, if consumers are interested, they can directly contact the merchant through the site or application and then make transactions or payments online. The birth of Law Number 11 of 2008 concerning Information and Electronic Transactions (ITE Law) is a solution to provide protection for perpetrators of transactions in cyberspace (Abdul, 2023).

In Indonesia, the regulation of agreements, especially electronic agreements, is subject to the Civil Code (KUHPer) and the ITE Law. Article 1457 of the Civil Code stipulates that Buying and Selling is an agreement in which one party binds himself to hand over an object and the other party pays at an agreed price. When we talk about buying and selling transactions, of course it cannot be separated from the issue of agreement because basically every buying and selling process begins with an agreement where the agreement is outlined in an agreement (Nur & Nabilah, 2019). Based on Article 1313 of the Civil Code, an agreement is an act by which one or more people bind themselves to one or more people. An agreement is a legal act carried out by two or more parties, where one party is obliged to do something, while the other party has the right to fulfill the obligations of the other party. The types of sale and purchase agreements can be divided into two, namely: B2B (Business to Business) and B2C (Business to Customer). A business to business sale and purchase agreement is an agreement for buying and selling transactions from one business intended for another business and not for consumers directly. Meanwhile, a business-to-customer buying and selling agreement is a sale and purchase agreement between the seller and directly with the buyer, this system is a system that is usually carried out in terms of buying and selling (Nur & Nabilah, 2021).

II. RESEARCH METHODS

The research method used in this study is a normative juridical approach. The normative juridical approach is an approach that is carried out based on the main legal material by examining the theories, concepts, legal principles and laws and regulations related to this research. Furthermore, the author uses analytical descriptive research specifications to produce a complex data in solving problems and containing meanings that significantly affect the substance of the research. This research is sourced from legal materials that are relevant to the research topic. In this case, the author uses 3 main legal materials, namely primary legal materials consisting of laws and regulations, secondary legal materials consisting of books and previous research results, and tertiary legal materials in the form of journals. The technique used for data collection in this study is by way of literature study, which is the process of inventorying, processing and producing conclusions based on legal materials or sources obtained and relevant to solving problems in this study. Then this research is analyzed qualitatively guided by the juridical level as a positive law and then analyzed qualitatively based on the legal materials that have been inventoried to finally process data to obtain a comprehensive conclusion.

III. RESULTS AND DISCUSSION

A. Legal Protection for Consumers in Online Buying and Selling Transactions (E-Commerce)

Broadly speaking, there are several problems experienced by consumers in buying and selling transactions carried out online (e-commerce), including (Kharisma & Aryani, 2022):

1. Consumers cannot directly identify, see, or touch the goods to be ordered
2. Unclear information about the products offered and/or uncertainty whether the consumer has obtained various information that deserves to be known, or that should be needed to make a decision in making a transaction
3. Unclear legal subject status of business actors
4. There is no guarantee of transaction security, privacy and an explanation of the risks associated with the system used, especially in the case of electronic payments
5. Unbalanced risk burdening, because in general, for online buying and selling, payment has been paid in advance by the consumer, while the goods are not necessarily received or will follow later, because the existing guarantee is a guarantee of delivery of goods not the receipt of goods
6. Transactions that are cross-border borderless, raise questions about the legal jurisdiction of which country is enforced.

The protection that consumers should have is actually broad, including consumer protection of goods and/or services starting from the stage of activities to obtain the goods and/or services to the consequences arising from the use of the goods and/or services. There are two aspects related to consumer protection coverage, including (Kharisma & Aryani, 2022):

1. Protection against the possibility of goods being handed over to consumers not in accordance with what has been agreed
2. Protection against the imposition of unfair conditions on consumers. In addition, legal protection for consumers in online and conventional buying and selling transactions can also be realized in the following form (Kharisma & Aryani, 2022):
   a) Legal protection based on laws and regulations Legal protection that comes from laws and regulations has a general nature for everyone who makes a transaction.
   b) Legal protection based on agreements made between parties The definition of an agreement is explained based on Article 1313 of the Civil Code, namely an agreement is an act in the name of one or more people binding itself to one or more people. An agreement is considered valid if it meets the conditions for the validity of the agreement stipulated in the Civil Code, including:
      1) Agreement of the parties (Article 1321 of the Civil Code)
      2) Competence of the parties (Article 1329 of the Civil Code)
      3) Regarding a certain matter (Article 1333 of the Civil Code)
      4) Halal reasons (Article 1337 of the Civil Code)

In the ITE Law, the meaning of the agreement is not specifically explained. In Article 1 number 17 of the ITE Law, an agreement or electronic contract is defined as an agreement between the parties made through an Electronic System. Regarding the validity of the agreement or electronic contract, Article 18 paragraph (1) of the ITE Law states that the Electronic Transactions outlined in the Electronic Contract are binding on the parties (Kharisma & Aryani, 2022). Transactions made through e-commerce and transactions conventionally but through electronic media are basically a different thing. If the conventional transaction is carried out in the same way as the conventional agreement, there is only a slight difference as a result of the media used and the conversation or negotiation carried out between consumers and business actors is carried out through electronic media.

Meanwhile, related to e-commerce transactions is a system that is deliberately made to carry out buying and selling transactions. After making the payment, the business actor will fulfill his responsibility to deliver the goods and/or services to consumers. Everything related to e-commerce transactions is done using electronic media, both in terms of making agreements, payments and shipments (Kharisma & Aryani, 2022).

Article 1320 paragraph (1) of the Civil Code stipulates that one of the validity of a contract is the existence of an agreement between the parties. Agreement means that there is conformity of the will of the parties who make the agreement, so that in making an agreement there should be no coercion, error, and fraud (dwang, dwailing, bedrog). Behavior or other things that express the statement of will of the parties can be a form of statement of will, because the statement of will does not have to be stated expressly (Nur & Nabilah, 2021).

The principle of consensualism is reflected in the terms of agreement, where when referring to the theories of civil law, namely: statement theory, transmission theory, knowledge theory, and acceptance theory, with the existence of a consensus, a contract is born. In addition to referring to the provisions of Article 1320 to 1 of the Civil Code, the terms agreed upon in the e-commerce sale and purchase contract are also regulated in the provisions of the ITE Law as follows (Nur & Nabilah, 2021):

1. Article 6 stipulates that the element of agreement intended in an e-commerce transaction is if in the bidding process, the seller has displayed his goods and/or services online to be able to attract buyers or consumers by fulfilling the following elements: displayed, accessible, guaranteed to be intact, and accountable so as to explain a situation.
2. Article 8 stipulates that the element of agreement intended in an e-commerce transaction is related to the time of sending a message of consent from the buyer or consumer to the seller regarding the fulfillment of the delivery procedure set by the seller.
3. Article 10 stipulates that the elements of an agreement in e-commerce transactions will be fulfilled if the seller has guaranteed its integrity. To measure the integrity of each seller, a Reliability Certification Body was established.
4. Articles 11 and 12 stipulate that in showing an agreement as the validity of a contract, the parties must sign it. The signature in question is different from the signature on a conventional sale and purchase contract. Signatures in online contracts are done by electronic method or can be called e-signs. The provisions of the validity provisions that have been explained are components that must be fulfilled in the online contract.

B. AI Technology in E-commerce Against Automated Recommendations

In today's digital era, e-commerce is not only limited to websites and apps, but also expands to chat platforms such as WhatsApp, Instagram, Messenger, and live chat on websites. One of the features that is becoming increasingly popular is automatic product recommendations in chat conversations. This feature allows the system to suggest products to customers in real-time, based on customer interests, behaviors, or questions. Automated product recommendations are the process by which the system intelligently provides product suggestions to users without the need for direct human intervention. In the context of e-commerce chat, these recommendations are made within the conversational interface, either through an AI-based chatbot or through a human agent support system. For example, a customer typed: "I need a size 39 women's sneaker". The system responds by suggesting several shoes according to those preferences.

These systems typically incorporate several technologies and approaches:

1. Natural Language Processing (NLP) Understand customer intent and needs based on conversation text. Example: Interpret that "women's sports shoes" means a certain + gender + size.
2. Machine Learning & AI Uses machine learning models to predict which products customers are most likely to like. Based on purchase history, products viewed, demographics, and customer preferences.
3. Rule-Based System For simpler platforms, the system can use static rules such as: If the user says "laptop", display the laptop at the best-selling price.
4. Product Catalog and Database Integration The system needs access to product

inventory in real-time in order to recommend products that are still available.

C. The Role of Artificial Intelligence (AI) Technology in Realizing Consumer Protection Laws for E-commerce

The development of digital technology, especially e-commerce, has revolutionized the way people buy and sell goods and services. However, this rapid growth also poses new challenges in terms of consumer protection. The rise of online fraud, misuse of personal data, and misleading product information are some of the risks that consumers face. In this context, artificial intelligence (AI) plays an important role as a technological solution that not only improves the efficiency of e-commerce services, but also becomes an instrument to strengthen the implementation of consumer protection laws. With its big data analysis, automation, and algorithm-based decision-making capabilities, AI can help align digital business practices with consumer legal principles, such as security, fairness, and information disclosure.

1. AI in Ensuring Information Transparency

Product One of the basic rights of consumers according to Law No. 8 of 1999 concerning Consumer Protection is the right to obtain true, clear, and honest information about the products purchased. This is where the role of AI becomes very significant. Natural Language Processing (NLP) allows e-commerce systems to filter and standardize product descriptions so that they are not ambiguous or misleading. AI can verify product information by scanning various data sources to identify inconsistencies (e.g. market price differences or non-conforming materials). The AI-based review feature can separate genuine and fake testimonials, providing an accurate assessment based on other consumers' experiences. This means that, with AI, e-commerce platforms can automatically detect and remove information that contains elements of fraud or false advertising, which if left unchecked violates consumer protection laws.

2. AI as a Security Protection Tool

Transactions and Personal Data The right to a sense of security in using products and services is the main principle in consumer protection law. AI technology contributes greatly in this aspect through. A machine learning-based fraud detection system that can identify suspicious or abnormal transactions, thus protecting consumers from identity theft and credit card fraud. AI is able to identify patterns of cyberattacks and prevent unauthorized access to consumer data. With the use of smart encryption and biometric authentication, AI strengthens the security of user accounts in layers. In the midst of rampant data leaks, the AI approach also supports the implementation of the Personal Data Protection Law (PDP Law), which provides a legal basis for consumers to get protection against misuse of personal information.

3. Personalization vs. Non-Discrimination in Service

One of the advantages of AI is its ability to learn user preferences and provide relevant product recommendations. However, AI can also overstep and create algorithmic discrimination if left unsupervised. Examples of practices that violate consumer protection laws: Price discrimination based on geographic location, gender, or ethnic background. Use of personal data for aggressive marketing strategies without consent. With ethical and legal oversight, AI can actually support fair access to products and services, by providing fair recommendations, based on need, not based on algorithmic bias.

4. Service Automation and Handling of Consumer Complaints

AI provides 24/7 customer service through: AI-based chatbot that is able to handle complaints, answer product questions, and assist with the refund and return process. Analyze customer sentiment to recognize emotions and satisfaction levels, so that e-commerce can take corrective action quickly. Automated reporting system for violations of consumer rights (goods not arriving, damaged goods, poor service, etc.). With this system, consumers have easier access to their right to be heard and their disputes resolved properly, as guaranteed by law.

5. AI for Law Enforcement and Surveillance

Digital Consumer protection regulations not only require compliance of business actors, but also require active supervision mechanisms. AI can be used by: The Government (e.g. Ministry of Home Affairs, BPKN, Kominfo) to monitor e-commerce activities in real-time. AI systems can scan thousands of product catalogs to detect illegal, counterfeit, or those that endanger user safety. Compile an automatic blacklist of business actors who repeatedly violate consumer rights.

D. The Concept of Relationship Between Consumers and Business Actors on E Commerce Platforms

The term consumer comes from the English word consumer, or in Dutch "consumer", "consumer". A consumer is literally "a person who needs, spends, or uses; user or disabler". The definition of consumers juridically has been placed in various laws and regulations, such as UUPK Article 1 which formulates as follows that consumers are every person who uses goods and/or services available in society, either for the benefit of themselves, family, other people, or other living things and not for trade (Abdul, 2023). Munir Fuady said that consumers are end users of a product, namely every user of goods and/or services available in society, either for the benefit of themselves, family, other people, or other living beings and not for trade.

A consumer is any user of goods or services for their own needs, family or household, and not to produce goods/services to trade them again, or the existence of a consumer transaction which means the process of transferring ownership or enjoyment of goods or services from a provider of goods or services to consumers (Abdul, 2023). Article 4 of the UUPK states that consumer rights include; the right to choose goods and/or services and obtain such goods and/or services in accordance with the exchange rate and the conditions and guarantees promised; the right to true, clear, and honest information about the condition and warranty of goods and/or services; the right to get compensation, compensation and/or reimbursement, if the goods and/or services received are not in accordance with the agreement or are not as they should be (Cindy & Jeumpa, 2016).

Consumer rights are (C.S.T. Kansil, 2002):

1. the right to comfort, security, and safety in consuming goods and/or services;
2. the right to choose goods and/or services and obtain goods and/or services
3. in accordance with the exchange rate and the conditions and guarantees promised;
4. the right to true, clear, and honest information about the condition and warranty of goods and/or services;
5. the right to be heard and its complaints about the goods and/or services used;
6. the right to obtain advocacy, protection, and efforts to resolve consumer protection disputes appropriately;
7. the right to consumer guidance and education;
8. the right to be treated or served properly and honestly and non-discriminatory; The right to be treated or served correctly and honestly and non-discriminatory based on ethnicity, religion, culture, region, education, wealth, poor and other social status;
9. the right to compensation, compensation and/or reimbursement, if the goods and/or services received are not in accordance with the agreement or are not as they should be;
10. rights regulated in the provisions of other laws and regulations.

The obligations of consumers are (C.S.T. Kansil, 2002):

1. reading or following the instructions for information and procedures for the use or use of goods and/or services, for the sake of security and safety;
2. good faith in making transactions to purchase goods and/or services;
3. pay according to the agreed exchange rate;
4. Following the efforts to resolve consumer protection disputes legally.

The rights of business actors are (C.S.T. Kansil, 2002):

1. the right to receive payment in accordance with the agreement regarding the conditions and exchange rates of the goods and/or services traded;
2. the right to legal protection from the actions of consumers in bad faith;

3. the right to conduct a proper self-defense in the legal settlement of consumer disputes;
4. the right to rehabilitation of good name if it is legally proven that the loss of the consumer is not caused by the goods and/or services traded;
5. rights regulated in the provisions of other laws and regulations.

The obligations of business actors are (C.S.T. Kansil, 2002):

1. good faith in carrying out their business activities;
2. provide true, clear, and honest information about the condition and warranty of goods and/or services and provide an explanation of use, repair, and maintenance;
3. treat or serve consumers properly and honestly and non-discriminatoryly; Business actors are prohibited from discriminating against consumers in providing services. Business actors are prohibited from discriminating in the quality of service to consumers.
4. to ensure the quality of goods and/or services produced and/or traded in accordance with the provisions of the applicable quality standards of goods and/or services;
5. provide opportunities for consumers to test, and/or try certain goods and/or services and provide guarantees and/or warranties for goods made and/or traded; What is meant by certain goods and/or services is goods that can be tested or tried without causing damage or loss.
6. compensating, compensating, and/or compensating for losses resulting from the use, use, and utilization of traded goods and/or services;
7. provide compensation, compensation, and/or replacement if the goods and/or services received or utilized are not in accordance with the agreement.

Marketplace as an e-commerce platform is an online place where sellers can create an account and sell their merchandise. One of the advantages of selling on marketplaces is that sellers don't need to create a personal website or online store. Provide the seller with photos only need the product and upload it which is then equipped with a description of the product. Furthermore, if there is a buyer who wants to buy the product offered, the seller will be notified by the e-commerce system. As a relatively new marketing transaction channel, e-commerce contains more uncertainty and risk than conventional transactions. This is then a consideration for consumers to make purchases online (Dameria, Lennaria, Megaria & Mardaus, 2022).

In the current era of globalization and free trade, many kinds of goods/services have emerged that are marketed to consumers, both through promotions, advertisements, and direct offers. If they are not careful in choosing the desired product/service, consumers will only become the object of exploitation from irresponsible business actors. Without realizing it, consumers take the goods/services they consume for granted (Abdul, 2023).

Based on the explanation above, e-commerce transactions are a form of revival in the trading system in the form of transactions that provide convenience for the public in online buying and selling transactions. Inseparable from this progress, the form of e-commerce trade is growing more and more without limits. In fact, now e-commerce transactions are starting to spread to users of social network services, which is increasingly adding convenience to buying and selling transactions (Abdul, 2023).

IV. CONCLUSION AND SUGGESTIONS

A. Conclusion

Buying and selling transactions through E Commerce today and especially in the jurisdiction of Indonesia have grown rapidly. Indonesia already has its legal basis regarding consumer protection, namely Law Number 8 of 1999 concerning Consumer Protection, in addition to other laws and regulations regulating the same thing. Consumers in this case must be given various special protections which are very vulnerable to various possibilities that will harm the consumers themselves from business actors who do not have good faith in conducting online buying and selling transactions. Online transactions on behalf of business actors and consumers must each have good intentions from the beginning. Automated messaging is an essential tool in modern e-commerce.

By leveraging chatbot technology, automation, and data integration, businesses can maintain efficient, personalized, and timely communication with customers. This system not only improves operational efficiency, but also plays a big role in increasing customer satisfaction and loyalty. Automated product recommendations in e-commerce chat platforms are an essential technology to improve personalization, efficiency, and conversions in online sales. By leveraging NLP, machine learning, and powerful data integration, the system enables e-commerce to provide a smarter and more convenient shopping experience to customers directly from within the chat. As AI advances and omnichannel adoption, this feature is expected to become the standard in the global e-commerce industry in the future.

B. Suggestion

Consumers must be careful when purchasing online, so that there is no default. Where the Government must provide even stricter supervision for the parties who carry out this electronic transaction, namely by carrying out/requiring a registration of all activities related to the public interest in the electronic traffic, including registration of electronic business (e-commerce) in the form of virtual shops or other virtual services and the obligation to register a buyer in an operating company payment system so that the transaction process can run smoothly and no one party feels disadvantaged.

The integration of AI technology in e-commerce brings great opportunities to improve efficiency, speed, and convenience in shopping. However, at the same time, this technology must also be directed to realize and strengthen the legal principles of consumer protection. AI must help bring transparency, fairness, security, and accountability in every aspect of digital interactions. With the right setup, AI is not only a business tool, but also a guardian of consumer rights in the digital age.

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