Legal Education on Consumer Protection Against Fraud Practices in E-Commerce Transactions

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ARTICLE INFO

Article History:
Received May 20, 2026
Revised June 05, 2026
Accepted June 20, 2026
Available online June 30, 2026

Kata Kunci :
Perlindungan Konsumen, Literasi Digital, E-Commerce Fraud, Edukasi Hukum

Keywords:
Consumer Protection, Digital Literacy, E-Commerce Fraud, Legal Education

ABSTRAK

Perkembangan e-commerce dan layanan keuangan digital telah meningkatkan efisiensi transaksi, namun juga memperbesar risiko penipuan digital seperti phishing, penyalahgunaan data pribadi, informasi produk yang menyesatkan, dan praktik kontraktual yang merugikan konsumen. Kegiatan pengabdian kepada masyarakat ini bertujuan meningkatkan kesadaran hukum dan literasi digital masyarakat mengenai perlindungan konsumen dalam transaksi e-commerce. Program dilaksanakan dengan pendekatan partisipatif melalui observasi awal, penyusunan materi edukasi, penyuluhan hukum, diskusi interaktif, analisis kasus, dan pendampingan peserta. Materi mencakup hak dan kewajiban konsumen, perlindungan data pribadi, keamanan transaksi digital, penggunaan layanan pay later secara bertanggung jawab, serta mekanisme penyelesaian sengketa konsumen. Berdasarkan evaluasi sebelum dan sesudah kegiatan serta observasi selama diskusi, pemahaman peserta terhadap hak konsumen, kemampuan mengidentifikasi praktik penipuan daring, dan kesadaran menerapkan transaksi digital yang aman menunjukkan peningkatan yang signifikan. Kebaruan program ini terletak pada integrasi edukasi hukum perlindungan konsumen dengan penguatan literasi digital melalui pembelajaran berbasis kasus yang aplikatif sehingga mampu meningkatkan kapasitas masyarakat dalam menghadapi risiko transaksi elektronik. Secara praktis, program ini menyediakan model edukasi yang dapat direplikasi oleh pemerintah daerah, lembaga pendidikan, dan organisasi masyarakat untuk memperkuat perlindungan konsumen di era ekonomi digital. Ke depan, program serupa perlu dilaksanakan secara berkelanjutan dengan melibatkan lebih banyak pemangku kepentingan dan memanfaatkan platform digital agar jangkauan serta dampaknya semakin luas.

ABSTRACT

The rapid growth of e-commerce and digital financial services has enhanced the efficiency of commercial transactions while simultaneously increasing the risks of digital fraud, including phishing, personal data misuse, misleading product information, and unfair contractual practices. This community engagement program aimed to strengthen public legal awareness and digital literacy regarding consumer protection in e-commerce transactions. The program employed a participatory approach consisting of preliminary observation, preparation of educational materials, legal counseling, interactive discussions, case-based learning, and participant mentoring. The educational content covered consumer rights and obligations, personal data protection, digital transaction security, responsible use of pay later services, and consumer dispute resolution mechanisms. Based on pre- and post-activity evaluations together with participant observations during the sessions, participants demonstrated a significant improvement in their understanding of consumer rights, their ability to identify online fraud practices, and their awareness of conducting secure and responsible digital transactions. The novelty of this program lies in integrating consumer protection legal education with digital literacy through an application-oriented, case-based learning approach that strengthens community capacity to address risks in electronic commerce. Practically, the program offers a replicable educational model for local governments, educational institutions, and community organizations to enhance consumer protection in the digital economy. Future implementation should involve broader stakeholder collaboration and wider utilization of digital learning platforms to expand the program's sustainability and societal impact.

INTRODUCTION

The rapid growth of digital technology has significantly transformed commercial activities in contemporary society, particularly through the expansion of e-commerce transactions. Online marketplaces, digital payment systems, and financial technology services have created broader opportunities for consumers and business actors to conduct transactions efficiently and conveniently. Nevertheless, alongside these developments, various forms of fraud and consumer exploitation have also emerged within digital trading ecosystems. Fraudulent practices such as phishing, manipulation of product information, misuse of consumer data, hidden contractual clauses, and abuse of pay later services increasingly threaten consumer security in online transactions. These conditions indicate that the advancement of digital commerce has not always been accompanied by adequate public understanding regarding legal protection and consumer rights in electronic transactions (Achmad, 2023; Agusthin et al., 2024).

In Indonesia, consumer vulnerability in e-commerce transactions continues to increase due to limited digital literacy and weak legal awareness among the public. Many consumers still lack understanding regarding complaint mechanisms, contractual transparency, data privacy protection, and legal remedies available when they experience losses in online transactions. Several studies emphasized that digital financial services and e-commerce platforms often position consumers in weaker bargaining positions, especially in transactions involving pay later systems and online financing mechanisms (Dharmadji & Sulistiyantoro, 2023; Herlina & Yuliati, 2022). Furthermore, the misuse of personal data and cybercrime activities such as phishing have become serious concerns in the digital economy landscape because consumers frequently fail to recognize potential legal risks in online interactions (Pratiwi et al., 2024; Agusthin et al., 2024). Therefore, strengthening legal literacy and consumer awareness has become increasingly important in ensuring safe and fair digital transactions.

Previous studies have extensively discussed legal protection in digital economic activities from normative and juridical perspectives. Ariyanto et al. (2021) examined seller liability for hidden defective products in online transactions and highlighted the importance of strict legal responsibility in protecting consumers. Hafid et al. (2024) analyzed e-commerce transactions from the perspective of Islamic economic law through the application of khiyar principles, emphasizing fairness and consumer rights in digital trade. Meanwhile, Gayo et al. (2024) focused on the legal obligations of digital platform providers in ensuring consumer protection within online business systems. Research conducted by Kornelis (2022) also explored challenges in consumer protection within digital banking services, particularly regarding regulatory adaptation in the digital era. In addition, Yuwono and Santiago (2024) reevaluated the effectiveness of Indonesia’s Consumer Dispute Settlement Agency (BPSK) in addressing consumer protection disputes in modern commercial practices. These studies collectively demonstrate that consumer protection issues in digital transactions remain highly relevant and require continuous legal reinforcement.

Despite the growing body of literature on consumer protection and digital transactions, most previous studies have concentrated primarily on doctrinal legal analysis, regulatory evaluation, and theoretical discussions concerning consumer rights. Limited attention has been devoted to community-based legal education and practical empowerment initiatives aimed at increasing public awareness regarding fraud prevention in e-commerce activities. In particular, there remains a lack of community service programs that integrate legal literacy, digital literacy, and preventive consumer protection strategies directly within society. This gap demonstrates the necessity of practical educational initiatives that not only explain legal norms but also empower consumers to identify and respond to fraudulent practices in digital marketplaces.

The novelty of this community service program lies in its integrative approach combining legal education, digital consumer awareness, and preventive strategies against e-commerce fraud within community-based activities. Unlike previous studies that focused predominantly on normative legal frameworks, this program emphasizes practical legal empowerment through direct education regarding consumer rights, identification of fraudulent schemes, protection of personal data, and mechanisms for legal complaint resolution in online transactions. Furthermore, this service activity incorporates contemporary regulatory developments related to digital consumer protection, including financial service regulations and accountability principles in digital finance systems (Otoritas Jasa Keuangan, 2023; Wulandari, 2024). The integration of legal awareness with digital literacy is expected to strengthen community resilience against increasingly complex cyber fraud practices in e-commerce transactions.

This community service activity aims to improve public understanding regarding legal protection for consumers in e-commerce transactions and to strengthen community awareness of fraudulent practices in digital marketplaces. In addition, the program seeks to educate participants concerning their legal rights and obligations as digital consumers, promote safer online transaction behavior, and encourage the utilization of legal protection mechanisms available under Indonesian consumer protection regulations. Through this initiative, communities are expected to possess stronger legal literacy and greater preparedness in responding to risks emerging within the rapidly developing digital economy ecosystem.

METHOD

This community service activity was conducted using a participatory legal education approach aimed at improving public understanding of consumer protection in e-commerce transactions. The program focused on increasing legal awareness, digital literacy, and preventive knowledge regarding fraud practices commonly found in online marketplaces and digital financial services. The target participants consisted of community members, online shoppers, small business actors, and students who actively use e-commerce platforms in their daily activities.

The implementation of the service program was carried out through several systematic stages. The first stage involved preliminary observation and problem identification. At this stage, the service team conducted informal discussions and simple field observations to identify the participants' level of understanding regarding consumer rights, online transaction risks, phishing practices, misuse of personal data, and dispute resolution mechanisms in digital transactions. The findings from this stage became the basis for preparing educational materials and determining the most relevant learning methods for participants.

The second stage was the preparation of educational materials and learning instruments. The materials focused on several important topics, including consumer rights in e-commerce transactions, legal protection under Indonesian consumer protection law, safe online transaction practices, recognition of fraudulent schemes in digital marketplaces, protection of personal data, and complaint procedures when consumers experience losses. In addition, practical examples of online fraud cases were included to provide participants with contextual understanding and improve their ability to identify risks in digital transactions.

The third stage was the implementation of legal education and training activities. The educational sessions were conducted through interactive lectures, group discussions, question-and-answer sessions, and case study analysis. Participants were encouraged to actively share their experiences related to online shopping and digital transaction problems. The service team also provided demonstrations on how to verify trusted online stores, recognize suspicious digital links, secure personal information, and understand transaction evidence in electronic commerce activities. This interactive approach was intended to create active participant involvement and strengthen practical understanding of legal protection mechanisms.

The fourth stage involved mentoring and consultation activities. Participants who experienced difficulties or had specific concerns regarding e-commerce transactions were given opportunities to consult directly with the service team. This mentoring activity aimed to help participants better understand preventive legal measures and appropriate actions when facing fraud or consumer losses in digital transactions.

The final stage was evaluation and reflection. Evaluation was conducted by observing participant responses, participation levels, and understanding before and after the educational activities. The success of the program was measured through increased participant awareness regarding consumer rights, fraud prevention strategies, and legal protection mechanisms in e-commerce transactions. The results of this community service activity are expected to contribute to strengthening community legal literacy and promoting safer digital transaction practices in society.

RESULT AND DISCUSSION

Legal Awareness of Consumer Rights in E-Commerce Transactions

The rapid expansion of e-commerce has transformed consumer behavior and commercial practices in modern society. Digital marketplaces, online payment systems, and financial technology services have provided consumers with greater convenience, efficiency, and accessibility in conducting transactions. However, the increasing dependence on digital transactions has also generated various legal challenges related to consumer protection, transparency, data security, and fraudulent activities. In many cases, consumers participate in e-commerce transactions without fully understanding their legal rights and obligations, thereby placing them in vulnerable positions within digital commercial relationships (S et al., 2025). Consequently, strengthening legal awareness among consumers has become an essential component in promoting secure and fair e-commerce practices.

Legal awareness in e-commerce transactions refers to the public's understanding of consumer rights, legal protections, contractual obligations, and available dispute resolution mechanisms within digital commerce activities. Consumers who possess adequate legal awareness are generally more capable of recognizing unfair business practices, identifying fraudulent schemes, and protecting themselves from financial and personal losses. Conversely, weak legal literacy often causes consumers to ignore transaction risks, accept unclear contractual terms, and become easy targets for online fraud and manipulation (Iskandar & Putri, 2024). Therefore, legal education plays a vital role in enhancing public understanding regarding safe digital transaction practices and consumer protection regulations.

One of the primary issues in e-commerce transactions involves the imbalance of information between business actors and consumers. Many online consumers do not carefully review transaction terms, product descriptions, or payment agreements before completing purchases. This condition frequently results in disputes concerning defective products, misleading advertisements, hidden fees, or unauthorized financial charges. Ariyanto et al. (2021) emphasized that sellers in online transactions have legal responsibility for hidden product defects that may harm consumers. This responsibility demonstrates that consumers are entitled to receive accurate information and quality products as part of their fundamental rights in commercial transactions. However, without sufficient legal awareness, many consumers fail to assert these rights effectively when they experience losses.

The growing popularity of pay later services within e-commerce platforms has also introduced new legal and financial risks for consumers. Digital financing systems often attract consumers with promises of convenience and flexible payments, yet many users do not fully understand the contractual consequences and financial obligations associated with such services. Several studies found that consumers frequently encounter hidden interest rates, unclear penalties, and aggressive collection practices in pay later systems (Achmad, 2023; Dharmadji & Sulistiyantoro, 2023). Herlina and Yuliati (2022) further explained that consumers using pay later services are vulnerable to pressure from business actors due to inadequate transparency and weak bargaining positions. These conditions indicate that legal awareness regarding contractual rights and financial obligations is highly necessary in digital financial transactions.

In addition to financial risks, the issue of personal data protection has become increasingly significant within e-commerce activities. Online transactions require consumers to provide personal information such as phone numbers, addresses, identification data, and banking details. Unfortunately, many consumers remain unaware of how their personal data may be collected, processed, or misused by irresponsible parties. Pratiwi et al. (2024) explained that weaknesses in personal data protection within e-commerce transactions create opportunities for cybercrime, identity theft, and digital fraud. Similarly, phishing crimes in digital banking services have emerged as major threats to consumer security because cybercriminals often exploit consumers' limited digital literacy and legal understanding (Agusthin et al., 2024). Therefore, increasing consumer awareness regarding digital security and data privacy has become an important aspect of legal education in e-commerce environments.

Legal awareness is also closely related to transparency and accountability within digital financial services. Consumers have the right to obtain clear information regarding contractual terms, payment systems, transaction risks, and complaint procedures before agreeing to online transactions. Prasetyo and Halim (2023) argued that contractual transparency is a fundamental principle in ensuring fair treatment for consumers in online financial services. Likewise, Wulandari (2024) emphasized that accountability and transparency in digital finance regulations are essential for strengthening consumer trust and legal certainty in digital markets. These principles are further reinforced through the issuance of the Financial Services Authority Regulation Number 22 of 2023 concerning consumer and public protection in the financial services sector, which aims to improve fairness, transparency, and legal safeguards for consumers in digital financial activities (Otoritas Jasa Keuangan, 2023).

From the perspective of Islamic economic law, consumer protection in e-commerce transactions is also associated with ethical values, fairness, and mutual consent between parties. Hafid et al. (2024) explained that the application of khiyar principles in e-commerce transactions provides consumers with opportunities to reconsider transactions and ensure fairness in digital trade. Such principles demonstrate that consumer rights are not only recognized in positive legal systems but also supported within Islamic economic perspectives emphasizing justice, honesty, and transparency in commercial interactions. These values are particularly important in preventing exploitation and protecting consumers from deceptive online business practices.

Furthermore, the effectiveness of consumer protection frameworks depends not only on regulations but also on institutional support and dispute resolution mechanisms. Yuwono and Santiago (2024) highlighted the importance of reevaluating the role of Indonesia's Consumer Dispute Settlement Agency (BPSK) in addressing contemporary consumer disputes arising from digital commerce. Consumers who understand available legal institutions and complaint procedures are more likely to pursue legal remedies when experiencing unfair treatment in e-commerce transactions. Nevertheless, many consumers remain unfamiliar with complaint mechanisms and legal channels for resolving digital transaction disputes. This situation demonstrates the continuing need for community-based legal education programs focusing on practical consumer protection knowledge.

Legal awareness serves as a preventive instrument that empowers consumers to participate more safely and responsibly in digital economic activities. Consumers who understand their legal rights are generally more cautious in selecting online sellers, reviewing contractual agreements, protecting personal information, and responding to suspicious transaction activities. In the broader context, strengthening legal awareness also contributes to creating healthier digital marketplaces characterized by fairness, accountability, and consumer trust. Therefore, continuous legal education and public literacy programs are essential to support sustainable consumer protection within the rapidly evolving e-commerce ecosystem.

Forms and Impacts of Fraud in Digital Marketplace Activities

The rapid development of digital marketplace activities has significantly transformed the way consumers and business actors conduct commercial transactions. E-commerce platforms, online financial services, and digital payment systems provide convenience, speed, and flexibility for modern society. Nevertheless, the increasing reliance on digital transactions has also contributed to the emergence of various forms of fraud that threaten consumer security and legal certainty. Fraud in digital marketplace activities has become one of the most serious challenges within the digital economy because technological advancement is frequently exploited by irresponsible individuals and business actors to deceive consumers for financial gain (S et al., 2025). Consequently, understanding the forms and impacts of fraud has become essential in strengthening consumer protection within digital commercial ecosystems.

One common form of fraud in digital marketplace activities involves misleading product information and hidden product defects. In many online transactions, consumers purchase goods based solely on digital descriptions and images provided by sellers without direct physical verification. This condition creates opportunities for dishonest sellers to manipulate product specifications, conceal defects, or provide false advertisements that do not match the actual quality of goods received by consumers. Ariyanto et al. (2021) explained that hidden defective products in online transactions often place consumers in disadvantaged positions because proving seller responsibility in digital transactions can be more complicated than in conventional trade. Such practices not only violate consumer rights but also undermine trust in digital marketplaces.

Another significant form of fraud relates to phishing and cybercrime activities targeting consumers within digital financial systems. Phishing schemes generally occur when cybercriminals impersonate trusted institutions or digital platforms to obtain sensitive consumer information such as passwords, account numbers, verification codes, and banking credentials. Consumers who lack digital literacy and legal awareness are highly vulnerable to these deceptive practices. Agusthin et al. (2024) emphasized that phishing crimes in digital banking services continue to increase due to the growing use of online financial applications and consumers' limited understanding of cyber security risks. Similarly, Dluha and Ariska (2021) noted that internet banking users often become victims of digital fraud because many consumers fail to recognize suspicious links, fake communication channels, and unauthorized transaction requests. These cybercrimes not only result in financial losses but also create psychological insecurity among digital consumers.

Fraudulent practices are also increasingly associated with the expansion of pay later systems integrated within e-commerce platforms. Pay later services offer consumers opportunities to purchase products through deferred payment mechanisms, often with minimal verification procedures. Although such systems provide convenience and financial flexibility, they also generate significant risks related to hidden interest rates, excessive penalties, and misleading contractual terms. Achmad (2023) explained that legal problems frequently arise because consumers do not fully understand the financial obligations contained within digital financing agreements. Likewise, Dharmadji and Sulistiyantoro (2023) found that many users of pay later services experience difficulties due to unclear contractual information and aggressive debt collection practices. Consumers are often attracted by promotional offers without carefully examining the legal consequences of delayed payments or accumulated interest charges.

In addition, manipulative contractual practices have become another form of fraud in digital marketplace activities. Many online service providers utilize standard electronic contracts that are difficult for consumers to understand because of complex legal language and hidden clauses. Consumers frequently agree to terms and conditions without fully reading or comprehending the contents of digital agreements. Prasetyo and Halim (2023) argued that lack of contractual transparency creates unequal bargaining positions between consumers and digital service providers. In such situations, consumers may unknowingly waive certain rights or accept unfair contractual obligations that favor business actors. Wulandari (2024) further emphasized that transparency and accountability are fundamental principles required to ensure fairness within digital financial services and e-commerce transactions. Without clear and accessible information, consumers remain vulnerable to exploitation and deceptive contractual arrangements.

Personal data misuse has also emerged as a major concern in digital marketplace fraud. E-commerce platforms routinely collect personal information from consumers, including names, addresses, phone numbers, identification data, and financial details. However, weak data protection mechanisms and irresponsible platform management often expose consumers to privacy violations and unauthorized use of personal information. Pratiwi et al. (2024) explained that inadequate legal protection of personal data within e-commerce transactions increases the risk of identity theft, unauthorized financial activities, and cyber exploitation. Fraudsters may use stolen consumer information for illegal transactions, fraudulent loans, or phishing operations targeting additional victims. Such practices demonstrate that digital marketplace fraud extends beyond direct financial deception and increasingly involves broader cyber security threats affecting consumer privacy and trust.

The impacts of fraud in digital marketplace activities are multidimensional and affect consumers economically, psychologically, and socially. Financial losses represent the most immediate consequence experienced by victims of online fraud. Consumers may lose money through fake transactions, unauthorized account access, hidden fees, or fraudulent financial schemes. In many cases, victims also face difficulties recovering lost funds because dispute resolution mechanisms in digital transactions are often complicated and time-consuming (Yuwono & Santiago, 2024). Furthermore, fraud victims may experience emotional stress, anxiety, and loss of confidence in digital transaction systems. Continuous exposure to online fraud can reduce public trust in e-commerce platforms and hinder the sustainable development of digital economic activities.

The impacts of fraud are particularly significant for vulnerable consumers with limited legal and digital literacy. Iskandar and Putri (2024) explained that low financial and legal literacy levels make consumers more susceptible to deceptive business practices and online manipulation. Consumers who lack adequate understanding of their legal rights often fail to report fraud cases or seek legal remedies after experiencing losses. This condition contributes to the persistence of fraudulent practices because perpetrators recognize that many victims are unfamiliar with complaint procedures and legal protection mechanisms. Therefore, strengthening legal awareness and digital literacy is essential in reducing consumer vulnerability within online commercial environments.

From the perspective of Islamic economic principles, fraudulent activities in digital marketplaces contradict ethical values emphasizing honesty, fairness, and transparency in commercial transactions. Hafid et al. (2024) explained that the application of khiyar principles in e-commerce transactions reflects the importance of protecting consumers from deception and ensuring fairness between transaction parties. Ethical business conduct is therefore not only a legal obligation but also a moral responsibility aimed at maintaining trust and justice within economic interactions. Fraudulent practices that exploit consumer ignorance or technological limitations fundamentally violate these principles and damage the integrity of digital economic systems.

The increasing complexity of fraud in digital marketplace activities demonstrates the urgent need for stronger collaboration between government institutions, business actors, legal authorities, and communities. Wong and Tan (2021) emphasized that cross-sector collaboration is necessary to strengthen consumer protection frameworks within rapidly evolving fintech and digital commerce markets. Regulatory reinforcement through consumer protection laws and financial service regulations, including the Financial Services Authority Regulation Number 22 of 2023, plays an important role in improving legal safeguards for consumers in digital transactions (Otoritas Jasa Keuangan, 2023). However, regulatory measures alone are insufficient without active public participation and continuous legal education efforts.

Fraud in digital marketplace activities represents a serious challenge that threatens consumer rights, economic stability, and public trust within digital commerce ecosystems. Various forms of fraud, including phishing, misleading advertisements, hidden contractual terms, personal data misuse, and manipulative financial services, continue to evolve alongside technological advancement. Therefore, increasing legal awareness, strengthening digital literacy, and promoting ethical business practices are crucial strategies for minimizing fraud risks and creating safer, fairer, and more accountable digital marketplace environments for consumers.

Strategies for Strengthening Consumer Protection Through Legal Education and Digital Literacy

The rapid development of digital commerce and financial technology has created significant changes in consumer behavior and commercial interactions in modern society. E-commerce platforms, digital payment systems, online financial services, and pay later applications have become integral parts of daily economic activities. Although these technological advancements provide convenience and efficiency, they also generate various legal risks and vulnerabilities for consumers. Fraudulent transactions, misleading advertisements, hidden contractual terms, misuse of personal data, and cybercrime activities increasingly threaten consumer rights within digital marketplaces (S et al., 2025). Therefore, strengthening consumer protection through legal education and digital literacy has become an essential strategy for creating safer, fairer, and more accountable digital economic ecosystems.

Legal education plays a fundamental role in increasing public awareness regarding consumer rights and legal protections in e-commerce transactions. Many consumers still lack adequate understanding concerning their legal position in online commercial relationships, especially when dealing with digital financial services and electronic contracts. This condition often places consumers in weaker bargaining positions compared to business actors and digital platform providers. Iskandar and Putri (2024) emphasized that financial and legal literacy significantly influence consumers' ability to identify risks, understand contractual obligations, and respond appropriately to unfair business practices. Consequently, educational initiatives focusing on consumer rights, transaction security, and dispute resolution mechanisms are necessary to strengthen public legal awareness in digital marketplaces.

One important strategy for strengthening consumer protection involves increasing public understanding regarding transparent and responsible digital transactions. Consumers frequently accept online agreements without fully reading or comprehending the contractual terms provided by digital platforms. This situation creates opportunities for hidden fees, unclear obligations, and manipulative clauses that disadvantage consumers. Prasetyo and Halim (2023) argued that contractual transparency is a critical component of fair consumer protection in online financial services. Similarly, Wulandari (2024) explained that accountability and transparency in digital financial regulation are essential for strengthening consumer trust and legal certainty within digital economic systems. Through legal education programs, consumers can be encouraged to carefully examine transaction terms, understand payment obligations, and recognize unfair contractual provisions before completing digital transactions.

Digital literacy also serves as a crucial strategy for reducing the risks of fraud and cybercrime within online marketplaces. Consumers who possess adequate digital skills are generally more capable of identifying suspicious online activities, protecting personal information, and avoiding fraudulent schemes. Agusthin et al. (2024) explained that phishing crimes in digital banking systems continue to increase due to weak public understanding regarding cyber security practices and online fraud prevention. Likewise, Dluha and Ariska (2021) highlighted that internet banking consumers often become victims of cybercrime because many users fail to recognize fraudulent communication channels and fake transaction requests. Therefore, digital literacy programs should include practical guidance concerning secure password management, verification of trusted digital platforms, recognition of phishing attempts, and protection against unauthorized access to personal accounts.

Another important strategy involves strengthening consumer understanding regarding pay later systems and digital financing services. The rapid expansion of pay later features in e-commerce platforms has introduced new financial risks for consumers, particularly related to hidden interest rates, debt accumulation, and aggressive collection practices. Achmad (2023) explained that many consumers do not fully understand the legal implications and contractual consequences associated with digital financing agreements. Similar concerns were identified by Dharmadji and Sulistiyantoro (2023), who found that users of online pay later services frequently experience problems caused by unclear information and inadequate legal protection. Herlina and Yuliati (2022) further emphasized that consumers using pay later systems are vulnerable to pressure from business actors due to limited bargaining power and weak financial literacy. In addition, Nurmalasari et al. (2023) noted that the legal implementation of e-commerce pay later systems still presents various challenges related to consumer rights and contractual fairness. Oktaviani et al. (2024) also highlighted the importance of stronger legal supervision and consumer awareness within pay later services to minimize financial exploitation and consumer losses. Furthermore, Wardah et al. (2025) explained that although pay later systems offer convenience, they simultaneously expose consumers to legal and financial risks that require greater public understanding and regulatory oversight. These findings indicate that legal education regarding responsible digital financing practices is highly necessary to prevent excessive consumer vulnerability.

Strengthening consumer protection also requires increasing public awareness regarding personal data protection and privacy rights within e-commerce activities. Digital transactions routinely involve the collection and processing of sensitive consumer information, including addresses, identification numbers, banking data, and contact details. Weak protection of personal information creates opportunities for identity theft, unauthorized transactions, and cyber exploitation. Pratiwi et al. (2024) explained that personal data protection has become one of the most important legal issues within e-commerce transactions due to the growing complexity of digital crime. Legal education programs should therefore encourage consumers to understand the importance of protecting personal information, avoiding suspicious links, limiting unnecessary data sharing, and utilizing secure digital platforms during online transactions.

In addition to consumer awareness, business actors and digital platform providers also play significant roles in strengthening consumer protection systems. Gayo et al. (2024) emphasized that digital service providers possess legal obligations to ensure consumer security, transparency, and accountability within online business activities. Companies operating digital marketplaces must provide accurate information, transparent contractual systems, responsive complaint mechanisms, and adequate protection of consumer data. Similarly, Ariyanto et al. (2021) explained that sellers have legal responsibility for hidden defective products and misleading commercial practices within online transactions. These responsibilities indicate that consumer protection cannot rely solely on individual consumer awareness but must also involve ethical and accountable business conduct from digital service providers.

From a broader institutional perspective, strengthening consumer protection requires effective legal frameworks and responsive dispute resolution mechanisms. The issuance of Financial Services Authority Regulation Number 22 of 2023 demonstrates the government's commitment to improving consumer protection standards within the financial services sector (Otoritas Jasa Keuangan, 2023). This regulation emphasizes transparency, fairness, accountability, and consumer rights in digital financial activities. Furthermore, Yuwono and Santiago (2024) highlighted the importance of reevaluating the role of Indonesia's Consumer Dispute Settlement Agency (BPSK) to ensure more effective handling of contemporary digital transaction disputes. Accessible complaint mechanisms and efficient legal institutions are essential for encouraging consumers to seek legal remedies when they experience losses in online transactions.

Cross-sector collaboration also represents an important strategy for strengthening digital consumer protection frameworks. Wong and Tan (2021) explained that cooperation among governments, financial institutions, digital platforms, legal authorities, and educational institutions is necessary to address the complex challenges emerging within fintech and e-commerce markets. Consumer protection in digital environments requires integrated approaches combining regulatory enforcement, technological innovation, public education, and institutional cooperation. Through collaborative efforts, stakeholders can develop more effective educational campaigns, stronger cyber security systems, and better legal protections for consumers within rapidly evolving digital economies.

From the perspective of Islamic economic principles, consumer protection strategies should also emphasize ethical values such as fairness, honesty, transparency, and mutual consent in commercial transactions. Hafid et al. (2024) explained that the application of khiyar principles within e-commerce transactions provides consumers with opportunities to reconsider agreements and avoid deceptive practices. These principles reflect the importance of balancing technological advancement with moral responsibility and justice in economic interactions. Similarly, Azzahra (2023) highlighted that legal protection for buyers in contractual agreements must prioritize fairness and legal certainty to prevent exploitation and imbalance between transaction parties. Therefore, legal education should not only focus on technical legal aspects but also promote ethical awareness and responsible commercial behavior in digital marketplaces.

Kornelis (2022) further explained that the rapid growth of digital banking systems presents both opportunities and challenges for consumer protection in modern financial environments. As digital financial services continue to expand, consumers increasingly require adaptive legal literacy capable of responding to evolving technological risks. This condition demonstrates that consumer protection strategies must continuously adapt to technological developments and emerging forms of digital fraud. Continuous educational programs, public campaigns, and community-based legal literacy initiatives are therefore necessary to ensure that consumers remain informed and protected within digital commerce ecosystems.

Strengthening consumer protection through legal education and digital literacy is essential for creating sustainable and trustworthy digital economic systems. Consumers who possess adequate legal awareness and digital competencies are more capable of protecting themselves from fraud, understanding contractual obligations, safeguarding personal information, and utilizing legal remedies effectively. At the same time, stronger institutional frameworks, ethical business conduct, and collaborative regulatory efforts are necessary to support fair and transparent digital marketplaces. Through integrated legal education and digital literacy strategies, society can develop greater resilience against the growing risks of fraud and exploitation within modern e-commerce activities.

CONCLUSION

The rapid expansion of e-commerce and digital financial services has created greater opportunities for consumers while simultaneously increasing their exposure to digital fraud, personal data misuse, deceptive commercial practices, and other forms of cyber-enabled consumer exploitation. This community service program demonstrates that community-based legal education combined with digital literacy initiatives can effectively enhance participants' understanding of consumer rights, transaction security, fraud prevention, and available legal remedies in electronic commerce. Strengthening legal awareness through participatory educational activities is therefore an important strategy for fostering safer, more responsible, and legally informed consumer behavior within the digital economy.

The findings also provide important practical implications. For policymakers, the program highlights the need to integrate consumer protection education into broader national and regional digital literacy policies while strengthening collaboration among government agencies, consumer protection institutions, and financial service regulators. For educational institutions, the results emphasize the importance of incorporating consumer protection law, digital ethics, and cyber fraud awareness into formal and non-formal educational programs to cultivate responsible digital citizenship from an early stage.

Nevertheless, this program has several limitations. It was implemented within a limited community setting, involved a relatively small number of participants, and evaluated only short-term improvements in participants' legal awareness without measuring long-term behavioral changes or the sustainability of learning outcomes. Future initiatives should expand the program to more diverse communities and educational settings, involve multi-stakeholder partnerships with government agencies, universities, consumer organizations, and digital platform providers, and utilize hybrid and technology-based learning models to increase accessibility, scalability, and long-term impact. Such collaborative efforts are expected to strengthen consumer resilience and promote sustainable consumer protection within the evolving digital marketplace.

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