

Consumer Protection in the Distribution of Natural Medicines Containing Chemical Substances in E-Commerce: An Analysis Based on Law Number 8 of 1999 in Relation to Zudaifu Ointment

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Abstract

Advances in digital technology and the growth of e-commerce have broadened public access to various health products, including natural medicines. However, this development has also given rise to the distribution of products that do not meet established safety standards. This issue is evidenced by the circulation of natural medicines such as Zudaifu ointment, which is distributed without marketing authorization and contains pharmaceutical chemical substances. This discrepancy between product claims and actual composition poses health risks and indicates non-compliance with consumer protection regulations. This study aims to analyze the forms of legal protection for consumers and the liability of business actors in the circulation of such products through e-commerce, based on Law Number 8 of 1999 on Consumer Protection. This research



employs a normative juridical method using statutory and conceptual approaches, with qualitative analysis through legal interpretation. The findings demonstrate that such distribution constitutes a violation of consumer protection laws, particularly concerning the statutory obligation of business actors to ensure product quality and the accuracy of product information. Sellers, as business actors, bear primary liability and are required to provide compensation for consumer losses if proven at fault. In addition, e-commerce platforms, as electronic system providers, bear indirect responsibility for supervising products within their systems. Accordingly, despite the existing regulatory framework, consumer protection in e-commerce remains constrained by gaps between statutory provisions and their enforcement. Therefore, strengthening supervisory mechanisms, ensuring compliance by business actors, and enhancing the role of digital platforms are necessary to safeguard consumer rights in the digital era.

KEYWORDS

Consumer Protection; E-Commerce; Pharmaceutical Chemical Substances; Legal Liability; Natural Medicines

Introduction

Advancements in information and communication technology have reshaped the mechanisms of marketing, distribution, and sale of pharmaceutical products. Direct interaction between consumers and sellers is no longer required, as transactions are increasingly conducted through e-commerce platforms that utilize electronic systems as intermediaries. This technology-driven trading model has shifted conventional face-to-face transactions into indirect interactions, offering efficiency, accessibility, and flexibility beyond spatial and temporal limitations.¹ Alongside this

¹ Anisa Utami and Herwastoeti, "Perlindungan Hukum Terhadap Konsumen Atas Penjualan Obat-Obatan Ilegal Secara Online" 1, no. 2 (2022): 93–116, <https://doi.org/https://doi.org/10.32503/klausula.v1i2.2727>.

transformation, the global “back to nature” trend has contributed to the increasing public interest in natural-based products.²

In the healthcare sector, this phenomenon is reflected in the growing consumption of natural medicines, which are often perceived as safer, more practical, and easier to obtain.³ Additionally, their long-standing traditional use has strengthened public trust, particularly among individuals who are skeptical of synthetic pharmaceutical products.⁴ However, amid the high level of public trust, the expansion of online distribution has not been adequately supported by effective supervisory mechanisms. Although relevant legal frameworks exist, their implementation continues to face practical challenges.⁵ This issue is further exacerbated by the relatively low level of digital literacy among consumers. Empirical evidence from the Indonesian Food and Drug Authority (BPOM) indicates that, as of the third quarter of 2024, approximately 245,805 links containing illegal products have been identified and recommended for takedown.⁶

From a normative perspective, the Indonesian government has established strict regulatory standards through Law Number 17 of 2023 on Health. Article 1 point 17 provides that “natural medicine is any material, mixture of materials, or product derived from natural resources in the form of plants, animals, microorganisms, minerals, or other materials originating from natural resources, or a combination of such materials, which has been

² Amy Shientiarizki et al., “Perlindungan Hukum Bagi Konsumen Terhadap Peredaran Obat Tradisional Tanpa Izin Edar Badan Pengawas Obat Dan Makanan,” 2026, 6008–23, <https://doi.org/https://doi.org/10.61104/alz.v4i1.4337>.

³ Devia Oktaviandra, Yeti Sumiyati, and Agus Hadian Rahim, “Perlindungan Hukum Konsumen Pengguna Obat Tradisional Tanpa Izin Badan Pengawas Obat Dan Makanan (Bpom) Yang Diedarkan Secara Daring Pasca Pandemi Covid-19” 6, no. 4 (2025): 1–15, <https://jhlgl.rewangrencang.com/>.

⁴ Komang Vina Listiani and I Wayan Gde Wiryawan, “Peran Balai Besar Pengawas Obat Dan Makanan (Bbpom) Di Denpasar Terhadap Peredaran Obat Bahan Alam Yang Mengandung Bahan Kimia Obat Di Kota Denpasar” 05, no. 02 (2025): 326–35, <https://doi.org/https://doi.org/10.36733/jhm.v5i2>.

⁵ Nur Abdul het al., “Peredaran Obat Secara Daring Di Indonesia , Kemajuan Atau Ancaman,” no. 4 (2026): 1–12, <https://doi.org/https://doi.org/10.47134/scpr.v2i4.5115>.

⁶ BPOM, “Kepala BPOM Dorong Masyarakat Melek Literasi Digital Untuk Wujudkan Generasi Indonesia Emas 2045,” Badan POM, 2024, <https://www.pom.go.id/berita/kepala-bpom-dorong-masyarakat-melek-literasi-digital-untuk-wujudkan-generasi-indonesia-emas-2045>.

used traditionally, or has been proven to be efficacious, safe, and of good quality, and is used for health maintenance, health improvement, disease prevention, treatment, and/or health recovery based on empirical and/or scientific evidence.” Furthermore, Minister of Health Regulation Number 007 of 2012 concerning the Registration of Traditional Medicines and BPOM Regulation Number 25 of 2023 concerning the Criteria and Procedures for the Registration of Natural Medicines require that all natural medicines distributed within the territory of Indonesia obtain marketing authorization. This requirement also applies to imported products classified as natural medicines. In addition to these administrative requirements, the regulatory framework also establishes prohibitions. Article 7 of Minister of Health Regulation Number 007 of 2012 and Article 94 paragraph (1) letter (b) of BPOM Regulation Number 25 of 2023 explicitly prohibit natural medicines from containing pharmaceutical chemical substances derived from isolation or synthetic processes that possess medicinal properties.

The circulation of natural medicines containing pharmaceutical chemical substances indicates a discrepancy between marketing claims and the actual composition of products. This practice is evident in the widespread distribution of Zudaifu ointment through e-commerce platforms, which is marketed as a natural medicine effective for treating various skin conditions. Based on BPOM supervision results, as stated in Appendix 1 of Press Release Number HM.01.1.2.02.25.80 dated February 27, 2025, Zudaifu ointment does not have marketing authorization and has been found to contain miconazole nitrate.⁷ Scientifically, miconazole nitrate is identified as a synthetic imidazole derivative classified as a pharmaceutical chemical substance due to its broad-spectrum

⁷ BPOM, “BPOM Cegah Peredaran 61 Jenis Obat Bahan Alam Mengandung Bahan Kimia Obat Sebagai Upaya Perlindungan Terhadap Kesehatan Masyarakat,” pom.go.id, 2025, <https://www.pom.go.id/siaran-pers/bpom-cegah-peredaran-61-jenis-obat-bahan-alam-mengandung-bahan-kimia-obat-sebagai-upaya-perlindungan-terhadap-kesehatan-masyarakat>.

pharmacological efficacy in controlling fungal infections.⁸ The presence of such synthetic compounds in Zudaifu ointment indicates a violation of Minister of Health Regulation Number 007 of 2012 and BPOM Regulation Number 25 of 2023, which explicitly prohibit the inclusion of pharmaceutical chemical substances in natural medicines.

The distribution of such products raises concerns from the perspective of health law and may potentially violate consumer protection provisions under Law Number 8 of 1999 on Consumer Protection. This discrepancy shows that the information provided regarding the traded products does not fully reflect their actual condition. Consumers are entitled to comfort, safety, and security when consuming goods and/or services, and to receive accurate, clear, and honest information regarding product conditions and guarantees.⁹ This imbalance in bargaining power between business actors and consumers leaves consumers vulnerable position.¹⁰

The discrepancy between legal provisions and actual practices further highlights the limitations in the implementation of Law Number 8 of 1999 on Consumer Protection in accommodating the characteristics of electronic transactions. Although the law regulates the responsibilities of business actors and the rights of consumers, its application in e-commerce transactions continues to face significant challenges.¹¹

Previous studies have analyzed consumer protection in relation to the circulation of traditional medicines containing pharmaceutical chemical substances from various normative perspectives. Amy Shientiarizki, Ahmad Fadhli Busthomi, Maya Pramudita, and Rahayu Sri Utami (2026),

⁸ Mudassar Shahid et al., "Antifungal Cationic Nanoemulsion Ferrying Miconazole Nitrate with Synergism to Control Fungal Infections : In Vitro , Ex Vivo , and In Vivo Evaluations," 2022, <https://doi.org/10.1021/acsomega.2c01075>.

⁹ Yanci Libria Fista and Aris Machmud, "Perlindungan Hukum Konsumen Dalam Transaksi E-Commerce Ditinjau Dari Perspektif Undang- Undang Perlindungan Konsumen" 12 (2023): 177–89, <https://doi.org/https://doi.org/10.37893/jbh.v12i1.599>.

¹⁰ Shientiarizki et al., "Perlindungan Hukum Bagi Konsumen Terhadap Peredaran Obat Tradisional Tanpa Izin Edar Badan Pengawas Obat Dan Makanan."

¹¹ Eys Putri Pembayun and Arifin Faqih Gunawan, "Perlindungan Hukum Terhadap Konsumen Dalam Transaksi Digital: Tinjauan Terhadap Implementasi UU Perlindungan Konsumen Di Marketplance" 3 (2025): 84–94, <https://doi.org/https://doi.org/10.58819/jfh.v3i2.156>.

in their article *“Perlindungan Hukum Bagi Konsumen Terhadap Peredaran Obat Tradisional Tanpa Izin Edar Badan Pengawas Obat dan Makanan,”* analyze the legal implications of distributing traditional medicines without BPOM marketing authorization for consumer protection. Their findings indicate that the consumer protection framework is systematically regulated through Law Number 17 of 2023 on Health and Law Number 8 of 1999 on Consumer Protection, with BPOM playing a significant role in supervision and law enforcement. The study also highlights the integration of civil and criminal mechanisms as instruments for consumer rights recovery and legal enforcement.¹²

Zouvry Imam Tharsyah, Budiono, Sri Dwiyaniti, and Imas Rosidawati Wiradarja (2026), in their study *“Perlindungan Hukum terhadap Konsumen atas Peredaran Obat Tradisional yang Mengandung Bahan Kimia Obat (BKO): Analisis Tanggung Jawab Produsen dan Peran Pengawasan BPOM Ditinjau dari Undang-Undang Nomor 8 Tahun 1999 tentang Perlindungan Konsumen,”* examine the effectiveness of consumer protection with the application of strict liability principles and criminal sanctions. Their research identifies challenges, including the limited deterrent effect of sanctions and difficulties in proving consumer losses. Furthermore, the study reveals that BPOM supervision has not yet operated optimally due to the increasing distribution of illegal products through digital platforms and limited inter-agency coordination.¹³

Another study conducted by Safwatul Khaira, Teuku Yudi Afrizal, and Ramziati (2025), entitled *“Perlindungan Hukum Bagi Konsumen Terhadap Peredaran Obat Tradisional yang Mengandung Bahan Berbahaya (Studi Penelitian di Kabupaten Aceh Utara),”* using an

¹² Shientiarizki et al., “Perlindungan Hukum Bagi Konsumen Terhadap Peredaran Obat Tradisional Tanpa Izin Edar Badan Pengawas Obat Dan Makanan.”

¹³ Zouvry Imam Tharsyah et al., “Perlindungan Hukum Terhadap Konsumen Atas Peredaran Obat Tradisional Yang Mengandung Bahan Kimia Obat (BKO): Analisis Tanggung Jawab Produsen Dan Peran Pengawasan Bpom Ditinjau Dari Undang-Undang Nomor 8 Tahun 1999 Tentang Perlindungan Konsumen” 7, no. 1 (2026): 65–73, <https://ejournals.com/ojs/index.php/jihk/article/view/4645>.

empirical juridical approach, finds that consumer protection is implemented through legal sanctions and business actor liability in the form of compensation for affected consumers.¹⁴

Meanwhile, Ratih Brity Rosa and Endang Prasetyawati (2024), in their study *“Tanggung Jawab Hukum Konsumen atas Kerugian Mengonsumsi Jamu yang Mengandung Bahan Kimia,”* highlight the increasing consumption of traditional herbal medicines accompanied by the addition of harmful pharmaceutical chemical substances. Their findings indicate that such practices may give rise to administrative, civil, and criminal liability under consumer protection and health laws.¹⁵

Similarly, Frida Julianti and Asep Hakim Zakiran (2025), in their research *“Pertanggungjawaban terhadap Obat Tradisional Tanpa Izin Edar yang Dijual Secara Online Melalui E-Commerce Berdasarkan Undang-Undang Perlindungan Konsumen No. 8 Tahun 1999,”* analyze legal liability in the online sale of traditional medicines without marketing authorization. Their study indicates that such practices violate consumer rights and highlights the role of marketplace providers in dispute resolution mechanisms.¹⁶

Based on the foregoing discussion, it can be observed that, although prior studies have addressed consumer protection in relation to the circulation of natural medicines containing pharmaceutical chemical substances from various perspectives, including marketing authorization, product composition, business actor liability, and the supervisory role of the Indonesian Food and Drug Authority (BPOM). However, these studies

¹⁴ Safwatul Khaira, Teuku Yudi Afrizal, and Ramziati, “Perlindungan Hukum Bagi Konsumen Terhadap Peredaran Obat Tradisional Yang Mengandung Bahan Berbahaya (Studi Penelitian Di Kabupaten Aceh Utara)” VIII (2025), <https://ojs.unimal.ac.id/jimfh/%0A>.

¹⁵ Ratih Brity Rosa and Endang Prasetyawati, “Tanggung Jawab Hukum Konsumen Atas Kerugian Mengonsumsi Jamu Yang Mengandung Bahan Kimia,” 2024, <https://doi.org/https://doi.org/10.52249/ilr.v4i1.244>.

¹⁶ Frida Julianti and Asep Hakim Zakiran, “Pertanggungjawaban Terhadap Obat Tradisional Tanpa Izin Edar Yang Dijual Secara Online Melalui E-Commerce Berdasarkan Undang-Undang Perlindungan Konsumen No. 8 Tahun 1999,” no. 8 (2025), <https://doi.org/https://doi.org/10.29313/bcsis.v5i1.16036>.

remain largely fragmented and have not comprehensively integrated the interrelation between product composition, distribution through e-commerce, and the construction of legal liability within a unified analytical framework. In addition, prior research tends to position business actors as the primary subject, while the role of e-commerce platforms as electronic system providers in facilitating the circulation of products within digital spaces has not been thoroughly examined. The phenomenon of the circulation of natural medicines containing pharmaceutical chemical substances through e-commerce indicates that the issues involved extend beyond compliance with health regulations, encompassing also the protection of consumer rights to obtain safe products and accurate, clear, and honest information. This complexity is further heightened by the involvement of e-commerce platforms as intermediaries in digital transactions, which raises uncertainties regarding the boundaries of legal liability among the parties involved. Therefore, this study is relevant to be conducted to analyze the forms of legal protection for consumers based on Law Number 8 of 1999 on Consumer Protection, as well as to examine the liability of business actors in the circulation of natural medicines containing pharmaceutical chemical substances through e-commerce, using the case of Zudaifu ointment. The findings are expected to serve as a basis for formulating more comprehensive legal solutions to optimize consumer protection in the digital era.

Methods

This study employs a normative juridical research method, focusing on the analysis of positive legal norms governing consumer protection and the liability of business actors in the circulation of natural medicines through e-commerce platforms. The study is directed at assessing the conformity between applicable legal provisions and the practice of distributing products containing pharmaceutical chemical substances

through digital platforms. The approaches used in this research include the statutory approach and the conceptual approach.¹⁷ The statutory approach is carried out by examining relevant legal provisions, including Law Number 8 of 1999 on Consumer Protection, Law Number 17 of 2023 on Health, Government Regulation Number 80 of 2019 on Electronic Commerce, Minister of Health Regulation Number 007 of 2012, and BPOM Regulation Number 25 of 2023. Meanwhile, the conceptual approach is used to analyze legal concepts concerning business actors, consumer protection, and civil liability in electronic transactions, particularly in assessing the conformity between legal norms and the practice of product circulation through e-commerce.

The legal materials consist of primary legal materials in the form of statutory regulations, secondary legal materials including books, scholarly journals, BPOM press releases, and previous research findings, as well as tertiary legal materials serving as supporting references. This study collects legal materials through library research by examining sources relevant to the research problem. The analysis is carried out qualitatively through methods of legal interpretation.¹⁸ The methods of interpretation applied in this study include systematic interpretation, by relating relevant statutory provisions, and teleological interpretation, to understand the objectives of consumer protection in electronic transactions. These methods are used to identify violations of consumer protection provisions and to assess the liability of business actors in the circulation of natural medicines containing pharmaceutical chemical substances through e-commerce platforms.

Result and Discussion

¹⁷ Peter Mahmud Marzuki, *Penelitian Hukum* (Jakarta: Kencana Prenada Media Group, 2021).

¹⁸ H. A. Lawali Hasibuan, "Metode Penafsiran Hukum Sebagai Alat Mencari Keadilan Hakiki" 15 (2023), <https://doi.org/https://doi.org/10.58350/leg.v15i2.351>.

1. Forms of Legal Protection for Consumers under Law Number 8 of 1999 on Consumer Protection in Relation to Natural Medicines Containing Pharmaceutical Chemical Substances

Consumer protection constitutes a legal concept aimed at safeguarding consumers' rights and ensuring fair and honest trade practices within society.¹⁹ In electronic commerce, this protection requires particular attention due to the increasing complexity of digital transactions. In this regard, the legal framework provides a basis for consumer protection in the event of losses by regulating the liability of business actors and imposing sanctions for violations.²⁰

This issue becomes more complex when associated with the circulation of natural medicines containing pharmaceutical chemical substances through e-commerce platforms. Products that do not meet safety standards or lack marketing authorization may pose risks to consumer safety. In Indonesia, legal protection for consumers is regulated under Law Number 8 of 1999 on Consumer Protection. Within this law, the principles of consumer protection serve as the normative foundation underlying the regulation of the rights and obligations of parties in commercial activities.²¹ These principles encompass consumer safety and security, as well as legal certainty. The principle of safety and security is intended to ensure that consumers obtain protection in relation to safety and security in the use and consumption of goods and/or services. Meanwhile, the principle of legal certainty is intended to ensure that both consumers and business actors

¹⁹ Yuyut Prayuti, *Perlindungan Konsumen Di Era Digital: Teori Dan Realita - Seruan Refleksi Dan Harapan Untuk Masa Depan Perlindungan Konsumen*, ed. Erna Listiawati (Kota Malang: PT. Literasi Nusantara Abadi Grup, 2024).

²⁰ Kusumadewi Yessy and dan Grace Sharon, *Hukum Perlindungan Konsumen*, Jakarta, 2022.

²¹ Frida Nurrahma Masturi et al., "Tantangan Dan Peran Hukum Perlindungan Konsumen Pada Era Ekonomi Digital" 7, no. 1 (2025): 1–21, <https://doi.org/10.20884/1.slr.2025.7.1.16095>.

comply with applicable legal provisions and obtain justice in the implementation of consumer protection, supported by legal certainty guaranteed by the state.²²

The implementation of these principles is reflected in the regulation of consumer rights under Article 4 of Law Number 8 of 1999 on Consumer Protection. Consumers are entitled to the following rights:

- a. “the right to comfort, security, and safety in consuming goods and/or services” (letter a).

This provision stipulates that every product offered to consumers must ensure security and safety in its use. This aspect constitutes a fundamental element of consumer protection, as products that pose risks or endanger consumers are not suitable for circulation. Therefore, goods or services that fail to provide a sense of security or possess the potential to threaten consumer safety are fundamentally unfit for public circulation.²³

- b. “the right to accurate, clear, and honest information regarding the condition and guarantee of goods and/or services” (letter c).

This provision affirms that consumers have the right to receive accurate, clear, and honest information prior to conducting transactions. In e-commerce transactions, business actors are obligated to provide comprehensive explanations regarding the condition, specifications, and other relevant information related to the products offered. The provision of such information is essential to ensure that consumers fully understand the characteristics of the goods, thereby enabling them to make informed decisions based on the available information.²⁴

²² Fista and Machmud, “Perlindungan Hukum Konsumen Dalam Transaksi E-Commerce Ditinjau Dari Perspektif Undang- Undang Perlindungan Konsumen.”

²³ Abdul Halim Barkatullah, *Hak-Hak Konsumen* (Bandung: Nusamedia, 2017).

²⁴ Lisda Apriliani Sobirin and Putri Utami Choeriyah, “PERLINDUNGAN HUKUM TERHADAP KONSUMEN DALAM TRANSAKSI E-COMMERCE DITINJAU DARI UNDANG-UNDANG

These rights are closely correlated with the obligations of business actors under Article 7 of Law Number 8 of 1999 on Consumer Protection. These obligations include:

- a. “to act in good faith in conducting its business activities” (letter a).

Business actors shall act in good faith in their business. This obligation is reflected, *inter alia*, in the provision of honest and transparent information regarding the products being traded. The principle of good faith constitutes a fundamental legal standard that requires business actors to refrain from engaging in practices that may mislead or cause harm to consumers.

- b. “to provide accurate, clear, and honest information regarding the condition and guarantee of goods and/or services, as well as instructions for use, repair, and maintenance” (letter b).

This provision stipulates that business actors are obliged to provide comprehensive, accurate, and transparent information regarding the characteristics, specifications, and condition of the goods and/or services being traded. The provision of such information is essential to ensure that consumers are able to fully understand the nature and characteristics of the products offered, thereby preventing potential losses arising from misinformation, incomplete information, or misleading representations.²⁵

PERLINDUNGAN KONSUMEN” 7, no. 1 (2024): 284–89,
<https://doi.org/https://doi.org/10.56301/csj.v7i1.1457>.

²⁵ Fevrie Rizqie Saefudin Junior and Liya Sukma Muliya, “Perlindungan Hukum Terhadap Konsumen Terkait Informasi Yang Tidak Sesuai Ditinjau Dari Undang-Undang Nomor 8 Tahun 1999 Tentang Perlindungan Konsumen,” 2023,
<https://doi.org/https://doi.org/10.29313/bcsls.v3i1.4950>.

- c. “to guarantee the quality of goods and/or services produced and/or traded in accordance with the applicable standards of quality for goods and/or services” (letter d).

This provision requires business actors to guarantee that goods and/or services produced and/or traded meet the applicable standards of quality. In electronic commerce, this obligation further requires business actors to ensure that the products marketed are consistent with the specifications presented to consumers and comply with the relevant standards of quality and safety.²⁶

In addition to regulating consumer rights and the obligations of business actors, Law Number 8 of 1999 on Consumer Protection establishes various prohibitions for business actors as stipulated in Article 8. This provision requires that goods and/or services traded must comply with predetermined specifications and must not mislead consumers. The implementation of this provision requires a firm commitment from business actors to ensure that the products they offer meet the applicable criteria in terms of quality, safety, and truthful labeling. Compliance with these requirements is essential, as any violation may result in legal consequences in accordance with applicable laws and regulations.²⁷ Specifically, Article 8 paragraph (1) stipulates that business actors are prohibited from:

- a. “does not comply with the required standards and the provisions of applicable laws and regulations” (letter a).

²⁶ Sobirin and Choeriyah, “PERLINDUNGAN HUKUM TERHADAP KONSUMEN DALAM TRANSAKSI E-COMMERCE DITINJAU DARI UNDANG-UNDANG PERLINDUNGAN KONSUMEN.”

²⁷ Firyaal Shabrina Izazi et al., “Perlindungan Hukum Terhadap Konsumen Dalam Transaksi E-Commerce Melalui Undang-Undang Nomor 8 Tahun 1999 Tentang Perlindungan Konsumen Dan Peraturan Pemerintah (Pp) Nomor 80 Tahun 2019” 1, no. 2 (2024): 8–14.

This provision provides that business actors are not permitted to produce or distribute goods and/or services that fail to meet applicable standards and regulatory requirements.²⁸

- b. “does not conform to the conditions, guarantees, privileges, or efficacy as stated in the label or etiquette of the goods and/or services” (letter d).

This provision emphasizes that every claim made by business actors, whether in labels or product descriptions, must accurately reflect the actual condition and characteristics of the product so as to prevent misunderstandings or misleading consumers.

- c. “does not conform to the quality, grade, composition, method of processing, style, model, or intended use as stated in the label or description of the goods and/or services” (letter e).

This provision affirms that information regarding the composition and quality of products must correspond to their actual condition, thereby enabling consumers to obtain an accurate understanding of the product before deciding to use it.

- d. “does not conform to the promises as stated in the label, description, advertisement, or sales promotion of the goods and/or services” (letter f).

This provision prohibits business actors from trading goods and/or services that do not correspond to the promises stated in labeling, descriptions, advertisements, or promotional activities. This provision serves as a legal basis for protecting consumers from misleading trade practices. Therefore, business actors are

²⁸ Rosa and Prasetyawati, “Tanggung Jawab Hukum Konsumen Atas Kerugian Mengkonsumsi Jamu Yang Mengandung Bahan Kimia.”

required to ensure that the goods and/or services they offer are fully consistent with the claims conveyed to consumers.²⁹

Violations of the provisions stipulated in Article 8 that result in losses for consumers give rise to a legal obligation for business actors to provide remedies. Such liability is manifested through the provision of compensation as a consequence of the failure to fulfill obligations in the conduct of business activities. The regulation concerning the liability of business actors to provide compensation is governed by Article 19 of Law Number 8 of 1999 on Consumer Protection. This provision affirms that business actors are responsible for losses suffered by consumers arising from the use of goods and/or services that are produced or traded.³⁰ It indicates that business actors are not only obliged to ensure the safety and quality of products prior to their distribution but are also required to bear responsibility when the use of such products results in harm to consumers. Pursuant to Article 19 paragraph (2), “compensation as referred to in paragraph (1) may take the form of a refund, replacement of goods and/or services of similar type or equivalent value, or health care and/or the provision of compensation in accordance with applicable laws and regulations.” This provision demonstrates that the liability of business actors is not limited to product replacement but may also extend to broader forms of recovery for losses suffered by consumers. However, business actors may be exempted from the obligation to provide compensation if they are able to prove that consumer losses are not attributable to their fault.³¹

²⁹ Ahmad Haris and Levina Yustitiningtyas, “Perlindungan Hukum Konsumen Terhadap Transaksi E- Commerce Pada Penjualan Barang Palsu” 3, no. 2 (2024): 67–87, <https://doi.org/https://doi.org/10.30651/aca.v3i2.22317>.

³⁰ Tharsyah et al., “Perlindungan Hukum Terhadap Konsumen Atas Peredaran Obat Tradisional Yang Mengandung Bahan Kimia Obat (BKO): Analisis Tanggung Jawab Produsen Dan Peran Pengawasan Bpom Ditinjau Dari Undang-Undang Nomor 8 Tahun 1999 Tentang Perlindungan Konsumen.”

³¹ Jeane Neltje Saly et al., “Analisis Yuridis Tanggung Jawab Ganti Kerugian Oleh Pelaku Usaha Atas Tindakan Wanprestasi Sebagai Upaya Perlindungan Konsumen” 2, no. 2 (2023): 962–69, <https://doi.org/https://doi.org/10.57235/qistina.v2i2.842>.

2. The Liability of Business Actors in the Distribution of Zudaifu Ointment through E-Commerce

The online circulation of medicinal products gives rise to potential risks to public health, particularly in relation to the use of medicines without medical supervision. These risks are further exacerbated by the presence of business actors who conduct their activities without obtaining the required official authorization as stipulated in applicable regulations. Amid increasingly competitive business competition, various strategies are employed by business actors to attract consumer interest, including leveraging the characteristics of electronic transactions that do not involve direct interaction between sellers and buyers. Such conditions may give rise to vulnerabilities and various issues for consumers.³² This phenomenon is reflected in the circulation of Zudaifu ointment. This product is marketed through e-commerce platforms with claims as a natural medicine intended to treat various skin conditions. In the product descriptions displayed on sales pages, Zudaifu ointment is claimed to alleviate symptoms such as itching and eczema.³³ These claims may shape consumer perceptions that the product constitutes a relatively safe natural medicine due to its purported herbal composition.

In relation to its distribution, the analysis of Zudaifu ointment must be based on the administrative and substantive standards established by the Indonesian Food and Drug Authority (BPOM). From an administrative perspective, Zudaifu ointment is categorized as an illegal product as it lacks the requisite marketing authorization from

³² Kadek Dwi Giovanni and Anak Agung Sri Indrawati, "Perlindungan Hukum Bagi Konsumen Terhadap Peredaran Obat Online Yang Tidak Sesuai Dengan Komposisi Obat Asli" 10, no. 5 (2022): 1037–45, <https://doi.org/https://doi.org/10.24843/KS.2022.v10.i05.p05>.

³³ Halodoc, "Efek Samping Salep Zudaifu: Awas Risiko Ini," [halodoc.com](https://www.halodoc.com/artikel/efek-samping-salep-zudaifu-awas-risiko-ini?srsId=AfmBOor86BV-VFuOWQKyw8XXd5gSjaXC-avEC_kThwyEiB0P92wGeX-8), 2026, https://www.halodoc.com/artikel/efek-samping-salep-zudaifu-awas-risiko-ini?srsId=AfmBOor86BV-VFuOWQKyw8XXd5gSjaXC-avEC_kThwyEiB0P92wGeX-8.

BPOM.³⁴ Marketing authorization constitutes a mandatory legal requirement for all natural medicines, including imported products, to be distributed within the territory of Indonesia, as stipulated under Minister of Health Regulation Number 007 of 2012 and BPOM Regulation Number 25 of 2023. The absence of such authorization signifies that the product has failed to satisfy the essential criteria of safety, efficacy, and quality as required under applicable regulations. From a substantive perspective, Zudaifu ointment presents regulatory non-compliance, as BPOM supervision identified that the product contains pharmaceutical chemical substances (BKO), specifically miconazole nitrate, as set out in Appendix 1 of Press Release No. HM.01.1.2.02.25.80 dated 27 February 2025.³⁵ Miconazole nitrate is a synthetic imidazole compound classified as a pharmaceutical chemical substance due to its broad-spectrum pharmacological efficacy in treating fungal infections.³⁶ The prohibition of pharmaceutical chemical substances in natural medicines is explicitly regulated under Article 7 of Minister of Health Regulation Number 007 of 2012 and Article 94 paragraph (1) letter b of BPOM Regulation Number 25 of 2023. Accordingly, the circulation of Zudaifu ointment not only constitutes non-compliance with health regulations but also contravenes fundamental principles of consumer protection, as it reflects a material discrepancy between marketing claims and the actual composition of the product.

The presence of pharmaceutical chemical substances such as miconazole nitrate in products marketed as natural medicines may pose health risks to the public. Consumers who are hesitant to use chemical-based medicines tend to prefer natural products, as these are perceived

³⁴ BPOM, "BPOM Cegah Peredaran 61 Jenis Obat Bahan Alam Mengandung Bahan Kimia Obat Sebagai Upaya Perlindungan Terhadap Kesehatan Masyarakat."

³⁵ BPOM.

³⁶ Shahid et al., "Antifungal Cationic Nanoemulsion Ferrying Miconazole Nitrate with Synergism to Control Fungal Infections : In Vitro , Ex Vivo , and In Vivo Evaluations."

to involve lower risks.³⁷ However, the use of pharmaceutical chemical substances without medical supervision may result in adverse health effects, considering that dosage and potential side effects cannot always be adequately controlled. This indicates that the information provided regarding the distributed product does not accurately reflect its actual characteristics, thereby potentially leading to the non-fulfillment of consumer rights.³⁸

Based on these facts, the circulation of Zudaifu ointment marketed as a natural medicine while containing pharmaceutical chemical substances demonstrates a discrepancy between product claims and its actual composition. This situation is closely related to consumer protection provisions, which prohibit business actors from trading goods that fail to meet required standards or are inconsistent with the information provided to consumers. Such prohibitions are specifically regulated under Article 8 of Law Number 8 of 1999 on Consumer Protection. The violation that occurs cannot merely be understood as non-compliance by business actors with statutory provisions, but also reflects weaknesses in the supervision system governing product circulation on digital platforms. The ease of access and the extensive distribution reach facilitated by e-commerce enable products that do not meet required standards to continue circulating within society. This indicates that the issue does not solely lie in the conduct of business actors, but is also related to deficiencies in control mechanisms within the electronic commerce system.

Based on the foregoing analysis, the distribution of Zudaifu ointment through e-commerce has been proven to violate Article 8 paragraph (1) of Law Number 8 of 1999 concerning Consumer

³⁷ Oktaviandra, Sumiyati, and Hadian Rahim, "Perlindungan Hukum Konsumen Pengguna Obat Tradisional Tanpa Izin Badan Pengawas Obat Dan Makanan (Bpom) Yang Diedarkan Secara Daring Pasca Pandemi Covid-19."

³⁸ Shientiarizki et al., "Perlindungan Hukum Bagi Konsumen Terhadap Peredaran Obat Tradisional Tanpa Izin Edar Badan Pengawas Obat Dan Makanan."

Protection. A violation of letter a occurs because the product does not possess a distribution permit from the National Agency of Drug and Food Control (BPOM), thereby failing to meet the standards required under prevailing laws and regulations. Furthermore, a violation of letter d is reflected in the discrepancy between the actual condition of the product and the information stated on its label, while a violation of letter e is evident in the inconsistency between the product's composition and the information conveyed to consumers. The product is promoted as a herbal-based traditional medicine; however, based on BPOM supervision findings, it contains miconazole nitrate, which is a chemical drug substance. This condition confirms that the information provided does not accurately represent the true nature and composition of the product. In addition, a violation of letter f arises from promotional claims portraying the product as a safe herbal remedy, which are misleading and inconsistent with the product's actual condition. These four violations are interrelated and collectively demonstrate that the business actor has failed to fulfill the standard of truthful information, which constitutes a fundamental requirement in fair and responsible trade practices.

Non-compliance with Article 8 in the distribution of Zudaifu ointment is closely related to the violation of consumer rights and the neglect of obligations by business actors. Under Article 4 letter a, consumers are entitled to "the right to comfort, safety, and security in consuming goods and/or services." This right means that every consumer is entitled to receive goods that do not endanger their health or safety when used as intended.³⁹ However, in the case of Zudaifu ointment distributed through e-commerce, the product has been found to contain a pharmaceutical chemical substance, namely miconazole nitrate. The presence of miconazole nitrate undermines consumers'

³⁹ Chandra Adi Gunawan Putra, I Nyoman Putu Budiarta, and Ni Made Puspasutari Ujianti, "Perlindungan Hukum Terhadap Konsumen Dalam Perspektif Kesadaran Hukum Masyarakat" 4, no. 1 (2023): 13–19, <https://doi.org/https://doi.org/10.22225/jkh.4.1.6180.13-19>.

rights to safety and security. The presence of miconazole nitrate has undermined consumers' rights to safety and security. This non-compliance with consumer rights also has implications under Article 4 letter c, which states that consumers are entitled to "the right to accurate, clear, and honest information regarding the konsidi and guarantees of goods and/or services." The discrepancy between the promotion of Zudaifu ointment as a natural medicine and its actual composition creates information asymmetry, consequently rendering consumers susceptible to health and safety risks. The absence of marketing authorization from BPOM further undermines the assurance of product safety. This demonstrates that consumer protection, as regulated under Article 4 of Law Number 8 of 1999, plays a pivotal role in ensuring that consumers receive products that are safe and consistent with the information provided.

Furthermore, non-compliance with consumer rights is closely correlated with the neglect of business actors' obligations as stipulated in Article 7 of Law Number 8 of 1999 concerning Consumer Protection. Pursuant to Article 7 letter a, business actors are required to act in good faith in conducting their business activities. In the case of Zudaifu ointment distributed through e-commerce without a distribution permit from the National Agency of Drug and Food Control (BPOM), and containing a chemical drug substance in the form of miconazole nitrate that is not disclosed to consumers, such circumstances indicate the absence of good faith. The misrepresentation of chemical content as herbal ingredients constitutes non-compliance with this obligation.⁴⁰ In line with consumers' rights under Article 4 letter c, Article 7 letter b further imposes an obligation on business actors to provide accurate,

⁴⁰ Rizka and Dimas Aji Novianto, "Perlindungan Konsumen Terhadap Obat Tradisional Ilegal Yang Mengandung Bahan Kimia Obat (BKO) Consumer Protection on Illegal Traditional Medicine Containing Chemical Medicine" 14 (2025): 1–14, <https://ejurnal.umbima.ac.id/index.php/jurnalhukum/article/view/329/204> .

clear, and transparent information regarding the condition of goods. Business actors selling Zudaifu ointment have failed to fulfill this obligation by promoting the product as natural or herbal, whereas BPOM supervision findings confirm the presence of miconazole nitrate. The provision of misleading information has the potential to deceive consumers, particularly since such chemical substances may cause adverse effects if used excessively or over a prolonged period. Moreover, Article 7 letter d establishes the obligation of business actors to ensure that goods meet applicable standards. In the case of Zudaifu ointment distributed through e-commerce, the product is known to lack a distribution permit from BPOM. This absence of regulatory approval indicates that the business actors have neglected their obligation to ensure product quality in accordance with established standards.

Based on this analysis, the circulation of Zudaifu ointment through e-commerce demonstrates non-compliance with the provisions of Article 8 of Law Number 8 of 1999 concerning Consumer Protection. This provision prohibits business actors from trading goods that fail to meet required standards, are inconsistent with the condition stated on the label or product information, have a composition inconsistent with such information, and do not conform to promises made in sales promotions. Such non-compliance results in the non-fulfillment of consumer rights under Article 4, particularly the right to comfort, security, and safety in the use of goods, as well as the right to receive accurate, clear, and honest information regarding the condition of the goods being traded. Furthermore, the trading of products without marketing authorization and the provision of information that is inconsistent with the actual condition indicate that business actors have failed to comply with their obligations as stipulated in Article 7.

The circulation of products that do not comply with statutory provisions gives rise to legal consequences in the form of liability for business actors. Provisions regarding such liability are set out in Article

19 paragraph (1) Article 19 paragraph (1) explicitly states that business actors are liable to provide compensation for consumer losses arising from the use of the goods traded. In the case of the circulation of Zudaifu ointment through e-commerce, the liability of business actors becomes particularly important because the product is traded as a natural medicine claimed to be made from herbal ingredients and safe for use. However, findings from the Indonesian Food and Drug Authority (BPOM) indicate that the product does not possess marketing authorization and contains a pharmaceutical chemical substance, namely miconazole nitrate.⁴¹ This condition demonstrates that the product being traded does not correspond to the information conveyed to consumers. The use of a product containing pharmaceutical chemical substances without the knowledge of consumers may pose health risks, thereby potentially causing harm to consumers as users of the product.⁴² The form of compensation to be provided by business actors may include refunds, replacement of goods of an equivalent type or value, health care, and/or the provision of compensation in accordance with applicable provisions, as stipulated in Article 19 paragraph (2). These provisions indicate that the liability of business actors is not limited to product replacement but may also extend to the recovery of losses suffered by consumers.⁴³ Accordingly, based on the provisions of Article 19 of Law Number 8 of 1999 concerning Consumer Protection, business actors who trade Zudaifu ointment may be held liable for losses suffered by consumers as a result of the use of the product if fault is established. Such liability constitutes a form of legal protection for

⁴¹ BPOM, "BPOM Cegah Peredaran 61 Jenis Obat Bahan Alam Mengandung Bahan Kimia Obat Sebagai Upaya Perlindungan Terhadap Kesehatan Masyarakat."

⁴² Diniar Hapsari et al., "Perlindungan Konsumen Obat Tradisional Yang Mengandung Bahan Kimia Obat Di Kota Surakarta" 19, no. 4 (2024), <https://doi.org/https://doi.org/10.62383/konsensus.v1i4.263>.

⁴³ Saly et al., "Analisis Yuridis Tanggung Jawab Ganti Kerugian Oleh Pelaku Usaha Atas Tindakan Wanprestasi Sebagai Upaya Perlindungan Konsumen."

consumers against the circulation of products that do not meet applicable safety and quality standards.

In e-commerce transactions, sellers offer products through electronic systems, enabling the process of offering and transactions to be conducted online.⁴⁴ Through this mechanism, sellers are required not only to offer products but also to provide information regarding the condition, benefits, and characteristics of the goods being traded. Interactions between sellers and consumers in e-commerce transactions give rise to a legal relationship based on electronic agreements. Such agreements are formed through the mutual consent of the parties, fulfilling the legal requirements of a valid contract and thereby creating binding rights and obligations for each party.⁴⁵

In such sales transactions, the seller acts as the party who trades goods to consumers and derives profit from the business activities carried out. Therefore, the seller qualifies as a business actor as referred to in Article 1 point 3 of Law Number 8 of 1999 concerning Consumer Protection. The provision provides that “a business actor is any individual or business entity, whether in the form of a legal entity or a non-legal entity, established and domiciled or conducting activities within the jurisdiction of the Republic of Indonesia, either individually or jointly through agreements in organizing business activities across various economic sectors.” This status places the seller as the party responsible for the products traded to consumers, including ensuring that the goods marketed comply with applicable safety standards and do not cause harm to consumers.

In the case of the distribution of Zudaifu ointment, such responsibility becomes particularly significant, as evidenced by findings

⁴⁴ Lenciana Aprilia Anggraeni, “Tantangan Kompetisi Dan Risiko Monopoli Dalam Transformasi Digital E-Commerce Dengan Studi Kasus Aplikasi TikTok Di Indonesia,” 2023, 87–108.

⁴⁵ Muhammad Noor Ridani, Muhammad Syarif Hidayatullah, and Fuad Luthfi, “Hubungan Pelaku Usaha Dan Konsumen Menurut Tinjauan Hukum Transaksi Elektronik” 3, no. 11 (2024): 111–20, <https://doi.org/https://doi.org/10.58355/justices.v3i2.107>.

from the Indonesian Food and Drug Authority (BPOM) indicate that the product does not possess marketing authorization and contains pharmaceutical chemical substances in the form of miconazole nitrate. These findings demonstrate that the product does not meet the safety and quality requirements as stipulated in regulations governing natural medicines. Accordingly, sellers who continue to trade such products through e-commerce may be considered to violate the standards required under applicable laws and regulations.

The issue becomes increasingly complex when examined in relation to product marketing practices. In various listings presented on e-commerce platforms, Zudaifu ointment is promoted as a natural medicine intended to treat a range of skin conditions.⁴⁶ Such claims may create the perception that the product is relatively safe due to its purported natural composition. However, findings indicating the presence of pharmaceutical chemical substances in the product reveal a discrepancy between the information conveyed in promotional materials and the actual condition of the product being traded.

If the distribution of such products is proven to result in consumer losses, sellers as business actors may be held legally liable for damages arising from the use of the product. Such liability may be realized through the provision of compensation to consumers, including refunds, replacement of products of equivalent value, or other forms of compensation in accordance with the provisions of Article 19 of Law Number 8 of 1999 on Consumer Protection.⁴⁷ Accordingly, in the distribution of Zudaifu ointment, primary responsibility rests with sellers as the parties directly engaged in transactions with consumers. This responsibility includes the obligation to ensure that the products traded possess marketing authorization and meet safety requirements. The failure to fulfill these aspects indicates non-compliance with the

⁴⁶ Halodoc, "Efek Samping Salep Zudaifu: Awas Risiko Ini."

⁴⁷ Republik Indonesia, "Undang Undang Tentang Perlindungan Konsumen" (1999).

obligations of business actors in ensuring consumer safety as regulated under applicable laws and regulations.

In addition to the liability of sellers as business actors who directly trade products to consumers, the distribution of Zudaifu ointment through e-commerce also involves the role of digital platforms as electronic system providers. In this context, platforms do not only function as intermediaries but also have a responsibility to supervise the products traded within their systems. Such activities fall within the scope of Electronic Commerce (PMSE) as regulated under Government Regulation Number 80 of 2019 concerning Electronic Commerce. In this regulation, e-commerce platforms are positioned as parties that provide a system through which business actors may offer goods and/or services.⁴⁸ This position places platforms as electronic system providers that are not merely passive, but also bear certain responsibilities to ensure that trading activities conducted through their systems do not violate applicable laws and regulations.

The existence of e-commerce platforms enables the distribution of goods to occur more widely and rapidly, as transactions can be conducted anytime and anywhere.⁴⁹ This is evident in the distribution of Zudaifu ointment, which is widely marketed through online marketplaces with claims as a natural medicine for various skin conditions. Such digital accessibility significantly expands the product's reach in the online market, thereby increasing the scale of potential risks faced by consumers.⁵⁰

At the same time, the ease of access in e-commerce systems may create opportunities for the distribution of products that do not comply with legal provisions if not accompanied by adequate supervision

⁴⁸ Pemerintah Indonesia, "Peraturan Pemerintah Republik Indonesia Nomor 80 Tahun 2019 Tentang Perdagangan Melalui Sistem Elektronik" (2019).

⁴⁹ Sobirin and Choeriyah, "PERLINDUNGAN HUKUM TERHADAP KONSUMEN DALAM TRANSAKSI E-COMMERCE DITINJAU DARI UNDANG-UNDANG PERLINDUNGAN KONSUMEN."

⁵⁰ Abdan Sifa et al., "Transformasi Digital E-Commerce Dalam Menguasai Kosentrasi Pasar Di Indonesia" 2, no. 12 (2024): 405–13, <https://doi.org/https://doi.org/10.61722/jiem.v2i12.3239>.

mechanisms.⁵¹ In the case of Zudaifu ointment, the product distributed through e-commerce platforms does not possess marketing authorization and contains pharmaceutical chemical substances in the form of miconazole nitrate, which is prohibited in natural medicines. This condition demonstrates that digital trading systems may be utilized to distribute products that do not meet safety standards if business actors fail to fulfill their obligations responsibly.

To address these risks, regulations on Electronic Commerce require platform providers to ensure transparent and accountable trading systems. This includes the obligation of business actors to “provide accurate, clear, and honest information regarding their legal identity supported by valid data or documents; to provide accurate, clear, and honest information regarding the condition and guarantee of the goods and/or services traded, including the electronic system used in accordance with its characteristics, functions, and role in the transaction; and to comply with advertising ethics in accordance with applicable laws and regulations.” These obligations are intended to create a safe digital trading ecosystem and to protect consumers from harmful practices.

In the case of the circulation of Zudaifu ointment, e-commerce platforms are positioned as providers of electronic trading facilities that serve as a medium for sellers to offer products to consumers. Although they do not directly produce or trade the products, these platforms provide the system that enables products to be traded and widely accessed by the public. This position affirms that the liability of digital platforms is not direct with respect to the products traded, but rather takes the form of indirect liability in the administration of the electronic commerce system. Such liability is reflected in the obligation to provide

⁵¹ Desak Made Chintya Dewi and Ayu Putu Lakmi Danyathi, “Perlindungan Hukum Terhadap Konsumen Obat Tradisional Dengan Kandungan Bahan Kimia Obat Yang Beredar Di E-Commerce” 10, no. 8 (2022): 727–37, <https://ojs.unud.ac.id/index.php/kerthanegara/article/view/93846/48922>.

a transparent system and to supervise the products traded through the platform to ensure compliance with applicable laws and regulations and to prevent harm to consumers.

Conclusion

The rapid expansion of information and communication technology, particularly through e-commerce platforms, has transformed the distribution patterns of health products. This transformation has enabled consumers to access a wider range of medicines more easily. However, this condition also creates opportunities for the circulation of products that fail to meet safety standards, as reflected in the circulation of Zudaifu ointment, which is marketed as a natural medicine but does not possess marketing authorization and contains a pharmaceutical chemical substance, namely miconazole nitrate. The discrepancy between product claims and actual composition may pose risks to consumer health and indicates violations of legal provisions in the fields of health and consumer protection.

Legal protection for consumers against the circulation of natural medicines containing pharmaceutical chemical substances through e-commerce has been regulated under Law Number 8 of 1999 on Consumer Protection, particularly through the recognition of consumer rights under Article 4, the obligations of business actors under Article 7, and the prohibition against trading goods that fail to comply with the required standards as stipulated in Article 8. In this context, the act of trading products without marketing authorization and providing information that does not correspond to the actual condition of the product constitutes a violation of these provisions and results in the non-fulfillment of consumer rights. Business actors, as parties directly engaged in trading products, bear primary responsibility for ensuring the safety, quality, and accuracy of product information. Under Article 19 of the Consumer Protection Law,

business actors may be held legally liable through the obligation to compensate consumers if losses are proven.

In electronic commerce transactions, such responsibility is not limited to sellers as business actors but also involves e-commerce platforms as electronic system providers that facilitate trading activities. These platforms are not entirely passive but bear indirect responsibility in supervising the products traded within their systems. The fulfillment of business actors' obligations constitutes an important factor in the protection of consumer rights. The efficacy of consumer protection is also determined by strengthened supervision and the optimization of the role of e-commerce platforms in creating a safe, transparent, and accountable digital trading ecosystem.

References

- Anggraeni, Lenciana Aprilia. "Tantangan Kompetisi Dan Risiko Monopoli Dalam Transformasi Digital E-Commerce Dengan Studi Kasus Aplikasi TikTok Di Indonesia," 2023, 87–108.
- Barkatullah, Abdul Halim. *Hak-Hak Konsumen*. Bandung: Nusamedia, 2017.
- BPOM. "BPOM Cegah Peredaran 61 Jenis Obat Bahan Alam Mengandung Bahan Kimia Obat Sebagai Upaya Perlindungan Terhadap Kesehatan Masyarakat." pom.go.id, 2025. <https://www.pom.go.id/siaran-pers/bpom-cegah-peredaran-61-jenis-obat-bahan-alam-mengandung-bahan-kimia-obat-sebagai-upaya-perlindungan-terhadap-kesehatan-masyarakat>.
- BPOM. "Kepala BPOM Dorong Masyarakat Melek Literasi Digital Untuk Wujudkan Generasi Indonesia Emas 2045." Badan POM, 2024. <https://www.pom.go.id/berita/kepala-bpom-dorong-masyarakat-melek-literasi-digital-untuk-wujudkan-generasi-indonesia-emas-2045>.
- Dewi, Desak Made Chintya, and Ayu Putu Lakmi Danyathi. "Perlindungan Hukum Terhadap Konsumen Obat Tradisional Dengan Kandungan Bahan Kimia Obat Yang Beredar Di E-Commerce" 10, no. 8 (2022): 727–37. <https://ojs.unud.ac.id/index.php/kerthanegara/article/view/93846/48922>.
- Fista, Yanci Libria, and Aris Machmud. "Perlindungan Hukum Konsumen

- Dalam Transaksi E-Commerce Ditinjau Dari Perspektif Undang-Undang Perlindungan Konsumen” 12 (2023): 177–89. <https://doi.org/https://doi.org/10.37893/jbh.v12i1.599>.
- Giovanni, Kadek Dwi, and Anak Agung Sri Indrawati. “Perlindungan Hukum Bagi Konsumen Terhadap Peredaran Obat Online Yang Tidak Sesuai Dengan Komposisi Obat Asli” 10, no. 5 (2022): 1037–45. <https://doi.org/https://doi.org/10.24843/KS.2022.v10.i05.p05>.
- Goni, Nur Abdul, Febriana Astuti, Zainal Abidin, and Gunawan Purwanto. “Peredaran Obat Secara Daring Di Indonesia , Kemajuan Atau Ancaman,” no. 4 (2026): 1–12. <https://doi.org/https://doi.org/10.47134/scpr.v2i4.5115>.
- Halodoc. “Efek Samping Salep Zudaifu: Awas Risiko Ini.” halodoc.com, 2026. https://www.halodoc.com/artikel/efek-samping-salep-zudaifu-awas-risiko-ini?srsId=AfmBOor86BV-VFuOWQKyw8XXd5gSjaXC-avEC_kThwyEiBoP92wGeX-8.
- Hapsari, Diniar, Aris Prio, Agus Santoso, Rina Arum Prastyanti, Universitas Duta, Bangsa Surakarta, Alamat Jln, Kimangun Sarkoro, Kecamatan Banjarsari, and Kota Surakarta. “Perlindungan Konsumen Obat Tradisional Yang Mengandung Bahan Kimia Obat Di Kota Surakarta” 19, no. 4 (2024). <https://doi.org/https://doi.org/10.62383/konsensus.v1i4.263>.
- Haris, Ahmad, and Levina Yustitianiingtyas. “Perlindungan Hukum Konsumen Terhadap Transaksi E- Commerce Pada Penjualan Barang Palsu” 3, no. 2 (2024): 67–87. <https://doi.org/https://doi.org/10.30651/aca.v3i2.22317>.
- Hasibuan, H. A. Lawali. “Metode Penafsiran Hukum Sebagai Alat Mencari Keadilan Hakiki” 15 (2023). <https://doi.org/https://doi.org/10.58350/leg.v15i2.351>.
- Izazi, Firyaal Shabrina, Priya Sajena, Ratnarisa Sashi Kirana, and Kristin Marsaulina. “Perlindungan Hukum Terhadap Konsumen Dalam Transaksi E-Commerce Melalui Undang-Undang Nomor 8 Tahun 1999 Tentang Perlindungan Konsumen Dan Peraturan Pemerintah (Pp) Nomor 80 Tahun 2019” 1, no. 2 (2024): 8–14.
- Julianti, Frida, and Asep Hakim Zakiran. “Pertanggung Jawaban Terhadap Obat Tradisional Tanpa Izin Edar Yang Dijual Secara Online Melalui E-Commerce Berdasarkan Undang-Undang Perlindungan Konsumen No. 8 Tahun 1999,” no. 8 (2025). <https://doi.org/https://doi.org/10.29313/bcsls.v5i1.16036>.
- Junior, Fevrie Rizqie Saefudin, and Liya Sukma Muliya. “Perlindungan Hukum Terhadap Konsumen Terkait Informasi Yang Tidak Sesuai Ditinjau Dari Undang-Undang Nomor 8 Tahun 1999 Tentang Perlindungan Konsumen,” 2023. <https://doi.org/https://doi.org/10.29313/bcsls.v3i1.4950>.
- Khaira, Safwatul, Teuku Yudi Afrizal, and Ramziati. “Perlindungan Hukum Bagi Konsumen Terhadap Peredaran Obat Tradisional Yang Mengandung Bahan Berbahaya (Studi Penelitian Di Kabupaten Aceh Utara)” VIII (2025). <https://ojs.unimal.ac.id/jimfh/%0A>.

- Listiani, Komang Vina, and I Wayan Gde Wiryawan. "Peran Balai Besar Pengawas Obat Dan Makanan (Bbpom) Di Denpasar Terhadap Peredaran Obat Bahan Alam Yang Mengandung Bahan Kimia Obat Di Kota Denpasar" 05, no. 02 (2025): 326–35. <https://doi.org/https://doi.org/10.36733/jhm.v5i2>.
- Marzuki, Peter Mahmud. *Penelitian Hukum*. Jakarta: Kencana Prenada Media Group, 2021.
- Nurrahma Masturi, Frida, Asep Herlan, Al Fiani Nenden Iryatin, and Agus Mardianto. "Tantangan Dan Peran Hukum Perlindungan Konsumen Pada Era Ekonomi Digital" 7, no. 1 (2025): 1–21. <https://doi.org/10.20884/1.slr.2025.7.1.16095>.
- Oktaviandra, Devia, Yeti Sumiyati, and Agus Hadian Rahim. "Perlindungan Hukum Konsumen Pengguna Obat Tradisional Tanpa Izin Badan Pengawas Obat Dan Makanan (Bpom) Yang Diedarkan Secara Daring Pasca Pandemi Covid-19" 6, no. 4 (2025): 1–15. <https://jhlrg.rewangrencang.com/>.
- Pembayun, Eys Putri, and Arifin Faqih Gunawan. "Perlindungan Hukum Terhadap Konsumen Dalam Transaksi Digital: Tinjauan Terhadap Implementasi UU Perlindungan Konsumen Di Marketplace" 3 (2025): 84–94. <https://doi.org/https://doi.org/10.58819/jfh.v3i2.156>.
- Prayuti, Yuyut. *Perlindungan Konsumen Di Era Digital: Teori Dan Realita - Seruan Refleksi Dan Harapan Untuk Masa Depan Perlindungan Konsumen*. Edited by Erna Listiawati. Kota Malang: PT. Literasi Nusantara Abadi Grup, 2024.
- Putra, Chandra Adi Gunawan, I Nyoman Putu Budiarta, and Ni Made Puspasutari Ujianti. "Perlindungan Hukum Terhadap Konsumen Dalam Perspektif Kesadaran Hukum Masyarakat" 4, no. 1 (2023): 13–19. <https://doi.org/https://doi.org/10.22225/jkh.4.1.6180.13-19>.
- Ridani, Muhammad Noor, Muhammad Syarif Hidayatullah, and Fuad Luthfi. "Hubungan Pelaku Usaha Dan Konsumen Menurut Tinjauan Hukum Transaksi Elektronik" 3, no. 11 (2024): 111–20. <https://doi.org/https://doi.org/10.58355/justices.v3i2.107>.
- Rizka, and Dimas Aji Novianto. "Perlindungan Konsumen Terhadap Obat Tradisional Ilegal Yang Mengandung Bahan Kimia Obat (BKO) Consumer Protection on Illegal Traditional Medicine Containing Chemical Medicine" 14 (2025): 1–14. <https://ejurnal.umbima.ac.id/index.php/jurnalhukum/article/view/329/204>.
- Rosa, Ratih Brity, and Endang Prasetyawati. "Tanggung Jawab Hukum Konsumen Atas Kerugian Mengonsumsi Jamu Yang Mengandung Bahan Kimia," 2024. <https://doi.org/https://doi.org/10.52249/ilr.v4i1.244>.
- Saly, Jeane Neltje, Silvia Cahyadi, Mishaël Joshua, and Maurend Benaya Immanuel S. "Analisis Yuridis Tanggung Jawab Ganti Kerugian Oleh Pelaku Usaha Atas Tindakan Wanprestasi Sebagai Upaya Perlindungan Konsumen" 2, no. 2 (2023): 962–69.

- <https://doi.org/https://doi.org/10.57235/qistina.v2i2.842>.
- Shahid, Mudassar, Afzal Hussain, Azmat Ali Khan, Amer M Alanazi, Ahmed L Alao, Mahboob Alam, and Mohhammad Ramzan. "Antifungal Cationic Nanoemulsion Ferrying Miconazole Nitrate with Synergism to Control Fungal Infections : In Vitro , Ex Vivo , and In Vivo Evaluations," 2022. <https://doi.org/10.1021/acsomega.2c01075>.
- Shientiarizki, Amy, Ahmad Fadhli Busthomi, Maya Pramudita, and Rahayu Sri. "Perlindungan Hukum Bagi Konsumen Terhadap Peredaran Obat Tradisional Tanpa Izin Edar Badan Pengawas Obat Dan Makanan," 2026, 6008–23. <https://doi.org/https://doi.org/10.61104/alz.v4i1.4337>.
- Sifa, Abdan, Isti Masruroh, Muhamad Abdan Zulfa, Sirfi Nur Fitriani, and Naerul Edwin Kiky Aprianto. "Transformasi Digital E-Commerce Dalam Menguasai Kosentrasi Pasar Di Indonesia" 2, no. 12 (2024): 405–13. <https://doi.org/https://doi.org/10.61722/jiem.v2i12.3239>.
- Sobirin, Lida Apriliani, and Putri Utami Choeriyah. "PERLINDUNGAN HUKUM TERHADAP KONSUMEN DALAM TRANSAKSI E-COMMERCE DITINJAU DARI UNDANG-UNDANG PERLINDUNGAN KONSUMEN" 7, no. 1 (2024): 284–89. <https://doi.org/https://doi.org/10.56301/csj.v7i1.1457>.
- Tharsyah, Zouvry Imam, Budiono, Sri Dwiyaniti, and Imas Rosidawati Wiradarja. "Perlindungan Hukum Terhadap Konsumen Atas Peredaran Obat Tradisional Yang Mengandung Bahan Kimia Obat (BKO): Analisis Tanggung Jawab Produsen Dan Peran Pengawasan Bpom Ditinjau Dari Undang-Undang Nomor 8 Tahun 1999 Tentang Perlindungan Konsumen" 7, no. 1 (2026): 65–73. <https://ejournals.com/ojs/index.php/jihk/article/view/4645>.
- Utami, Anisa, and Herwastoeti. "Perlindungan Hukum Terhadap Konsumen Atas Penjualan Obat-Obatan Ilegal Secara Online" 1, no. 2 (2022): 93–116. <https://doi.org/https://doi.org/10.32503/klausula.v1i2.2727>.
- Wahjuni, Edi. "Tanggung Jawab Pelaku Usaha Terhadap Kerugian Konsumen Akibat Kosmetik Bersteroid" 11, no. 1 (2022): 67–82. <https://doi.org/https://doi.org/10.56013/rechtens.v11i1.1268>.
- Yessy, Kusumadewi, and dan Grace Sharon. *Hukum Perlindungan Konsumen, Jakarta*, 2022.
- Indonesia. Peraturan Pemerintah Republik Indonesia Nomor 80 Tahun 2019 Tentang Perdagangan Melalui Sistem Elektronik (2019).
- Indonesia. Undang Undang tentang Perlindungan Konsumen (1999).