

Regulating Dark Patterns in Indonesian E-Commerce: Comparative Lessons from South Korea and the EU

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Abstract

The proliferation of dark patterns, which are manipulative interface designs that influence user decisions, poses a major legal challenge in e-commerce by compromising consumer autonomy. However, existing Indonesian legal instruments (Consumer Protection Law, the amended EIT Law, and the Personal Data Protection Law) do not explicitly address them. The core legal issue lies in the absence of clear legal provisions, definitions, and enforcement mechanisms governing dark patterns in Indonesia's digital marketplace. This study aims to evaluate the regulatory gaps in Indonesia's consumer protection framework by comparing it with more advanced legal systems in South Korea and the European Union. Employing a normative legal research method and a comparative-legal approach, the study analyzes legal texts and institutional mechanisms from all three jurisdictions. The findings indicate three regulatory gaps in Indonesia: the lack of explicit substantive prohibitions, the absence of specialized institutional oversight, and the unavailability of technical guidelines for digital interface governance. In contrast, South Korea regulates five categories of dark patterns through its E-Commerce Act and enforces compliance through the Korea Fair Trade Commission, while the European Union explicitly prohibits deceptive design practices under the Digital Service Act, supported by the UCPD, GDPR, and the EDPB Guidelines. These comparative insights indicate that Indonesia's reactive regulatory posture fails to reflect the ideals of justice, legal certainty, and social utility as articulated by Gustav Radbruch. Academically, this study contributes by offering a structured three-pillar framework: substantive norms, institutional strengthening, and technical guidelines, as a foundation for developing a more adaptive and consumer-centered digital regulatory system. To remedy this, the study recommends adopting a progressive legal strategy inspired by Satjipto Rahardjo, involving

explicit statutory definitions, institutional reforms, and technical instruments such as interface ethics guidelines and integrated digital dispute resolution systems.

Keywords: Dark Patterns; Consumer Protection; Regulatory Comparison; E-Commerce; Digital Interface Ethics

Introduction

The rapid development of internet-based commerce has significantly transformed both the economy and consumer behavior (Disemadi & Regent, 2021; Prayuti, 2024). As the primary medium for electronic transactions, the internet enables more efficient access to information, communication, and economic activities, consistent with the digital economy's reliance on digital technologies and electronic communications as drivers of modern commercial interactions (Xia et al., 2024). One notable manifestation of this technological advancement is electronic commerce or e-commerce, that defined as the integration of technologies, applications, and business processes that connect companies, consumers, and communities in the exchange of goods, services, and information via electronic means (Banjongprasert, 2024; Jain et al., 2021). In Indonesia, e-commerce has experienced significant annual growth. According to Indonesia's Ministry of Trade Data and Information Center in 2024, the number of e-commerce users rose from 38.27 million in 2020 to 58.63 million in 2023, and is projected to reach 99.1 million by 2029 (Kementerian Perdagangan Republik Indonesia, 2024). This surge reflects a clear shift towards digital consumption patterns.

However, amid this growth lurk negative consequences, particularly the proliferation of manipulative interface design strategies that compromise consumer decision-making (Deligöz, 2025; Koh & Seah, 2023; Sanchez Chamorro, 2024). Intense competition among businesses has fueled the adoption of dark patterns—user interface designs crafted to mislead or coerce consumers into actions misaligned with their preferences (Luguri & Strahilevitz, 2021). Examples include scarcity messaging with countdown timers to instill urgency, and forced continuity, making subscription cancellations difficult (Sin et al., 2025). Additionally, flash sales, cashbacks, and credit-based discount offers

exploit consumers' psychological vulnerability to impulsive purchases (Prayuti, 2024). In this context, legal consumer protection plays a vital role in safeguarding against dark patterns that cause financial and psychological harm.

Consumer protection constitutes a fundamental component of ensuring fair, safe, and socially beneficial market interactions (Fletcher et al., 2023). In Indonesia, this is enshrined in Article 28D(1) of the 1945 Constitution. Further consumer protections concerning e-commerce are established in Law No. 8 of 1999 on Consumer Protection (Law No. 8/1999), Government Regulation (GR) No. 80 of 2019 on Trade through Electronic Systems (hereinafter referred to as GR No. 80/2019), and Law No. 1 of 2024 amending Law No. 11 of 2008 on Electronic Information and Transactions (Law No. 1/2024). Despite this framework, regulatory gaps remain exploitable by commercial actors. Existing regulations prohibit coercion—both physical and psychological—in marketing and commercial offers (Law No. 8/1999, Articles 1 and 15). Electronic transaction regulations (Government Regulation No. 80/2019, Article 39) mandate the disclosure of product specifications, prices, terms and conditions, payment mechanisms, risks, and liability limitations. Law No. 1/2024 (Article 28(1)) also bans the dissemination of false or misleading information that causes material losses to consumers. Nevertheless, no explicit classification of dark patterns exists within these provisions. Consequently, there is a need for clearer legal mechanisms to regulate manipulative interface design and ensure safe digital transactions (Sari KS et al., 2022).

In contrast, South Korea's Korea Fair Trade Commission (KFTC) issued the Guideline for the Voluntary Management of Online Dark Patterns, classifying dark patterns into four categories and nineteen types based on operational intent and consumer harm (Mamidwar & Bhutkar, 2024). For instance, "pressure" tactics include limited-time notices, low-inventory alerts, and emotional language, whereas "misleading" tactics involve fake discounts, false recommendations, and disguised ads. These guidelines align with South Korea's Act on Consumer Protection in Electronic Commerce and Act on Fair Labeling and Advertising, offering clear regulatory boundaries in a manner that parallels European Union (EU) approaches. Similarly, the European Union's

Digital Services Act (DSA) prohibits interface designs that deceive or manipulate users into materially impairing their ability to make informed decisions (Article 25(1)) (Brenncke, 2024a). Complementing this, the European Data Protection Board issued Guidelines 03/2022 on Deceptive Design Patterns in Social Media Platforms, adopting the broader concept of “deceptive design patterns.” These initiatives reinforce consumer protection frameworks within the EU.

Empirical research has underscored the detrimental impact of dark patterns on consumer behavior. Sin et al. (2025) highlight their role in triggering impulsive online purchases, advocating for interventions to mitigate such influence. Comparative analyses by Mamidwar & Bhutkar (2024) reveal varied regulatory responses: South Korea imposes administrative fines up to 3% of annual sales, while the EU levies fines of €20 million or 4% of global revenue—whichever is higher. In contrast, Indonesia’s discourse has largely centered on general consumer manipulation. Studies by Bakti (2023) and Zuleika et al. (2025) address fraud risks in cashback schemes and fake testimonials, while Prayuti (2024) examines algorithmic pricing misuse of personal data. These works indicate the need for deeper investigation into dark patterns within Indonesian e-commerce.

This study advances novelty through a comparative regulatory analysis involving Indonesia, South Korea, and the European Union. These jurisdictions offer contrasting approaches: Indonesia’s implicit regulatory stance, South Korea’s institutionally grounded administrative-protective model, and the EU’s legally explicit, robust framework typified by the DSA. Through this comparison, the research aims to normatively evaluate Indonesia’s legal gaps and derive regulatory lessons. It also broadens legal scholarship by recognizing digital interface design as a pertinent regulatory object in the digital marketplace. Theoretically, this study contributes to consumer protection literature by providing comparative insights into dark patterns in e-commerce across three jurisdictions. Practically, it offers guidance for policymakers, legal practitioners, and stakeholders committed to safeguarding consumer rights. Notably, the study is limited by its reliance on normative and comparative analysis, constraining its capacity to capture empirical consumer experiences with dark patterns.

Additionally, focusing on only three jurisdictions may limit generalizability. Thus, findings should be interpreted in light of each regulatory context.

Research Method

This study adopts a normative legal research method, which is designed to identify and analyze the prevailing legal norms within a specific legal system, with a particular emphasis on legal certainty and stability (Tan, 2021). This methodological approach is aligned with the research objective, namely, to conduct a comparative legal analysis (Disemadi, 2022). Accordingly, the study incorporates several analytical approaches, including the statute approach, the conceptual approach, and the comparative approach, to examine the regulatory landscape across different jurisdictions. In this case, the chosen jurisdictions that are being compared are Indonesia, South Korea, and the European Union.

In selecting South Korea and the European Union as comparative jurisdictions, this study considers their advanced and structured regulatory approaches to digital consumer protection, particularly in addressing dark patterns. South Korea is relevant because it is among the most advanced Asian jurisdictions in regulating digital market conduct, including consumer protection in electronic commerce through the Electronic Commerce Act, which establishes detailed obligations for online businesses and safeguards against misleading or unfair digital practices (Whindari et al., 2024). It is also supported by active enforcement from the Korea Fair Trade Commission (KFTC). Conversely, the European Union represents the most comprehensive regulatory model, as dark patterns are addressed through a multi-layered legal framework that includes the Unfair Commercial Practices Directive (UCPD), General Data Protection Regulation (GDPR), the Digital Services Act (DSA), and the Digital Markets Act (DMA). These instruments collectively provide substantive definitions, explicit prohibitions, and data protection-oriented interface guidelines, forming an integrated regulatory system for combating deceptive design practices (Xhelita & Manthos, 2025). Together, these two jurisdictions offer complementary frameworks that are national and

supranational regulations that illuminate Indonesia's regulatory gaps and provide practical benchmarks for developing adaptive, consumer-centered, and technologically responsive legal reforms.

The research relies on secondary data, with primary legal sources forming the foundation of analysis. In the Indonesian context, these include Law No. 8 of 1999 on Consumer Protection, Law No. 1 of 2024 (as the second amendment to Law No. 11 of 2008 on Electronic Information and Transactions), Law No. 27 of 2022 on Personal Data Protection, and Government Regulation No. 80 of 2019 on Trade through Electronic Systems. In the case of South Korea, the relevant regulations are the Act on the Consumer Protection in Electronic Commerce (Act No. 20302, February 13, 2024), the Fair Labeling and Advertising Act (Act No. 15142, November 28, 2017), the Framework Act on Consumers (Act No. 16178, December 31, 2018), and the Personal Information Protection Act (Act No. 16930, February 4, 2020). Meanwhile, within the European Union, the applicable legal instruments include the Digital Markets Act (DMA), GDPR, DSA, and UCPD. In addition to these primary legal texts, the research also draws on secondary legal materials, which include regulatory guidelines such as the Guideline for the Voluntary Management of Online Dark Patterns issued by the KFTC and the Guidelines 03/2022 on Deceptive Design Patterns in Social Media Platform Interfaces issued by the European Data Protection Board (EDPB). The data collection method is literature-based, involving a comprehensive review of publicly accessible and widely disseminated sources such as academic journal articles, previous studies, expert legal opinions, and other relevant data released by research institutions.

The analytical technique employed is the comparative-normative method, which entails the systematic interpretation and comparison of substantive legal norms across the selected jurisdictions. The analysis focuses on assessing the effectiveness of existing legal frameworks in providing protection against manipulative practices associated with dark patterns. Furthermore, the study explores how progressive legal principles and normative ideals can be applied to strengthen consumer protection laws in Indonesia's digital commerce environment.

Results and Discussions

Comparative Regulatory Frameworks for Consumer Protection Against Dark Patterns in E-Commerce in Indonesia, South Korea, and the EU

The exponential growth of e-commerce has significantly influenced global economic development by eliminating geographical barriers in the exchange of goods and services (Disemadi & Budi, 2023; Rosmayati, 2023; Sudirman & Disemadi, 2023). Retail e-commerce sales worldwide are projected to exceed USD 4.3 trillion by 2025 (Gelder, 2025), highlighting its strategic role in driving global economic growth. According to the Organisation for Economic Co-operation and Development (OECD), e-commerce refers to the process of buying and selling conducted via computer networks using specific methods for ordering and delivering goods and services (Blegen, 2023). From a macroeconomic perspective, e-commerce strengthens economic performance by improving efficiency in trade, expanding production and market access, stimulating technological innovation, and creating new economic opportunities across sectors (Otarinia, 2024). However, this rapid development also presents serious challenges, including threats to personal data protection and an imbalance in bargaining power between consumers and businesses in digital transactions (Ariawan, 2025; Pandey, 2022; Sugianto et al., 2021). The increasing prevalence of opaque content personalization (Zac et al., 2025) further exposes consumers to interface-based manipulation, notably through practices known as dark patterns. Thus, amidst the substantial benefits of e-commerce, it is essential to scrutinize its vulnerabilities, particularly in the realm of consumer protection.

Consumer protection is a legal concept grounded in safeguarding consumers' rights against unfair business practices (Azizah et al., 2024; Leonardo et al., 2025). This principle was first articulated globally by U.S. President John F. Kennedy in the 1962 Declaration of Consumer Rights, which outlines four fundamental entitlements (Widiarty & Saragih, 2024): the right to safe products, the right to be informed, the right to choose, and the right to be heard. The legal

relationship between consumers and businesses is inherently reciprocal, creating rights and obligations that require adequate legal safeguards, especially within digital transactions, where interface design can place consumers in vulnerable and disadvantageous positions (Susipta, 2025). Given the increasing complexity of e-commerce, regulatory frameworks must be clear and adaptive to uphold these consumer rights against manipulative commercial conduct.

In the digital context, dark patterns refer to interface design techniques intentionally crafted to deceive, coerce, or manipulate users into making decisions that are not in their best interest (Bongard-Blanchy et al., 2021; Kitkowska, 2023). These patterns exploit users' cognitive biases by structuring interfaces to guide them toward particular actions. According to Mamidwar & Bhutkar (2024), dark patterns can be categorized into three levels: high-level patterns such as obstruction and forced actions; meso-level patterns, including "roach motel," bait and switch, emotional manipulation, and pre-selected options; and low-level patterns like countdown timers, drip pricing, and privacy mazes. The implementation of dark patterns has been shown to prompt impulsive behaviors, foster user dependency, and result in misuse of personal data (Aung et al., 2024). Consequently, dark patterns represent a serious regulatory concern requiring specific legal measures.

A. Consumer Protection Regulation Against Dark Patterns in E-Commerce in Indonesia

Indonesia's consumer protection in the digital marketplace is governed by a range of legislative instruments intended to ensure safety and fairness in transactions, including e-commerce. The foundational statute is Law No. 8 of 1999 on Consumer Protection, which establishes consumers' rights to safety, accurate information, and fair treatment. This law is complemented by Law No. 1 of 2024 (Second Amendment to the EIT Law), Government Regulation No. 80 of 2019 on Electronic Commerce, and Law No. 27 of 2022 on Personal Data Protection, all of which reinforce consumer rights in the digital era.

Nonetheless, these regulations exhibit critical shortcomings in addressing manipulative digital design practices such as dark patterns. For instance, while

Article 7(b) of the Consumer Protection Law mandates truthful and clear information provision, and Articles 9(1) and 10 prohibit misleading promotion, these provisions focus solely on the content of the information, not the format or interface design through which it is delivered. When legally accurate information is presented using deceptive visual or interaction cues, the absence of specific norms becomes a regulatory loophole. Similarly, Articles 13 and 39 of the Government Regulation on Electronic Commerce require truthful disclosure of technical specifications and terms of sale but do not stipulate standards for ethical or transparent presentation in digital interfaces. Moreover, Article 28(1) and Article 40 (2), (2a), and (2b) of the amended EIT Law prohibit false or disturbing content but fail to address interface-based manipulations that now serve as key vectors for consumer influence in e-commerce.

As a crucial supplement, the Personal Data Protection Law provides comprehensive safeguards for consumers' personal data. Articles 5–13 establish data subject rights, including access, correction, erasure, and withdrawal of consent. Articles 20–28 mandate that data controllers process information lawfully, fairly, and transparently. These provisions are essential for curbing manipulative practices such as psychological targeting or interface personalization based on behavioral profiling. The law also addresses data breach notifications (Article 46), audit and security obligations (Articles 35–39), and administrative and criminal sanctions (Articles 57 and 67–72), thereby reinforcing consumers' legal standing in the digital economy. Nevertheless, the practical effectiveness of these provisions is contingent upon the establishment of a specialized authority with technical expertise in interface design governance—an institutional gap that remains unresolved.

B. Consumer Protection Regulation Against Dark Patterns in E-Commerce in South Korea

In South Korea, consumer protection in e-commerce transactions is governed by a suite of regulatory instruments, including the Act on the Consumer Protection in Electronic Commerce (E-Commerce Act), the Fair Labelling and Advertising Act, the Framework Act on Consumers, and the

Personal Information Protection Act. These regulations are designed to ensure robust consumer safeguards, particularly concerning information transparency, data security, transactional fairness, and the prevention of manipulative practices such as dark patterns. The Korean Fair Trade Commission (KFTC) serves as the principal enforcement body, actively overseeing compliance through investigations, administrative sanctions, and corrective policy initiatives (Dewi et al., 2024). This institutional structure reflects a progressive regulatory and institutional approach to consumer protection.

The Personal Information Protection Act (PIPA) establishes fundamental rights for data subjects (Article 4) and prescribes principles for lawful, fair, and limited data processing (Article 3). Digital platforms are obligated to implement technical and administrative measures to protect data (Article 29) and are prohibited from using such data for unauthorized purposes without explicit consent (Article 18). This legal framework provides comprehensive protection against the covert exploitation of consumer data through personalization strategies (Shahrullah et al., 2024).

Meanwhile, the Framework Act on Consumers outlines key consumer rights, including the right to information, free choice, compensation, and protection from unfair practices (Articles 4 and 12). Article 19 specifically prohibits transactional methods that undermine consumers' rational decision-making, while Article 15 affirms protections against data breaches. The Act also imposes state obligations to establish fair labeling and advertising standards (Articles 10 and 11), ensuring integrity in the dissemination of digital commercial content.

The E-Commerce Act and the Fair Labelling and Advertising Act further reinforce these protections by mandating digital information transparency and ethical presentation standards. Articles 13, 21, and 21-2 of the E-Commerce Act require that businesses provide clear and accessible information and prohibit manipulative interface designs such as hidden buttons or pre-selected options. Additionally, Article 3 of the Fair Labelling and Advertising Act prohibits misleading or unfair comparative advertising, while Articles 4–5 authorize the KFTC to regulate the content and format of information presentation.

Beyond these binding provisions, the KFTC has issued the Guideline for the Voluntary Management of Online Dark Patterns, which categorizes 19 types of dark patterns under four main classes and provides technical guidance for businesses to avoid deceptive or coercive interface designs. While not legally binding, the guideline complements the formal legal framework by addressing practical gaps and fostering regulatory compliance. Collectively, South Korea's regulatory system exhibits a mature and responsive posture toward the growing challenge of digital manipulation in the e-commerce domain.

C. Consumer Protection Regulation Against Dark Patterns in E-Commerce in the European Union

In the European Union, consumer protection in e-commerce is governed through an interconnected framework of supranational regulations that explicitly address digital manipulation, including dark patterns. The key regulatory pillars include the General Data Protection Regulation (GDPR) for data protection, the Unfair Commercial Practices Directive (UCPD) for monitoring unfair business conduct, and the Digital Services Act (DSA) and Digital Markets Act (DMA) for imposing systemic obligations on digital platforms. The EU approach centers on consumer autonomy, ensuring that users can make free and informed decisions without interference from manipulative interface designs (Brenncke, 2024b).

The GDPR enshrines principles such as legality, transparency, and data protection by design (Articles 5–7 and 25). Deceptive design elements such as implicit consent, hidden information, and emotional manipulation may constitute violations of data subjects' rights, particularly regarding automated data collection and processing (Articles 21–22). The Guidelines 03/2022 on Deceptive Design Patterns in Social Media Platform Interfaces by the European Data Protection Board (EDPB) provide an authoritative interpretation of the GDPR, explicitly identifying six categories of deceptive design (e.g., overloading, stirring, and hidden in plain sight) that contravene transparency and informed consent principles. These guidelines significantly reinforce the GDPR's

applicability in curbing dark patterns, even where financial harm is not directly apparent.

The UCPD and DSA further extend consumer protections by targeting misleading or aggressive digital practices (Articles 5–9 and Annex I of the UCPD) and mandating transparency in recommendation systems and content policies on large digital platforms (Articles 23–28 of the DSA). The DSA obliges platform providers to moderate content openly and accountably, such as monitoring, labeling, limiting, or removing illegal or harmful content while safeguarding users' rights to information. The DMA targets dominant technology firms—designated as “gatekeepers”—prohibiting interface designs that obstruct users from exercising their rights, such as uninstalling applications, changing default settings, or withdrawing consent (Articles 6–7 and Article 13.6).

With its proactive compliance model, systemic oversight, and market power regulation, the EU's legal framework offers comprehensive protection against structured and exploitative design practices in modern e-commerce ecosystems. Moreover, regulations like the GDPR and UCPD empower consumer protection authorities in member states to act against businesses deploying dark patterns on digital platforms (Rosca, 2024).

Based on the preceding analysis, it is evident that Indonesia continues to face significant gaps in digital consumer protection when compared to South Korea and the European Union. The most notable disparity lies in the absence of explicit legal provisions addressing manipulative interface design, or dark patterns, within the Indonesian legal framework. In contrast, South Korea has implemented clear regulations through the E-Commerce Act and the Personal Information Protection Act, further reinforced by technical guidelines issued by the Korea Fair Trade Commission (KFTC). Meanwhile, the European Union has gone a step further by integrating the principle of consumer autonomy into a suite of binding legal instruments, including the GDPR, UCPD, and DSA, supplemented with detailed technical guidelines that define and categorize dark patterns with precision. Indonesia, however, has yet to address the technical dimensions of digital design in a substantive manner, lacking both normative

prohibitions and preventive enforcement mechanisms. This indicates that Indonesia's legal system remains predominantly reactive and ill-equipped to anticipate the intricacies of digital interactions that exploit consumer cognitive biases. Therefore, a systematic examination of the differences among the three jurisdictions—in terms of legal structure, normative definitions, business obligations, and enforcement mechanisms—is imperative for informing the reformulation of Indonesia's consumer protection policies. The following table presents a comparative overview of key regulatory aspects concerning consumer protection against dark patterns in e-commerce across Indonesia, South Korea, and the European Union.

TABLE 1. Comparative Regulatory Frameworks on Dark Patterns in E-Commerce

Aspect	Indonesia	South Korea	European Union
Legal Basis	General law with no explicit regulation on dark patterns: Law No. 8/1999 on Consumer Protection - Law No. 1/2024 (Second Amendment to the EIT Law) - Law No. 27/2022 on Personal Data Protection - Government Regulation No. 80/2019 on E-Commerce	Specific statutory framework regulating digital manipulation: E-Commerce Act (Act No. 20302, 13 Feb 2024) - Labelling and Advertising Act (Act No. 15142, 28 Nov 2017) - Framework Act on Consumers (Act No. 16178, 31 Dec 2018) - PIPA (Act No. 16930, 4 Feb 2020)	Comprehensive and integrated regulatory frameworks: General Data Protection Regulation (GDPR) - Digital Services Act (DSA) - Digital Markets Act (DMA) - Unfair Commercial Practices Directive (UCPD)

Technical Guidelines on Dark Patterns	No technical interface-design guidelines	or	Available on KFTC Guideline for the Voluntary Management of Online Dark Patterns, providing classification and enforcement guidance	Available on EDPB Guidelines 03/2022, offering detailed standarts for identifying and preventing deceptive design practices
Definition of Dark Pattern	No definition	explicit	No explicit term of “dark pattern”, but Article 21-1 of the E-Commerce Act regulates manipulative digital interface practices that constitute dark patterns	Explicit definition provided in DSA Recital (67), identifying dark patterns as deceptive or manipulative interface designs
Prohibition of Dark Patterns	Explicit prohibition. Consumer Protection only prohibits Misleading information (Art. 7(b), Art. 9, Art. 10) - Coercive business practices (Art. 15)	No explicit	The Law - Article 3 of the Fair Labelling and Advertising Act	Prohibited via: - Articles 21 and 21-2 of the E-Commerce Act - Article 5 and 6 of UCPD - Article 25 of DSA
Supervisory Authority	Several relevant bodies: - National Consumer	relevant	Korean Fair Trade Commission (KFTC) (Article 26	European Commission and European Data

	Protection Agency of the E- Protection Board (<i>BPKN</i>) (Art. 31 of Commerce Act), a (EDPB) (Article Consumer central authority 68 of GDPR), a Protection Law) - with an explicit coordinated Ministry of mandate over supranational Communication manipulative oversight with and Digital digital practices specialized (Komdigi) (Art. 58-59 of Data Protection Law) - competence in KPPU (Sengge et al., 2024) interface ethics		
Sanctions for Dark Patterns	Not explicitly regulated. Penalties apply only for misinformation on: - Art. 62 of Consumer Protection Law: imprisonment up to 5 years or a fine up to IDR 2 billion - Art. 80 of E-Commerce Regulation: administrative sanctions from warnings to license revocation	Explicitly governed by the E-Commerce Act on Article 45(3)(2) and 45(4)(7): administrative fines up to 5–10 million KRW	Explicitly regulated under: - Article 13(3) of UCPD: fines up to 4% of annual global turnover - Article 52 of DSA: fines up to 6% of annual global turnover
Dispute Resolution Mechanisms	Available through litigation and non-litigation	Available through mediation by government-	Available through litigation and Online Dispute

	(Consumer Dispute Settlement Board, BPSK) (Article 45 of Consumer Protection Law)	supported consumer mediation organizations (Article 33 of E-Commerce Act)	Resolution (ODR) (Article 21 of DSA)
Regulatory Philosophy	Reactive approach with general prohibitions, relies on broad statutory clauses without UI-specific or interface-focused regulatory rules	Preventive administrative approach emphasizing fair trade, anti-manipulation standards, and proactive oversight by the KFTC	Rights-based and consumer-centric approach emphasizing explicit bans, transparency obligations, and data protection ethics

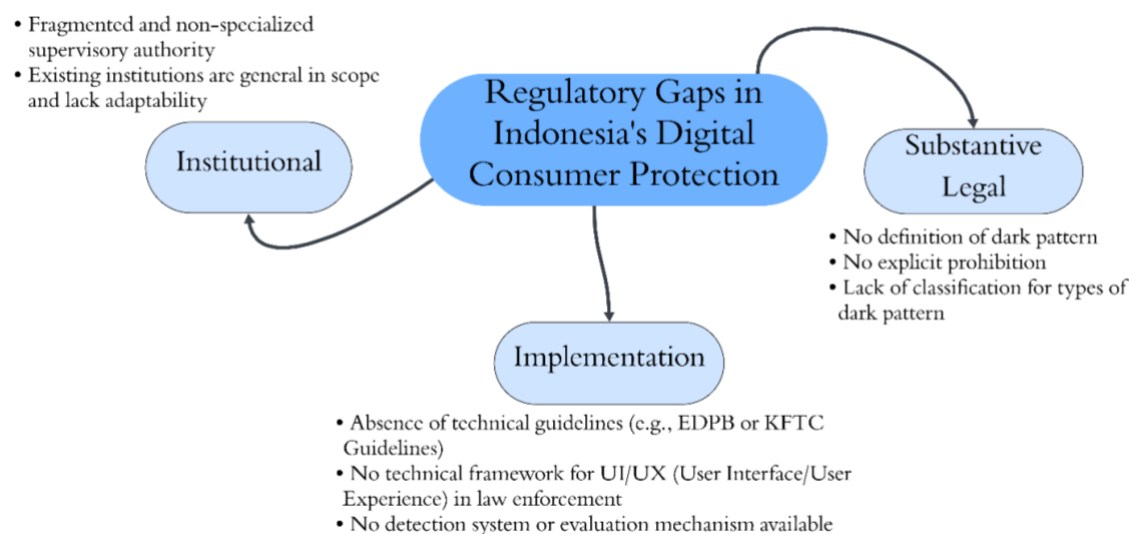
Source: Author's Analysis

Based on the comparative table presented above, it becomes evident that Indonesia remains at an early stage in regulating digital consumer protection, characterized by a general and fragmented framework that does not explicitly address dark patterns in e-commerce. Although existing legal instruments such as the Consumer Protection Law, the Second Amendment to the EIT Law, and the Personal Data Protection Law offer a foundational basis, these statutes are primarily focused on prohibiting misleading content without extending to the design of user interfaces that may covertly influence consumer decision-making. The absence of a legal definition, systematic classification, and technical guidelines leaves significant regulatory gaps, allowing business actors to exploit these ambiguities for manipulative purposes. Institutionally, while Indonesia has relevant bodies such as the National Consumer Protection Agency (BPKN), the Business Competition Supervisory Commission (KPPU), and the Ministry of Communication and Digital (Komdigi), their technical mandate and capacity to supervise manipulative interface design remain limited and fragmented. Unlike

the Korean Fair Trade Commission (KFTC) or the European Data Protection Board (EDPB), which are structurally empowered with explicit oversight responsibilities, Indonesia lacks a central authority with the requisite technical expertise to systematically monitor and enforce interface integrity in digital commerce.

Conversely, South Korea and the European Union have adopted more comprehensive and proactive regulatory approaches. South Korea, through the E-Commerce Act and the Fair Labelling and Advertising Act, explicitly prohibits manipulative digital practices and supplements this legal framework with the KFTC Guidelines, which classify dark patterns into four categories. Enforcement is robust, with the KFTC functioning as an active supervisory authority empowered to impose administrative sanctions. The European Union has gone even further by integrating the prohibition of dark patterns within core legislative instruments such as the GDPR, UCPD, and DSA, which are accompanied by detailed technical guidelines from the EDPB. Furthermore, the EU provides a cross-border Online Dispute Resolution (ODR) mechanism, offering accessible redress for consumers across member states. This regulatory disparity illustrates that Indonesia's legal framework remains reactive and insufficiently responsive to the complexities of digital manipulative practices. Accordingly, this comparison serves as a critical foundation for informing the reformulation of national regulations toward a more adaptive, integrated, and consumer-centric legal regime—one that can effectively safeguard consumer rights in an increasingly digitized marketplace.

FIGURE 1. Mindmap of Regulatory Gaps in Indonesia's Digital Consumer Protection



Source: Authors' Analysis

Structurally, the regulatory gap between Indonesia and its comparative counterparts, which are South Korea and the European Union, can be observed across three core dimensions: legal substance, institutional capacity, and technical implementation. First, in terms of substantive law, Indonesia's existing regulations tend to articulate broad and interpretive norms, such as prohibitions against misleading information, without elaborating specific definitions, classifications, or explicit prohibitions against digital manipulative practices like dark patterns. This is in stark contrast to the EU's approach, which goes as far as to define and categorize dark patterns while setting ethical standards for digital interface design. Second, from an institutional perspective, Indonesia does have relevant agencies such as BPKN, Komdigi, and KPPU. However, regulatory oversight over digital manipulation practices remains fragmented and lacks a designated technical body with an explicit mandate, unlike South Korea's KFTC or the EU's EDPB. The jurisdiction of these Indonesian institutions is dispersed and generally oriented, lacking the agility to respond effectively to the dynamic nature of digital technological developments (Sengge et al., 2024). Third, in terms of technical implementation, Indonesia currently lacks detailed operational guidelines akin to the EDPB Guidelines in the EU or the KFTC Guidelines in South Korea. There are no practical references for businesses or legal enforcers to identify and assess dark pattern practices systematically.

Additionally, there is no standardized evaluation framework to detect and penalize such practices effectively.

This regulatory inadequacy can be critically assessed through Gustav Radbruch's legal theory, which emphasizes the triad of justice, legal certainty, and utility as fundamental values of law. Radbruch asserts that justice stands as the primary value of law, forming the basis for equal treatment under legal norms (Kurniawan & Ezzerouali, 2024). In Indonesia's context, this ideal remains unfulfilled. Consumers who fall victim to manipulative digital practices currently lack explicit legal protection, and in the absence of clear legal norms, their grievances cannot be judicially redressed—leading to an inequitable power imbalance between digital consumers and corporate actors. Justice demands accessible and enforceable protections, particularly in asymmetric relationships like those between users and digital platforms.

With respect to legal certainty, the absence of specific norms and technical guidelines generates interpretative ambiguity, which undermines consistent enforcement. Legal certainty is realized when laws are formulated and applied in a clear, consistent, and predictable manner, providing individuals with certainty regarding their rights and obligations and protecting them from arbitrary actions (Pakpahan, 2025). Without a definition of dark patterns, explicit prohibitions, or detailed guidance, both consumers and businesses are left without reliable benchmarks for determining the legality of certain interface practices. As a result, enforcement becomes highly discretionary and potentially inconsistent, undermining law's essential function as a provider of security and order. This contrasts with the EU and South Korea, where dark pattern regulations offer precise benchmarks and enforcement predictability. From the standpoint of utility, existing regulations have yet to adequately address the rapidly evolving needs of digital society. According to Radbruch, law must fulfill the value of utility, meaning that legal norms should promote societal welfare and serve the common good (Afdhali & Syahuri, 2023; Kurniawan & Ezzerouali, 2024). In this regard, Indonesia's legal framework has not adapted to the complexities of modern digital commerce, which is increasingly dominated by opaque, high-risk design practices. The failure to proactively regulate dark patterns diminishes

law's function as a practical tool for protecting public interest. When the law fails to keep pace with contemporary realities, it not only becomes obsolete but may also contribute to new forms of injustice.

To demonstrate Radbruch's triadic values within Indonesia's digital marketplace, this study employs a hypothetical scenario and intended solely to illustrate how dark patterns operate in practice. Consider an e-commerce platform that automatically pre-selects the most expensive shipping option while visually minimizing or obscuring the button to modify or cancel the selection, resulting in the consumer unintentionally paying higher fees. From the perspective of justice, this design exploits user cognitive biases and creates an unequal transactional position, as consumers are not given a fair opportunity to make informed choices. In terms of legal certainty, the absence of explicit statutory definitions or prohibitions on such interface manipulations makes it difficult for regulators to determine whether the practice constitutes a legal violation, thereby generating inconsistent and unpredictable enforcement. With respect to utility, the unavailability of technical guidelines or operational standards enables this manipulative design to persist, ultimately harming consumer welfare and undermining public trust in digital commerce. This illustration demonstrates how Indonesia's current regulatory framework falls short of satisfying Radbruch's value, reinforcing the necessity of clearer and more responsive legal mechanisms.

In conclusion, this comparative analysis reveals that Indonesia's regulatory framework for protecting consumers against dark patterns in e-commerce is significantly underdeveloped relative to that of South Korea and the European Union. The lack of explicit legal norms, technical guidelines, and dedicated enforcement bodies renders Indonesia's legal system insufficiently responsive to the complex challenges of the digital environment. By contrast, South Korea and the EU have implemented structured and forward-looking regulatory regimes that reinforce consumer protection through clear prohibitions, detailed classifications, and enforceable sanctions. These findings underscore the urgent need for Indonesia to develop a more adaptive, comprehensive, and justice-oriented regulatory strategy that reflects Radbruch's ideals of justice, certainty,

and utility, and is capable of safeguarding consumer rights in the evolving digital economy.

Strengthening Consumer Protection Regulation Against Dark Patterns in E-Commerce in Indonesia: Lessons from South Korea and the EU

As digital interactions in the e-commerce sector become increasingly complex, the urgency for a legal system that is both adaptive and consumer-centered grows correspondingly (O. Santiago et al., 2025). While Indonesia has enacted legal instruments such as the Consumer Protection Law, the Second Amendment to the EIT Law, and the Government Regulation on Electronic Commerce, these regulations fall short in explicitly addressing manipulative practices, such as dark patterns embedded within digital interface design. This regulatory gap poses significant challenges for legal enforcement and evidentiary procedures, which in turn compromise the effectiveness of consumer protection mechanisms (Situmeang et al., 2025). The earlier comparative analysis has shown that South Korea and the European Union have adopted more advanced responses to such challenges through integrated and technically nuanced regulatory approaches. Accordingly, it is imperative that Indonesia strengthen its digital consumer protection framework by incorporating lessons from these two jurisdictions—viewed through the lens of Satjipto Rahardjo's progressive legal theory.

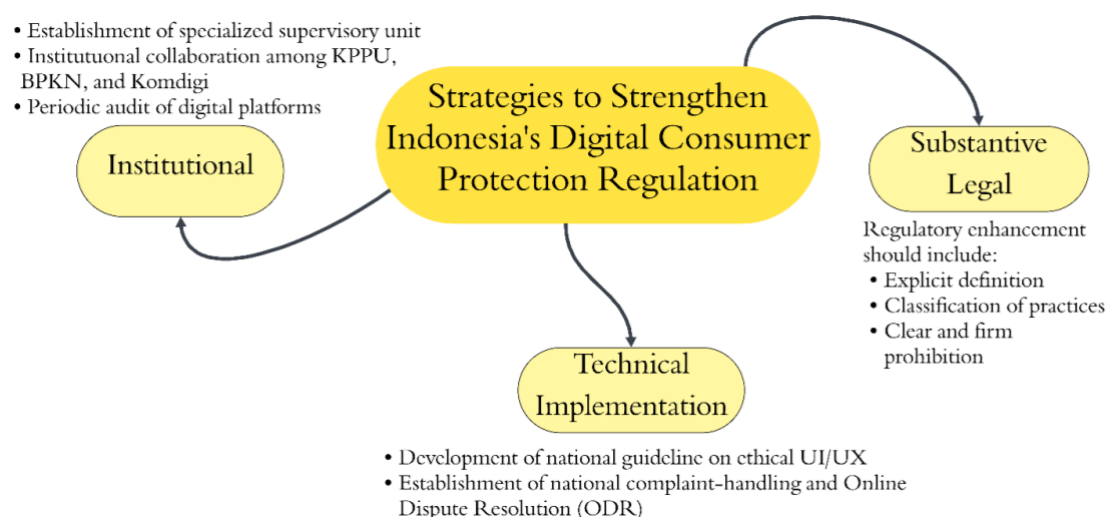
Progressive legal theory posits that law should not be narrowly construed as a collection of codified norms, but rather as a living instrument designed to deliver justice and serve society (Daryoko & Pangestika, 2024; F. Santiago & Asnawi, 2024). Under this view, the law is dynamic, flexible, and responsive to societal transformations, including technological advancements that give rise to novel legal challenges such as dark patterns. Satjipto Rahardjo argues that the law must liberate individuals from injustice rather than rigidly enforcing formalistic rules (Faisal, 2023). In this light, progressive law prioritizes human welfare and substantive justice over the rigid application of legal certainty.

For analytical purposes, this study employs a hypothetical scenario to reflect common interface practices in Indonesian e-commerce, particularly those involving obstruction, hidden information, or hidden costs. Consider an online platform that places a visually dominant “Buy Now” button while concealing or minimizing the “View Details” option, causing consumers to complete a transaction without fully understanding the price breakdowns, add-on charges, or data-sharing implications. While such a design may not explicitly violate current Indonesian regulations, it produces a material disadvantage to consumers and exemplifies the structural imbalance that progressive law seeks to correct. Within Satjipto Rahardjo’s framework, this design constitutes a form of digital injustice because it manipulates users’ cognitive limitations and undermines their substantive autonomy. A progressive legal response therefore requires moving beyond formalistic prohibitions toward proactive regulatory measures, such as explicit statutory definitions, enforceable interface-ethics standards, and an active supervisory role for the relevant institutions to ensure that consumer protection is realized not only textually but in practical, everyday digital interactions.

In the broader context of digital consumer protection, the relevance of progressive legal thought lies in its ability to respond to emerging technological threats in a timely and equitable manner. The systematic manipulation of consumers through dark patterns constitutes a contemporary form of injustice that must not be passively tolerated. From a progressive perspective, legal systems should proactively establish regulatory safeguards that protect society from such emerging harms. This includes active governmental oversight and enforcement against digital platforms that employ manipulative interface designs. Progressive legal theory, therefore, emphasizes that legal protection should not be confined to textual regulations but must be grounded in the lived realities of digital society and the principle of substantive justice. Regulatory frameworks should be designed not merely to prescribe conduct but to ensure meaningful protections that resonate with current social conditions. For Indonesia, this requires moving beyond broad prohibitions and establishing specific, enforceable, and technically

informed regulations on dark patterns, aligned with the human-centered and justice-oriented principles of progressive law.

FIGURE 2. Mindmap of Strategies to Strengthen Indonesia's Digital Consumer Protection Regulation



Source: Authors' Analysis

Based on the prior analysis of structural and normative deficiencies, efforts to strengthen Indonesia's regulatory framework for digital consumer protection should be focused on three key dimensions: legal substance, institutional capacity, and technical implementation. First, in terms of legal substance, Indonesia urgently needs explicit legal provisions that define dark patterns, categorize their various forms, and prohibit their application unequivocally within the national legal system. This can be pursued either through amendments to the Consumer Protection Law or by expanding relevant articles in the Second Amendment to the EIT Law. Clear normative definitions would serve as a foundational reference for enforcement, legal certainty, and consumer empowerment. Second, from an institutional perspective, there is a pressing need to strengthen oversight mechanisms by establishing a dedicated unit focused on digital interface ethics, which could operate under the coordination of institutions such as the KPPU, BPKN, or Komdigi. This specialized body should be equipped with technical competencies to conduct regular audits of digital

platforms, develop practical guidelines, and educate online businesses about ethical interface design practices. Third, in terms of technical implementation, the government should formulate a national guideline on interface ethics based on transparency and non-manipulative principles. Furthermore, it is crucial to develop a digital dispute resolution system, such as ODR, to ensure that consumers have accessible and expedient mechanisms for reporting violations and seeking redress. These three strategies are emblematic of a progressive legal approach, aligned with the vision of Satjipto Rahardjo. Progressive law is dynamic, justice-oriented, and people-centered, a law that evolves to address new technological challenges while ensuring that the protection of consumer rights remains substantive and effective in the digital age.

South Korea's regulatory architecture provides a valuable reference. Although its sanctions for dark patterns are relatively modest compared to the European Union, South Korea has successfully operationalized a comprehensive e-commerce regulatory framework through the E-Commerce Act. The recent amendments under Article 21-2 explicitly prohibit five distinct forms of dark patterns and delegate enforcement authority to the KFTC. The KFTC not only enforces legal compliance (Dewi et al., 2024) but also produces detailed technical guidelines that assist in identifying and proscribing interface-based manipulation (Mamidwar & Bhutkar, 2024). It is also empowered to impose corrective measures and fines of up to 5 million KRW (Shin & Ju, 2024). This model exemplifies a progressive regulatory response, capable of adapting to digital-era challenges while affirming the consumer's status as a protected legal subject.

Similarly, the European Union offers a globally leading model for digital consumer protection. Through a suite of core regulations such as UCPD, GDPR, and most recently, the DSA, the EU has established explicit prohibitions on digital manipulation. These include barriers to subscription cancellation, misleading interface design, and covert advertising on digital platforms (Mamidwar & Bhutkar, 2024). The EDPB Guidelines 03/2022 provide technical guidance for identifying and avoiding deceptive design practices. Importantly, violations may incur substantial administrative fines, reaching up to 6% of a

company's global turnover. The EU's cohesive and rigorous approach reflects a strong commitment to justice and transparency in consumer protection.

Drawing on best practices from South Korea and the European Union, Indonesia should consider adopting a more structured and progressive legal strategy through the following core recommendations: 1) Legal Substance: Introduce explicit prohibitions against dark patterns by incorporating clear definitions and classifications into national legislation, ensuring that legal standards are enforceable and reflect current digital realities; 2) Institutional Framework: Strengthen the mandate and technical capability of supervisory authorities, potentially through the establishment of a specialized unit under KPPU, BPKN, or Komdigi, tasked with monitoring interface ethics and regulatory compliance; and 3) Technical Implementation: Develop a national code of ethics for digital interface design and expand access to digital consumer redress through integrated, user-friendly Online Dispute Resolution mechanisms. Together, these strategies embody the ethos of progressive law as envisioned by Satjipto Rahardjo, which is law that sides with the people, evolves with the times, and acts as a meaningful instrument for achieving substantive justice in the digital economy.

Conclusion

This study reveals that dark patterns in e-commerce present a systematic threat to consumer welfare, which current Indonesian regulations fail to address explicitly. Although laws such as the Consumer Protection Law, the amended EIT Law, the Personal Data Protection Law, and the Government Regulation on Electronic Commerce exist, they remain general in scope and lack clear prohibitions against manipulative interface design. In contrast, South Korea and the European Union have adopted more advanced regulatory approaches, including explicit legal definitions, active enforcement bodies like KFTC and the European Commission, and detailed technical guidelines. Through the lens of Gustav Radbruch's legal theory, this disparity reflects Indonesia's shortfall in achieving justice, legal certainty, and social utility in digital consumer protection.

Building upon this analysis, the study proposes a progressive regulatory reform grounded in Satjipto Rahardjo's legal philosophy, emphasizing that law must adapt to societal developments and ensure substantive justice in the digital age. Accordingly, this research recommends: (1) drafting explicit legal provisions that define and prohibit dark patterns; (2) establishing a dedicated oversight unit with technical expertise under KPPU, BPKN, or Komdigi; and (3) developing national interface ethics guidelines and accessible Online Dispute Resolution mechanisms. The novelty of this study lies in integrating comparative legal analysis with interface-design ethics and progressive legal theory to produce a three-pillar reform model (substantive norms; institutional strengthening; technical guidelines) tailored for Indonesia. This integrated framework offers a new conceptual and policy contribution for shaping Indonesia's future digital consumer protection regime.

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The author declares that there are no competing interests related to the research, authorship, or publication of this article.