

OPINION

Jung, Soomin

Dark Pattern Regulation: Global Trends and Financial Sector Needs

Following the amendment to the Act on the Consumer Protection in Electronic Commerce (the “E-Commerce Act”), six types of dark patterns—hidden renewals, drip pricing, default options, misleading interface design, cancellation hindrance, and repetitive prompting—have been prohibited as of February 2025. Except for hidden renewals, these restrictions also apply to the financial service sector. However, as the E-Commerce Act is aimed at general e-commerce in goods distribution, it does not specifically address dark patterns that are particularly prevalent in financial product sales. The Financial Consumer Protect Act is primarily designed for face-to-face transactions, and thus has limitations in addressing dark patterns prevalent in mobile channels.

Notably, a range of dark patterns have been identified in mobile financial service interface. These include complex product descriptions hindering informed decision-making, excessive collection of personal information, and cumbersome processes for product cancellation or modification. In particular, brokerage applications designed for stock trading often employ various elements, such as monetary rewards, visual stimuli, and a leaderboard of top-traded stocks, to promote frequent trading, which may erode investor returns.

In response, the Financial Services Commission in South Korea is currently developing a regulatory guideline to curb the use of dark patterns in digital financial services. A tailored consumer protection framework that reflects the specific features of digital environments should be established. At the same time, financial institutions should proactively implement voluntary reforms.

* All opinions expressed in this paper represent the author’s personal views and thus should not be interpreted as Korea Capital Market Institute’s official position.

* Ph.D., Research Fellow, Financial Services Industry Department, Tel: 82-2-3771-0673, E-mail: soominjung@kcmi.re.kr

In everyday life, individuals make decisions based on the information and options available to them, a behavioral constraint commonly referred to as bounded rationality. Since gathering all relevant information and evaluating every possible option entail significant time and cost, individuals tend to make decisions that are optimal within given constraints. Traditionally, bounded rationality has been recognized as an underlying idea that promotes positive behavior through so-called nudges. However, in digital environments, firms increasingly take advantage of consumers' bounded rationality to steer decisions in ways that increase their profits – a practice commonly known as dark patterns. Dark patterns refer to deliberate tactics in designing and operating digital interfaces, used by e-commerce and online service providers, to induce consumer confusion or inattention, thereby prompting unnecessary or unintended spending.¹⁾ These practices are especially prevalent in mobile environments, where limited screen space and reduced navigability constrain consumers' ability to access and evaluate information, making it easier for firms to steer consumer decisions in their favor. In the financial services sector, the transition from face-to-face interaction to digital channels and from desktop to mobile platforms has further amplified the risks associated with dark patterns, particularly in the sales of financial products.

Prohibition of dark patterns under the Act on the Consumer Protection in Electronic Commerce

In response to the increasing incidence of consumer harm caused by dark patterns in online commerce, the Korea Fair Trade Commission (KFTC) introduced voluntary guidelines for managing online dark patterns in July 2023. Subsequently, the Act on the Consumer Protection in Electronic Commerce (the "E-Commerce Act") was amended in 2024, followed by revisions to its Enforcement Decree and Enforcement Rules in 2025. As a result, six dark pattern practices were formally prohibited as of February 14, 2025. The newly banned practices include: (1) hidden renewals, such as increasing subscription fees or switching free services to paid models without prior notice; (2) drip pricing, which involves initially displaying only partial prices while concealing mandatory fees; (3) default options, where specific options are automatically chosen without user consent; (4) misleading interface design, including highlighting visual elements like color or size to steer users toward preferred options; (5) cancellation hindrance,

1) Korea Fair Trade Commission, February 2025, Q&A on the regulation of six types of online dark patterns.

wherein account termination processes are made unnecessarily complex; and (6) repetitive prompting, involving the use of repeated pop-ups to pressure users into revising prior choices. Violations of the amended E-Commerce Act may result in corrective orders and administrative fines.

Table. Types of dark patterns prohibited under the E-Commerce Act

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| <ul style="list-style-type: none">① (Hidden renewals) Increasing subscription fees or converting free services to paid ones without prior consumer consent② (Drip pricing) Advertising or displaying only a portion of the total purchase price without legitimate reason③ (Default options) Presenting additional product options, as preselected during the purchase process of a primary product④ (Misleading interface design) Using size, shape, or color to draw undue attention to specific options that benefit the service provider⑤ (Cancellation hindrance) Employing design features that hinder consumers from canceling or withdrawing from services⑥ (Repetitive prompting) Using repeated prompts, such as pop-ups, that attempt to reverse or alter consumer choices |
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Source: KFTC

Dark patterns in the sale of financial products

Under the amended E-Commerce Act, five types of dark patterns, excluding hidden renewals, are now prohibited in the online sale of financial products.²⁾ However, given that the E-Commerce Act applies to a broad scope of electronic commerce covering general goods distribution, it has limitations in regulating dark patterns particularly prevalent in financial transactions. In contrast, regulatory authorities in other jurisdictions have adopted more targeted approaches to identifying and classifying dark patterns that are specifically problematic in financial product distribution. In Canada, the Ontario Securities Commission (OSC) has examined deceptive design practices in trading applications. The OSC has highlighted dark patterns such as intermediate currency displays,³⁾ ranking systems that steer users toward specific investment options, and interfaces designed to encourage recurring investment or

2) Article 3 of the Act on the Consumer Protection in Electronic Commerce excludes certain provisions from applying to securities transactions conducted by investment dealers and brokers, and to financial product transactions conducted by financial institutions designated by Presidential Decree. Article 13, which includes hidden renewals in Paragraph 6, is among those excluded.

3) Refers to practices that hinder consumers' ability to assess actual value by displaying fees or transaction amounts in foreign currencies or cryptocurrency units.

investment in crypto assets.⁴⁾ It also distinguishes between subtypes of harmful interface practices: dark nudges, which involve the use of default settings or processes that promote disadvantageous outcomes, and sludge, which refers to the use of overly complex language or interface barriers that impede optimal decision-making. In a similar effort, the Association of Banks in Singapore (ABS) has analyzed dark patterns in banking applications.⁵⁾ It has identified problematic practices including: the excessive use of banners and pop-ups prompting sign-ups or purchases; complicated processes and interface designs that obstruct subscription cancellation, membership termination, or product comparisons; and the unnecessary collection of personal information, including email addresses and social media accounts, as a condition for accessing certain app functions.

Dark patterns have become increasingly prevalent in Korea's digital financial services. For instance, in the marketing and distribution phase, credit card or new account opening promotions are often presented as if welcome rewards are granted automatically upon account opening. However, in reality, users must complete additional applications through a distinct web page to qualify for the reward. Another frequently employed tactic is the default selection of specific options. When opening an Individual Savings Account (ISA), for example, users are frequently led-by default settings-to also apply for additional accounts, such as Cash Management Accounts (CMAs) or Individual Retirement Pension (IRP) accounts, often without a clear explanation that it is optional. Recently, a growing number of misleading dark patterns have been observed that entice users into consenting to MyData services by using curiosity-provoking phrases.

In the post-purchase phase, users frequently encounter obstacles when attempting to close accounts, change transfer limits, or adjust contribution amounts via mobile applications, as these features are often buried behind submenus or entirely inaccessible through mobile interfaces. In some cases, financial institutions are obligated to provide one-on-one consultation due to the significance of such changes. However, if the procedures for initiating these actions are not clearly disclosed or are functionally unavailable through mobile channels, such practices may constitute "cancellation hindrance" which is prohibited under the amended E-Commerce Act. Furthermore, the poor legibility of consent forms and explanatory documents presents

4) OSC, February 23, 2024, *Digital Engagement Practices: Dark Patterns in Retail Investing*.

5) ABS, April 2023, *ABS Industry Information Paper on Dark Patterns*.

an additional concern. Consent buttons are often displayed before users are given access to the relevant terms, allowing them to proceed to the next step without reviewing material information.

While brokerage applications increasingly adopt features designed to enhance user experience, certain design elements may compromise consumer welfare. For example, some apps allow users to place orders by bypassing key safeguards, such as password entry or order confirmation, enabling orders to be executed immediately with a single touch. Unlike retail purchases on e-commerce platforms, which often allow for cancellation or return, stock trades are often executed instantly and impossible to revoke, and thus mistakenly placed orders may result in irreversible financial losses. Additionally, many trading apps employ gamification techniques, such as offering rewards or using dynamic visual elements to encourage trading, which may erode investment returns. A study by the OSC found that participants who received even negligible rewards for trading exhibited a 39% increase in transaction relative to a control group without any rewards. While frequent transaction may generate higher fee income for brokerage platforms, it raises trading costs for investors, thereby lowering their overall returns.

In most domestic trading apps, individual stocks are displayed in a leaderboard format, ranked by metrics such as rate of return, trading volume, and sharp price movements (both upward and downward). Such rankings may steer investors toward highly volatile lottery-type stocks or fuel herding behavior and short-term speculative investment. Stein (2020) finds that Robinhood users are five to seven times more likely to trade a stock newly added to the Robinhood Investor Index, which tracks the top 100 most-owned stocks on the platform.⁶⁾ Similarly, the OSC observed that users exposed to top-traded lists were 14% more likely to trade those stocks than users in a control group, representing a typical case of herding behavior.⁷⁾ Kim & Kim (2022) also confirm that retail investors engaging in lottery stock trading and short-term herding tend to experience lower investment returns over time.⁸⁾

6) Stein, R., 2020, The top 5 predictable effects of new entries in Robinhood's '100 most popular' list, working paper.

7) OSC, November 17, 2022, *Digital Engagement Practices in Retail Investing: Gamification and Other Behavioural Techniques*.

8) Kim, M.K. & Kim, J.S., 2022, Behavioral biases and trading patterns of Korean retail investors, Korea Capital Market Institute Research Papers 22-02.

Global regulatory approaches to dark patterns

Competition authorities in major economies have increasingly formulated policies to ban the use of dark patterns on digital platforms. In the EU, Article 25 of the Digital Services Act (DSA) prohibits the deployment of dark patterns that distort user decision-making or obstruct cancellation processes. The EU also plans to introduce the Digital Fairness Act, which aims to further strengthen restrictions on dark patterns. In the US, dark patterns in online services are regulated under the Restore Online Shoppers' Confidence Act (ROSCA). In addition, the recently passed "Click-to-Cancel" rule, scheduled to take effect in July 2025, mandates that consumers be able to cancel subscriptions or memberships as easily as they sign up for them. The Deceptive Experiences To Online Users Reduction (DETOUR) Act has also been proposed to regulate a broader range of dark patterns.

Financial authorities in major jurisdictions have also intensified enforcement efforts against dark patterns in financial services. In May 2024, the US Consumer Financial Protection Bureau (CFPB) filed a lawsuit against a fintech peer-to-peer (P2P) service provider for using dark patterns that deceptively induced users to leave tips or make donations. In the UK, the Financial Conduct Authority (FCA) warned in 2022 that gamification features in stock trading apps could undermine consumer interests. The FCA cited examples such as fireworks graphics displayed upon trade execution, investor ranking tables, frequent market alerts, and default displays of leveraged returns, as elements potentially encouraging gambling-like behavior. Similarly, Germany's Federal Financial Supervisory Authority (BaFin) issued a warning that certain dark patterns used in stock trading apps, such as visually emphasizing the "Trade" button while obscuring the "Cancel" button, could breach the German Securities Trading Act and the EU's MiFID Conduct of Business rules.

Regulatory guidelines for dark patterns in the financial sector

In Korea, the Financial Services Commission (FSC) is currently developing regulatory guidelines aimed at curbing the use of dark patterns. The sale of financial products is primarily governed by the Financial Consumer Protect Act, the Guidelines for Reasonable Implementation of the Duty to Explain Financial Products, and the Online Explanation Guidelines. However, the Financial Consumer Protect Act largely regulates sales activities

conducted through in-person channels. As a result, the applicability of the Act to online financial transactions remains ambiguous, and compliance is often difficult to assess in practice.⁹⁾ The Online Explanation Guidelines outline three overarching principles, including interface design for financial products, support for consumer understanding, and confirmation of user comprehension. However, these principles have limited effectiveness in addressing the dynamic and evolving nature of dark patterns in mobile environments.

Dark patterns occupy a regulatory gray area between marketing efforts and consumer deception, highlighting the importance of clear guidelines. A notable example involved saving account comparison services that prominently displayed preferential interest rates for deposit and savings products, misleading consumers into believing they would receive the highest advertised rate. The base rates that actually applied to the majority of users were downplayed. This practice has been addressed since the FSC issued compliance guidelines for advertising deposit products, requiring the comparison services to accurately display base rates. As regulators finalize new regulatory guidelines, it is critical that the guidelines both enhance consumer convenience and minimize consumer harm. Financial institutions, for their part, should critically reassess the role of dark patterns in their marketing strategies. Given that financial products are consumed repeatedly over a lifetime, firms should prioritize long-term trust and value over short-term gains by offering reliable services that truly support consumer needs.

9) Lee, J.M., November 2024, Review of dark patterns for credit card consumer protection in the digital financial ecosystem.