

Dark Patterns through a Consumer Ethics Lens: Perceived Unethicality, Platform Trust Erosion, and Behavioural Intentions in Digital Markets

Finu Jasmin E.N.¹, Dr. Shabeer VP²

¹Research Scholar, PSMO College (Autonomous), Tirurangadi

²Assistant Professor, PSMO College (Autonomous), Tirurangadi

DOI: <https://doi.org/10.51583/IJLTEMAS.2026.150700086>

Received: 27 July 2026; Accepted: 01 August 2026; Published: 13 August 2026

ABSTRACT

Dark patterns are strategies deliberately designed on digital platforms to exploit consumer cognitive limitations and information asymmetry, and are now documented across the majority of major digital platforms globally. However, how consumers morally evaluate these practices and how these evaluations shape trust and behaviour is theoretically underdeveloped. This paper aims to bridge the disciplinary gap between the dark patterns literature, which has concentrated on design classification and prevalence auditing, and the marketing ethics literature, which has not operationalized its well established consumer ethical perception framework to dark patterns. This paper draws from the legacy of unethical marketing, ethics position theory, the persuasion knowledge model and consumer trust theory to propose the Dark Pattern Consumer Ethics Framework (DPCEF) - an integrated theoretical model linking dark pattern perception to consumer trust erosion and behavioural outcomes. The framework proposes Perceived Dark Pattern Unethicality (PDPU) as the formally defined consumer side moral evaluation construct specific to dark patterns, theorises a two stage recognition-evaluation process in which digital literacy moderates the idealism PDPU relationship, and advances consumer platform trust as the mediating mechanism for behavioural outcomes such as negative behavioural intentions and regulatory support response. Finally, seven testable propositions based on theory are proposed. The framework makes a theoretical contribution to consumer ethics by formally integrating two literatures that have evolved in disciplinary isolation, expands the Persuasion Knowledge Model to contexts of digital dark patterns, and introduces regulatory support intention as a new behavioural outcome of perceived marketing unethicality with direct implications for digital consumer protection policy in emerging markets.

Keywords: Dark patterns; Perceived Dark Pattern Unethicality (PDPU); Consumer platform trust; Ethics Position Theory; Digital literacy

INTRODUCTION

Digital interfaces are increasingly shaping the way that consumers search, evaluate and purchase products and services. Some interface designs, while improving usability, are designed to exploit cognitive biases to influence consumer decisions. These manipulative practices, commonly known as dark patterns, have become an important issue for researchers, regulators, and consumer protection agencies since they undermine consumer's ability to make autonomous and informed choices. Mathur et al. (2019) found dark patterns on more than 11,000 online shopping sites, whereas the Advertising Standards Council of India (ASCI, 2024) detected dark pattern practices in 52 out of 53 leading digital applications in India. The Organisation for Economic Co-operation and Development (OECD, 2022) has identified dark patterns as among the most significant emerging threats to consumer welfare in digital markets, prompting regulatory responses across the European Union, the United States, and India.

Despite this documented prevalence and increasing regulatory attention, our understanding of how consumers mentally and morally assess dark patterns is still quite limited. Existing research primarily focuses on dark patterns from the viewpoints of interface design and computer science. It classifies their types (Gray et al., 2018),

audits their frequency (Mathur et al., 2019), and looks at their effects on behaviour, such as unintended clicks and purchasing choices (Luguri and Strahilevitz, 2021). While these studies are valuable, they overlook an essential theoretical aspect: how do consumers view dark patterns as ethical violations, and what impact do these moral assessments have on consumer trust and behaviour?

There are two reasons why this gap is important. First, the marketing ethics literature has shown that consumer ethical perception- the subjective moral assessment that a marketing practice is inappropriate, unfair, or dishonest- is a significant predictor of consumer trust and subsequent behavioural outcomes (Leonidou et al., 2013; Vitell and Muncy, 2005). The implications for platform trust and customer behaviour go much beyond the immediate transactional manipulation that dark patterns are intended to accomplish if they cause this type of ethical perception. Second, individual differences in moral philosophy particularly idealism, and the digital literacy have been shown to shape how strongly consumers evaluate marketing practices as ethical violations (Forsyth, 1980; Gazafroudi et al., 2018; van Deursen and van Dijk, 2011), yet neither construct has been examined in the dark patterns literature.

A larger disciplinary divide is reflected in these discrepancies. The dark patterns literature and the marketing ethics literature address a fundamentally similar phenomenon - consumer exposure to deliberate marketing deception from different disciplinary angles, without formal theoretical integration. The dark patterns literature has the phenomenon and the classification but lacks the consumer ethics framework. The marketing ethics literature has the framework but has not applied it to dark patterns. These two literatures are running in parallel without connecting, and the cost of that disconnection is an incomplete theoretical understanding of how consumers perceive, respond to, and are harmed by dark patterns in digital markets.

This paper addresses that gap by proposing the Dark Pattern Consumer Ethics Framework (DPCEF) - an integrated theoretical framework connecting the dark patterns and marketing ethics literatures. Drawing on the perceived unethical marketing tradition (Leonidou et al., 2013; Vitell and Muncy, 2005; Tsalikis and Fritzsche, 1989), Ethics Position Theory (Forsyth, 1980), digital literacy scholarship (van Deursen and van Dijk, 2011), and consumer trust theory (Morgan and Hunt, 1994), the DPCEF proposes a comprehensive model explaining how idealism shape consumer moral evaluation of dark patterns, how those evaluations erode platform trust, and how trust erosion drives platform avoidance, negative electronic word of mouth, and regulatory support intention. Eight theoretically derived propositions are presented, each directly testable through empirical research and collectively constituting a research agenda for marketing scholars entering this rapidly evolving domain.

The proposed framework contributes to the literature in several ways. It conceptualises PDPU as a consumer side ethical evaluation of manipulative interface design, explains how idealism and digital literacy jointly shape ethical judgments, identifies platform trust as the mechanism linking ethical evaluations with behavioural responses, and incorporates regulatory support intention as an additional consequence of perceived unethicality.

LITERATURE REVIEW AND THEORETICAL FOUNDATIONS

Dark Patterns as an Emerging Consumer Ethics Issue

The term "dark patterns" was first used by Brignull (2010) to characterize interface methods that encourage users to make decisions that primarily benefit the platform at the expense of making thoughtful, independent decisions. What began as a criticism of the user experience has subsequently expanded to include public policy, digital marketing, consumer protection, and company ethics. Since then, researchers have compiled a comprehensive taxonomy of these strategies, including forced continuity, disguised advertising, confirmshaming, fake urgency, and hidden costs, and discovered that they are present in a vast array of online services (Gray et al., 2018; Mathur et al., 2019). Regulators have also taken note, as evidenced by papers released by the OECD and India's Advertising Standards Council that demonstrate the continued pervasiveness of manipulative design.

The majority of the research on the subject has followed three paths. One strand uses large-scale website and app crawling to audit the frequency of dark patterns. Another conducts tests to determine how these interfaces truly affect behaviour. When manipulative design is present, purchasing decisions, privacy settings, and

subscription choices all change quantifiably. A more recent line of inquiry has begun to examine how customers view these techniques, focusing on concepts like perceived manipulation, fairness, and trust following an interaction with a misleading interface. We have learned a lot about how dark patterns work and how they affect behaviour as a result of our work. It hasn't posed an ethical query, though. Although it is clear that honesty, transparency, and customer welfare are linked to dark patterns, the field has largely focused on behaviour and cognition rather than how consumers evaluate these practices morally and how that assessment affects trust and subsequent behaviour. This is the starting point for consumer ethics theory, which enables us to look beyond the behavioural narrative and consider what dark patterns mean to those who encounter them.

Consumer Ethics and Perceived Unethical Marketing

Marketing ethics research has long recognized that consumers evaluate the morality of company's actions in addition to responding to marketing results. According to the research on perceived unethical marketing (PUM) customers make subjective decisions about whether marketing methods are dishonest, unfair, or improper. These assessments then influence relationship quality, loyalty, trust, and complaint behavior (Tsalikis & Fritzsche, 1989; Vitell & Muncy, 2005; Leonidou et al., 2013). This point of view stresses that individual ethical assessments impact customer behavior rather than being only determined by regulatory constraints.

Ethics Position Theory (Forsyth, 1980) is one of the most important reasons for differences in moral judgment. This idea suggests that different people evaluate organizational behaviour using different ethical standards. Among its aspects, idealism has continuously been linked to a greater awareness of behaviours that could endanger customers or transgress fairness standards. Idealistic people tend to see dishonest marketing tactics more adversely since they generally think that moral choices should refrain from harming other people. Studies across different marketing contexts have shown that idealism is positively associated with perceptions of unethical marketing and stronger ethical concern (Singhapakdi et al., 1995; Gazafroudi et al., 2018). These findings suggest that consumers who place greater emphasis on avoiding harm are also more likely to perceive manipulative digital interfaces as ethically unacceptable.

Why Idealism Rather than Relativism?

Idealism and relativism are the two main ethical philosophies put forth by Ethics Position Theory (Forsyth, 1980). The current framework mostly concentrates on idealism for theoretical reasons, despite the fact that both have been extensively studied in marketing ethics research.

In essence, dark patterns are intended to command consumer choices by taking advantage of cognitive constraints or information asymmetry. Therefore, rather than whether ethical standards should change depending on the circumstances, consumer evaluation is likely to be based on the perceived harm produced by these actions.

Idealism directly reflects concern for preventing harm and protecting consumer welfare, making it conceptually consistent with the ethical issues raised by manipulative interface design. Relativism, in contrast, reflects the belief that ethical decisions depend on situational or cultural circumstances rather than universal principles. While relativism may influence ethical judgments in broader marketing contexts, previous research generally reports that idealism shows a stronger and more consistent relationship with evaluations of deceptive marketing practices. For this reason, the present framework emphasises idealism as the principal ethical antecedent of PDPU while recognising that future empirical studies may compare both ethical orientations.

Digital Literacy and Ethical Evaluation of Dark Patterns

Digital literacy refers to an individual's ability to access, understand, evaluate, and effectively navigate digital environments (van Deursen & van Dijk, 2011). Beyond technical competence, it includes recognising persuasive strategies, interpreting digital information critically, and identifying potentially deceptive interface designs.

The Persuasion Knowledge Model (Friestad & Wright, 1994) proposes that consumers need to first identify an influence attempt before they evaluate or resist it. This principle is especially important for dark patterns since many manipulative interface designs are intentionally obscured persuasive intent. Whatever their moral values,

if they don't consider practices like this, then it won't be considered an ethical violation. This reasoning underpins the treatment of digital literacy as a moderator rather than an antecedent or mediator. Digital literacy does not directly influence consumer's perception of dark patterns as unethical; rather, it improves consumer's capacity to recognize manipulative design features, enabling them to apply their own personal ethical values to guide subsequent moral evaluation.

This specification is also consistent with recent studies that greater awareness of dark patterns improves consumer's ability to recognise deceptive interface designs and reduces susceptibility to manipulative practices (Oyibo, 2023; Bongard-Blanchy et al., 2021). So, digital literacy acts as a boundary condition that determines the extent to which ethical beliefs are transformed into ethical evaluations.

Perceived Dark Pattern Unethicality and Related Constructs

To establish conceptual clarity, it is important to distinguish Perceived Dark Pattern Unethicality (PDPU) from several related constructs commonly used in digital consumer research.

Perceived manipulation refers to consumer's beliefs that a firm is attempting to influence their decisions in an inappropriate or self-serving manner (Campbell, 1995). Although manipulation may trigger ethical concerns, the construct primarily captures perceptions of persuasive intent rather than an explicit moral evaluation of the firm's behaviour.

"Perceived fairness is concerned with whether the consumer views the actions of an organisation as equitable, reasonable or procedurally just" (Xia et al., 2004). Fairness judgments are often related to pricing, transactions or service recovery and do not necessarily involve wider ethical judgments about deceptive interface design. Consumer skepticism is a relatively stable tendency to question or distrust marketing claims. Skepticism is a general attitude, not an evaluation of a specific platform or practice, and thus, differs from PDPU.

PDPU is distinct from each of these constructs because it captures the consumer's moral judgment that a digital platform has intentionally designed its interface to exploit cognitive limitations or information asymmetry in ways that undermine informed and autonomous decision making. Thus, PDPU represents a context specific ethical evaluation rather than a perception of influence, fairness, or generalized distrust.

The Dark Pattern Consumer Ethics Framework (Dpcef)

This section develops the Dark Pattern Consumer Ethics Framework (DPCEF) that explains how consumers form ethical evaluations of dark patterns and how these evaluations influence trust and following behavioural responses. The framework, drawing from the perceived unethical marketing literature, Ethics Position Theory, the Persuasion Knowledge Model, and consumer trust theory, postulates that ethical orientation and digital literacy together shape consumer's perceptions of manipulative interface designs. These ethical evaluations subsequently affect platform trust, which leads to behavioural intentions such as platform avoidance, negative electronic word of mouth (eWOM), and support for regulatory intervention. Table 1 presents the research propositions and the proposed conceptual framework is presented in Figure 1.

Perceived Dark Pattern Unethicality (PDPU)

Perceived Dark Pattern Unethicality (PDPU) is the framework's main concept. It represents consumer's moral evaluation of manipulative digital interface designs rather than their behavioural reaction or legal assessment. . PDPU is described as follows, drawing on the literature on perceived unethical marketing and current dark pattern research: A consumer's subjective moral judgment that a digital platform has intentionally designed its interface or communication environment to exploit cognitive limitations or information asymmetry, thereby reducing the consumer's ability to make autonomous and informed decisions.

This definition integrates two complementary perspectives. From marketing ethics, it adopts the principle that consumers respond to their own ethical perceptions rather than objective legal standards. From the dark patterns literature, it integrate the defining characteristics of intentional design, cognitive exploitation, and reduced

consumer autonomy. Together, these perspectives position PDPU as the ethical evaluation through which consumers interpret manipulative digital practices.

PDPU is conceptualised as a higher order reflective construct including multiple manifestations of unethical interface design, including false urgency, drip pricing, disguised advertising, forced continuity, and confirmshaming. Although these practices differ operationally, they share the common characteristic of intentionally influencing consumer decisions through deceptive design. Therefore, they collectively reflect an underlying perception that the platform has acted unethically.

Antecedents of PDPU

- **Idealism and Ethical Evaluation**

Idealistic consumers place greater weight on avoiding harm to others, and dark patterns intentionally exploit consumer vulnerabilities for commercial advantage - a direct conflict with idealistic reasoning that should intensify moral condemnation of the practice regardless of any resulting economic loss.

Proposition 1 (P1): Idealism is positively associated with Perceived Dark Pattern Unethicality (PDPU). Consumers with stronger idealistic ethical orientations are more likely to evaluate dark patterns as unethical.

- **Digital Literacy as a Moderating Capability**

Digital literacy functions as a recognition gateway rather than an independent source of moral judgment: the Persuasion Knowledge Model holds that consumers activate ethical evaluation only after identifying persuasive intent, so consumers who cannot recognise a dark pattern as manipulative have no basis for evaluating it as unethical, regardless of their underlying ethical orientation.

Digital literacy is therefore treated as a moderator rather than an antecedent or mediator: ethical orientation supplies the normative standard, while digital literacy determines whether consumers recognise the situations in which that standard becomes relevant, strengthening rather than substituting for the idealism–PDPU relationship.

Proposition 2 (P2): Digital literacy positively moderates the relationship between idealism and PDPU such that the relationship is stronger among consumers with higher levels of digital literacy.

- **PDPU and Consumer Platform Trust**

Trust is one of the most commonly researched outcomes of alleged unethical marketing. According to relationship marketing theory, when organizations are perceived to act honestly, fairly, and in the best interests of their customers, consumers develop trust in them. Unethical organizational behaviour, on the other hand, weakens these beliefs and erodes long term relationships.

Beyond technical proficiency, trust in digital platforms includes the assurance that the platforms would not intentionally deceive consumers through misleading interface design. Customers are less likely to rely on the platform in future interactions if they perceive that dark patterns indicate deliberate ethical violations. As a result, PDPU is likely to lower customer platform trust.

Proposition 3 (P3): Perceived Dark Pattern Unethicality is negatively associated with consumer platform trust.

Platform Trust as the Mediating Mechanism

The framework also suggests that the main way that ethical assessments affect behavioral reactions is through trust. Perceptions of unethical behavior first erode trust, which in turn spurs behavioral change rather than directly triggering avoidance or negative communication.

This mediating role is consistent with relationship marketing research, which consistently identifies trust as a key mechanism linking organizational behavior with consumer outcomes. Recent studies specific to dark

patterns directly support the pathway: Witte et al. (2022) find that exposure to dark patterns in online retail settings weakens purchase intention by reducing consumer trust, and Kim et al. (2023) demonstrate that perceived fairness functions as a comparably proximal mechanism linking design perception to downstream attitudes after exposure to dark patterns.

According to earlier research, integrity-based trust-confidence in a partner's honesty and adherence to established principles is the trust dimension most severely harmed by a single infraction and the slowest to recover (Kim et al., 2004). This is consistent with the largely one-way, damage focused pathway suggested in P3 and P4.

Proposition 4 (P4): Consumer platform trust mediates the relationship between PDPU and consumer behavioural intentions.

- **Digital Vulnerability as a Boundary Condition**

Consumer vulnerability research defines vulnerability as a state in which individuals face a heightened risk of marketplace harm because of characteristics that limit their ability to evaluate, negotiate, or exit unfavourable exchanges, including situational factors such as limited experience, restricted access to alternatives, or dependence on a given provider (Baker et al., 2005). Such characteristics can be situational, such as limited experience, restricted access to alternatives or dependence on a given provider. Even when consumers recognise manipulative design, they are structurally less able to exit or resist such design if they have less experience with digital, fewer technological alternatives or more dependence on a given platform in digital markets.

Recent empirical study on dark patterns supports this reasoning: Zac et al. (2023) find that the harm caused by manipulative interface design is not evenly distributed across consumers but concentrates among those already vulnerable due to limited digital experience, financial constraint, or restricted platform choice, such that vulnerability amplifies rather than substitutes for the harm caused by manipulative design. Digital vulnerability consequently operates as a boundary condition within the DPCEF. Consumers who are more technologically vulnerable are likely to face greater trust loss for a given level of perceived unethicality, because manipulative techniques endanger both their immediate autonomy and their broader potential to participate in digital markets on equal terms.

Proposition 5 (P5): Digital vulnerability strengthens the negative relationship between PDPU and consumer platform trust.

- **Behavioural Outcomes of Platform Trust**

Reduced platform trust is expected to influence two related behavioural responses: a composite negative behavioural intentions response, and a distinct regulatory support response.

- **Negative Behavioural Intentions**

Consumers who lose trust in a digital platform respond behaviourally along a continuum ranging from continued loyalty to active defection (Zeithaml, Berry, & Parasuraman, 1996). At the negative end of this continuum, two closely related responses occur together:

Consumers that lose faith in a digital platform exhibit behavioural changes ranging from sustained loyalty to active desertion (Zeithaml, Berry, & Parasuraman, 1996). Consumers reduce or discontinue platform use and seek alternatives at the negative end of this continuum (the "switch" dimension), and they communicate their dissatisfaction to others through online reviews, social media, and interpersonal communication (the negative pole of the "word of mouth" dimension). Because both responses reflect the same underlying defection response to declining trust rather than theoretically distinct behavioural mechanisms, they are treated as a single higher order construct, negative behavioural intentions - in accordance with Zeithaml et al.'s (1996) Behavioural Intentions Battery (BIB), which is widely used in service quality and marketing research.

Proposition 6 (P6): Consumer platform trust is negatively associated with negative behavioural intentions (encompassing platform avoidance and negative electronic word of mouth).

➤ Regulatory Support Intention

Customers may prefer more robust institutional intervention against deceptive platform activities in addition to individual behavioral reactions. This pattern is supported by survey data from sources other than the literature on dark patterns: According to Turow et al. (2009), the vast majority of American consumers who believed that marketing practices went against their expectations of fair treatment preferred regulatory restriction of those practices over individual avoidance alone. Similarly, consumer-rights scholarship views regulatory appeal as a valid response when market mechanisms are insufficient to protect consumer welfare (Goodwin, 1980). Therefore, a decline in confidence may boost support for more stringent regulations, complaint procedures, and consumer protection laws as those recently implemented in the European Union (European Commission, 2022) and India (Consumer Protection E-Commerce Rules, 2020).

Unlike avoidance and eWOM, regulatory support reflects a collective response aimed at improving the broader digital marketplace rather than addressing an individual transaction, and is therefore expected to depend more heavily on the perceived systemic scale of the unethical conduct than on isolated personal dissatisfaction.

Proposition 7 (P7): Consumer platform trust is negatively associated with regulatory support intention.

Summary of the Framework

The DPCEF proposes that consumer's ethical orientation influences perceptions of dark pattern unethicity, while digital literacy strengthens this relationship by boosting awareness of manipulative interface designs. Ethical evaluations reduce consumer platform trust, which subsequently explains negative behavioural intentions encompassing platform avoidance and negative electronic word of mouth and support for regulatory intervention. Digital vulnerability further strengthens the negative influence of PDPU on trust among consumers who are more sensitive to digital manipulations.

Table 1. Summary of Research Propositions

Proposition	Relationship	Expected Direction
P1	Idealism → Perceived Dark Pattern Unethicality (PDPU)	Positive (+)
P2	Digital Literacy moderates the relationship between Idealism and PDPU	Positive Moderation
P3	PDPU → Consumer Platform Trust	Negative (−)
P4	Consumer Platform Trust mediates the relationship between PDPU and Behavioural Intentions	Mediation
P5	Digital Vulnerability moderates the relationship between PDPU and Consumer Platform Trust	Negative Moderation
P6	Consumer Platform Trust → Negative Behavioural Intentions (avoidance + negative eWOM)	Negative (−)
P7	Consumer Platform Trust → Regulatory Support Intention	Negative (−)

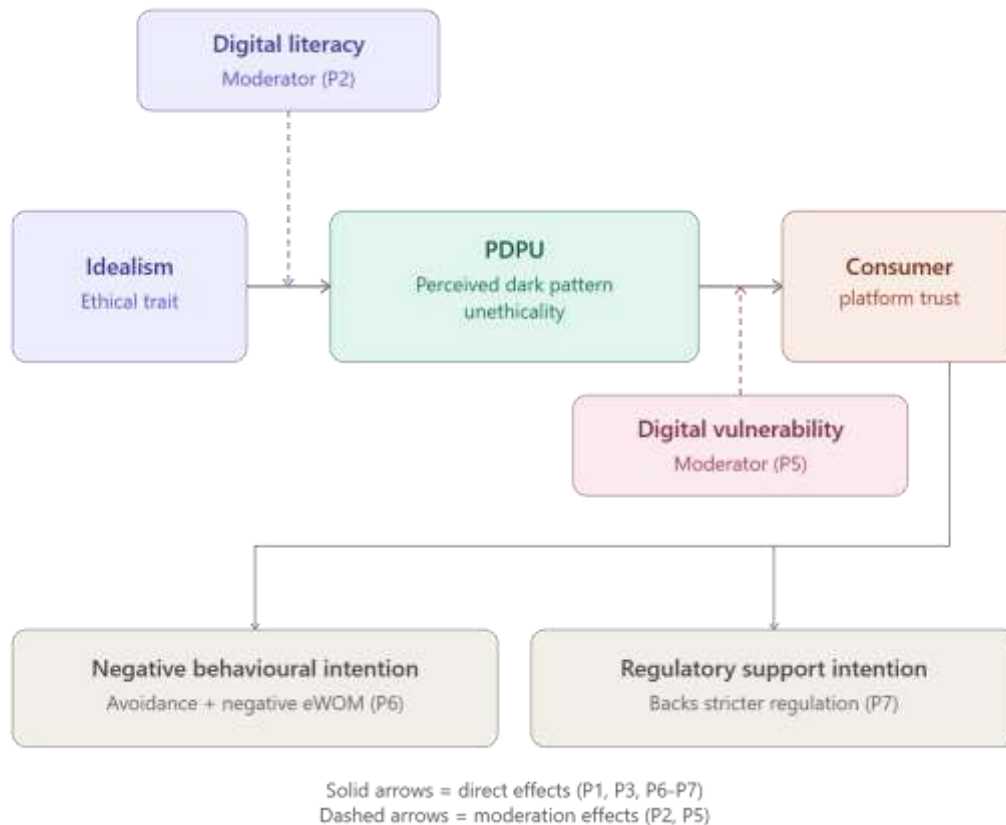


Figure 1. Proposed Dark Pattern Consumer Ethics Framework (DPCEF).

The framework proposes that idealism positively influences Perceived Dark Pattern Unethicity (PDPU), with digital literacy strengthening this relationship. PDPU reduces consumer platform trust, which subsequently influences negative behavioural intentions (encompassing platform avoidance and negative electronic word of mouth) and regulatory support intention. Digital vulnerability moderates the relationship between PDPU and platform trust.

Theoretical And Practical Contributions

➤ Theoretical Contributions

The Dark Pattern Consumer Ethics Framework (DPCEF) contributes to the literature by integrating perspectives from marketing ethics, digital consumer behaviour, and dark pattern research. It offers four theoretical contributions.

The framework first incorporates the literature on marketing ethics and dark patterns. Research on dark patterns has substantially improved understanding of manipulative interface designs, it has primarily focused on their classification, prevalence, and behavioural effects. In contrast, marketing ethics research has developed well established explanations of how consumers evaluate unethical marketing practices and how these evaluations influence trust and behavioural responses (Leonidou et al., 2013; Vitell & Muncy, 2005; Tsalikis & Fritzsche, 1989). The classification, prevalence, and behavioral impacts of dark patterns have been the main topics of research, which has significantly increased our understanding of manipulative interface designs. On the other hand, well established explanations of how consumers assess unethical marketing tactics and how these assessments affect behaviour and trust have been created by marketing ethics research (Leonidou et al., 2013; Vitell & Muncy, 2005; Tsalikis & Fritzsche, 1989). By integrating these viewpoints, the DPCEF offers a cogent theoretical foundation for investigating consumers' ethical assessments of dark patterns and expands the perceived unethical marketing paradigm to digital platform contexts.

Second, the framework conceptualises Perceived Dark Pattern Unethicality (PDPU) as a context specific ethical evaluation of manipulative interface design. Rather than viewing dark patterns solely as usability or persuasion issues, the framework positions them within the broader consumer ethics literature by conceptualising consumer's moral evaluations of deceptive interface practices. It also offers a foundation for subsequent scale development and empirical validation.

Third, the framework describes how consumer's ethical assessments of dark patterns are influenced by both digital literacy and ethical orientation. Based on the Persuasion Knowledge Model and Ethics Position Theory, the framework suggests that consumer's moral assessment of manipulative interface designs is influenced by idealism, and that this relationship is strengthened by digital literacy, which enables customers to identify misleading design elements.

Fourth, the framework broadens the behavioural consequences associated with perceived unethical marketing by incorporating regulatory support intention. Previous studies have primarily examined outcomes such as switching behaviour, loyalty, complaint behaviour, and negative word of mouth (Leonidou et al., 2013; Chaudhuri & Holbrook, 2001). Extending this stream of research, the DPCEF proposes that consumer's ethical evaluations may also encourage support for regulatory intervention against manipulative digital practices, thereby linking consumer ethics with the evolving digital consumer protection landscape.

➤ Practical Contributions

The DPCEF also offers practical implications for digital platform managers, consumer protection regulators, and digital literacy educators.

The approach emphasizes for digital platform management that, while dark patterns may provide short-term commercial benefits, they can also weaken consumer trust if they are identified as deceptive. Reduced trust is expected to lead to increased platform avoidance, unfavorable electronic word of mouth, and support for regulatory involvement, possibly harming long-term consumer relationships and organizational reputation. These findings highlight the strategic value of clear and consumer-oriented interface design.

By highlighting consumer's psychological reactions to deceptive interface design, the framework enhances current audit based methods for consumer protection authorities. To further quantify the impact of deceptive digital activities on consumers, regulatory assessments could include measures of perceived unethicality, platform trust, and behavioural intentions in addition to determining the frequency of dark patterns.

For digital literacy educators and policymakers, the framework emphasises the importance of improving consumer's ability to recognise manipulative interface designs. Since digital literacy strengthens the relationship between ethical values and perceptions of unethicality, educational initiatives that enhance awareness of common dark patterns may help consumers make more informed decisions and reduce vulnerability to deceptive digital practices. Accordingly, digital literacy programmes can complement regulatory interventions by strengthening consumer's capacity to identify and respond to manipulative digital environments.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The DPCEF improves theoretical understanding of dark pattern ethical perception but it has drawbacks that also establish a study agenda for the future.

Most importantly, the framework is theoretical, and none of the eight claims have been empirically proven. Before the framework can be confidently accepted, direct empirical testing using validated instruments on representative consumer samples is necessary. Some propositions carry stronger indirect support than others the trust mediation pathway (P4) draws on the most robust finding in the PUM literature, while regulatory support intention as a behavioural outcome (P7) is the most novel and therefore the most empirically uncertain.

Then, the higher order reflective specification of PDPU assumes sufficient intercorrelation among its five dark pattern dimensions to justify a single underlying moral evaluation construct. This assumption requires

confirmatory factor analysis to be validated, it is theoretically plausible that consumers evaluate different dark patterns using distinct evaluative procedures, implying a formative rather than reflective specification. Future measurement work should evaluate both standards before implementing either.

The framework addresses the consumer side only and does not account for firm level factors shaping dark pattern deployment- competitive pressures, platform architecture decisions, and regulatory compliance constraints. A complete theoretical account of the dark patterns phenomenon requires complementary organisational behaviour frameworks examining platform side motivations alongside consumer side responses.

These limitations generate a focused empirical research agenda. Using PLS-SEM with validated adaptations of established scales for idealism (Forsyth, 1980), digital literacy (van Deursen and van Dijk, 2011), platform trust (McKnight et al., 2002), and the recently proposed PDPU construct, empirical validation of the DPCEF's eight propositions in the Indian digital consumer context—where ASCI (2024) has documented near-universal dark pattern exposure and where there is currently no consumer psychology research. Additionally, the two-stage sequential process suggested in Propositions 1 through 3 could be cleanly isolated by experimental designs that manipulate dim pattern recognition settings. Cross-generational and cross-cultural expansions would examine if the framework's fundamental pathways are moderated across consumer groups and national settings by individualism-collectivism and generational disparities in digital literacy. Finally, development and psychometric validation of a standalone PDPU measurement scale- following Churchill's (1979) scale development protocol would provide the research community with a reusable instrument enabling cumulative evidence building across future empirical studies.

Measurement and Empirical Validation Strategy

Two complementary approaches to render the DPCEF a viable research agenda are (a) adaptation of existing scales to constructs already defined in the DPCEF and (b) development of a new instrument for PDPU.

Validated multi-item scales exist for idealism, digital proficiency, and platform trust and only need to be adapted to the context: Ethics Position Questionnaire (Forsyth, 1980) for idealism, Internet Skills Scale (van Deursen & van Dijk, 2011) for digital proficiency, and e-commerce trust typology (McKnight et al., 2002) for platform trust. There is no single scale of digital vulnerability, but the multidimensional vulnerability indicators developed by Baker et al. (2005) can be adapted to dependencies specific to the use of digital platforms, for example availability of alternative platforms, prior negative experience and reliance on a single service for an essential function.

Need development from ground up, no existing measure of PDPU itself. One appropriate protocol is the domain-sampling procedure of Churchill (1979) as refined by DeVellis (2016): item generation from the five dark pattern manifestations identified in Section 3.1, content validity through expert-panel review, exploratory factor analysis on a calibration sample, and confirmatory factor analysis with an independent validation sample to test the higher-order reflective specification proposed here versus the formative alternative noted as a limitation above.

Once measures are available, the structural model is well suited to partial least squares structural equation modelling (PLS-SEM), which accommodates the framework's combination of mediation (P4), moderation (P2, P5), and multiple downstream outcomes (P6–P7) without requiring the large samples or strict distributional assumptions of covariance-based SEM (Hair et al., 2019). The minimum sample size should be determined not by a fixed rule of thumb but rather through the application of established power-analysis heuristics for the most complex structural path in the model (Hair et al., 2010), considering the number of moderating relationships being tested simultaneously.

CONCLUSION

The digital marketplace has made deception architecturally convenient. Although dark patterns intentionally created design and communication strategies that take advantage of consumer's cognitive limitations and information asymmetry are now documented on most of the world's major digital platforms, academic knowledge of how consumers morally evaluate them and the behavioural outcomes of those evaluations is still

remarkably lacking. By putting out the Dark Pattern Consumer Ethics Framework an integrated theoretical framework that links the dark patterns and marketing ethics literatures through the lens of consumer ethical perception, trust, and behaviour this paper trying to fill that gap.

Four contributions are made by the DPCEF. As the consumer side moral evaluation construct unique to dark patterns, it presents and formally defines Perceived Dark Pattern Unethicality. This theoretically sound and practically applicable construct places dark pattern research within the well-established perceived unethical marketing tradition. It extends Friestad and Wright's (1994) Persuasion Knowledge Model to dark pattern contexts and explains individual variation in ethical response that neither the dark patterns nor marketing ethics literature currently accounts for. It proposes a two stage recognition-evaluation process in which digital literacy serves as the recognition gateway that determines whether idealism can operate as a moral evaluation intensity determinant.

Dark patterns are not a niche design problem or a peripheral regulatory concern. They are a structural feature of the contemporary digital marketplace, one that systematically exploits the cognitive limitations of the consumers on whom digital platform business models depend. Understanding how consumers perceive, evaluate, and respond to this exploitation is not merely an academic question. It is a prerequisite for designing effective regulatory responses, building sustainable platform-consumer relationships, and equipping consumers with the digital literacy they need to protect their own autonomy and welfare in increasingly manipulative digital environments. The DPCEF provides a theoretical foundation for that understanding - and a research agenda for the empirical work that must follow.

REFERENCES

1. Abou Chaar, J., Bachkirov, A., & Razzak, M. A. (2023). Cross-regional insights into the impact of dark patterns on consumer behaviour: The mediating role of online complaint behaviour. *Journal of Retailing and Consumer Services*, 75, 103497. <https://doi.org/10.1016/j.jretconser.2023.103497>
2. Advertising Standards Council of India. (2024). *Conscious patterns report 2024: Dark patterns in Indian digital advertising*. ASCI.
3. Akerlof, G. A. (1970). The market for lemons: Quality uncertainty and the market mechanism. *Quarterly Journal of Economics*, 84(3), 488–500. <https://doi.org/10.2307/1879431>
4. Albrecht, A. K., Schaefer, T., Walsh, G., & Beatty, S. E. (2019). The effect of compensation size on recovery satisfaction after group service failures: The role of the self-construal. *Journal of Service Research*, 22(1), 60–74. <https://doi.org/10.1177/1094670518799228>
5. Aquino, K., & Reed, A. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology*, 83(6), 1423–1440. <https://doi.org/10.1037/0022-3514.83.6.1423>
6. Baker, S. M., Gentry, J. W., & Rittenburg, T. L. (2005). Building understanding of the domain of consumer vulnerability. *Journal of Macromarketing*, 25(2), 128–139. <https://doi.org/10.1177/0276146705280622>
7. Bolton, R. N., Parasuraman, A., Hoefnagels, A., Migchels, N., Kabadayi, S., Gruber, T., Komarova Loureiro, Y., & Solnet, D. (2013). Understanding Generation Y and their use of social media: A review and research agenda. *Journal of Service Management*, 24(3), 245–267. <https://doi.org/10.1108/09564231311326987>
8. Bongard-Blanchy, K., Rossi, A., Rivas, S., Doublet, S., Koenig, V., & Lenzini, G. (2021). "I am definitely manipulated, even when I am aware of it. It's ridiculous!" — Dark patterns from the end-user perspective. In *Proceedings of the 2021 ACM Designing Interactive Systems Conference* (pp. 763–776). ACM. <https://doi.org/10.1145/3461778.3462086>
9. Bösch, C., Erb, B., Kargl, F., Kopp, H., & Pfattheicher, S. (2016). Tales from the dark side: Privacy dark strategies and privacy dark patterns. *Proceedings on Privacy Enhancing Technologies*, 2016(4), 237–254. <https://doi.org/10.1515/popets-2016-0038>
10. Brignull, H. (2010). *Dark patterns: Dirty tricks designers use to make people do things*. Dark Patterns. <https://www.darkpatterns.org>

11. Campbell, M. C. (1995). When attention-getting advertising tactics elicit consumer inferences of manipulative intent: The importance of balancing benefits and investments. *Journal of Consumer Psychology*, 4(3), 225–254. https://doi.org/10.1207/s15327663jcp0403_02
12. Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal of Marketing*, 65(2), 81–93. <https://doi.org/10.1509/jmkg.65.2.81.18255>
13. Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16(1), 64–73. <https://doi.org/10.2307/3150876>
14. Consumer Protection E-Commerce Rules. (2020). *Consumer Protection (E-Commerce) Rules, 2020*. Ministry of Consumer Affairs, Food and Public Distribution, Government of India.
15. DeVellis, R. F. (2016). *Scale development: Theory and applications* (4th ed.). SAGE Publications.
16. European Commission. (2022). *Directive on unfair commercial practices (consolidated version including Digital Services Act amendments)*. Official Journal of the European Union.
17. Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford University Press.
18. Forsyth, D. R. (1980). A taxonomy of ethical ideologies. *Journal of Personality and Social Psychology*, 39(1), 175–184. <https://doi.org/10.1037/0022-3514.39.1.175>
19. Friestad, M., & Wright, P. (1994). The persuasion knowledge model: How people cope with persuasion attempts. *Journal of Consumer Research*, 21(1), 1–31. <https://doi.org/10.1086/209380>
20. Gazafroudi, M. S. G., Saedirad, F., Kheiri, B., & Aligholi, M. (2018). Ethical ideology and perceived unethical marketing. *International Journal of Ethics and Systems*, 34(3), 362–376. <https://doi.org/10.1108/IJOES-09-2017-0163>
21. Goodwin, C. (1980). Privacy: Recognition of a consumer right. *Journal of Public Policy and Marketing*, 11(1), 149–166. <https://doi.org/10.1177/074391569201100109>
22. Gray, C. M., Kou, Y., Battles, B., Hoggatt, J., & Toombs, A. L. (2018). The dark (patterns) side of UX design. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (Paper 534, pp. 1–14). ACM. <https://doi.org/10.1145/3173574.3174108>
23. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Pearson.
24. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
25. Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the internet? *Journal of Interactive Marketing*, 18(1), 38–52. <https://doi.org/10.1002/dir.10073>
26. Hirschman, A. O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states*. Harvard University Press.
27. Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. SAGE Publications.
28. Kim, P. H., Dirks, K. T., Cooper, C. D., & Ferrin, D. L. (2004). When more blame is better than less: The implications of internal vs. external attributions for the repair of trust after a competence- vs. integrity-based trust violation. *Organizational Behavior and Human Decision Processes*, 99(1), 49–65. <https://doi.org/10.1016/j.obhdp.2005.07.004>
29. Kim, S., Kim, J., & Lee, Y. (2023). Impact of dark patterns on perceived fairness and attitude: Moderating effects of moral identity and social proof. *Computers in Human Behavior*, 145, 107756. <https://doi.org/10.1016/j.chb.2023.107756>
30. Leonidou, C. N., Leonidou, L. C., Coudounaris, D. N., & Hultman, M. (2013). Value differences as determinants of consumers' ethical beliefs: The role of power distance and individualism. *Journal of Business Research*, 66(9), 1485–1495. <https://doi.org/10.1016/j.jbusres.2012.05.010>
31. Luguri, J., & Strahilevitz, L. J. (2021). Shining a light on dark patterns. *Journal of Legal Analysis*, 13(1), 43–109. <https://doi.org/10.1093/jla/laaa006>
32. Mathur, A., Acar, G., Friedman, M. J., Lucherini, E., Mayer, J., Chetty, M., & Narayanan, A. (2019). Dark patterns at scale: Findings from a crawl of 11K shopping websites. *Proceedings of the ACM on Human-Computer Interaction*, 3(CSCW), Article 81, 1–32. <https://doi.org/10.1145/3359183>

33. McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). Developing and validating trust measures for e-commerce: An integrative typology. *Information Systems Research*, 13(3), 334–359. <https://doi.org/10.1287/isre.13.3.334.81>
34. Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20–38. <https://doi.org/10.1177/002224299405800302>
35. Murphy, P. E., Laczniak, G. R., Bowie, N. E., & Klein, T. A. (2005). *Ethical marketing*. Pearson Prentice Hall.
36. OECD. (2022). *Dark commercial patterns* (OECD Digital Economy Papers, No. 336). OECD Publishing. <https://doi.org/10.1787/44f5e846-en>
37. Oyibo, K. (2023). Influence of user knowledge and usage behaviour on decision-making and perceived reputation in the presence of dark patterns. *Behaviour and Information Technology*, 42(14), 2451–2469. <https://doi.org/10.1080/0144929X.2022.2129083>
38. Paul, J., & Criado, A. R. (2020). The art of writing literature review: What do we know and what do we need to know? *International Business Review*, 29(4), 101717. <https://doi.org/10.1016/j.ibusrev.2020.101717>
39. Rawwas, M. Y. A. (2001). Culture, personality and morality: A typology of international consumers' ethical beliefs. *International Marketing Review*, 18(2), 188–211. <https://doi.org/10.1108/02651330110390006>
40. Simon, H. A. (1955). A behavioral model of rational choice. *Quarterly Journal of Economics*, 69(1), 99–118. <https://doi.org/10.2307/1884852>
41. Singhapakdi, A., Vitell, S. J., & Kraft, K. L. (1995). Moral intensity and ethical decision-making of marketing professionals. *Journal of Business Research*, 36(3), 245–255. [https://doi.org/10.1016/0148-2963\(95\)00155-7](https://doi.org/10.1016/0148-2963(95)00155-7)
42. Telecom Regulatory Authority of India. (2023). *Telecom subscription data — November 2023*. TRAI. <https://www.trai.gov.in>
43. Tsalikis, J., & Fritzsche, D. J. (1989). Business ethics: A literature review with a focus on marketing ethics. *Journal of Business Ethics*, 8(9), 695–743. <https://doi.org/10.1007/BF00384148>
44. Turow, J., King, J., Hoofnagle, C. J., Bleakley, A., & Hennessy, M. (2009). *Americans reject tailored advertising and three activities that enable it*. Annenberg School for Communication, University of Pennsylvania. https://repository.upenn.edu/asc_papers/137
45. van Deursen, A. J. A. M., & van Dijk, J. A. G. M. (2011). Internet skills and the digital divide. *New Media and Society*, 13(6), 893–911. <https://doi.org/10.1177/1461444810386774>
46. Vitell, S. J., & Muncy, J. (2005). The Muncy-Vitell consumer ethics scale: A modification and application. *Journal of Business Ethics*, 62(3), 267–275. <https://doi.org/10.1007/s10551-005-7058-9>
47. Witte, C., Kenning, P., & Brock, C. (2022). Dark patterns in online retailing and their effects on consumer trust and purchase intention. *Journal of Consumer Behaviour*, 21(6), 1351–1364. <https://doi.org/10.1002/cb.2083>
48. Xia, L., Monroe, K. B., & Cox, J. L. (2004). The price is unfair! A conceptual framework of price fairness perceptions. *Journal of Marketing*, 68(4), 1–15. <https://doi.org/10.1509/jmkg.68.4.1.42733>
49. Youn, S. (2009). Determinants of online privacy concern and its influence on privacy protection behaviors among young adolescents. *Journal of Consumer Affairs*, 43(3), 389–418. <https://doi.org/10.1111/j.1745-6606.2009.01146.x>
50. Zac, N., Huang, R., von Moltke, A., Decker, S., & Ezrachi, A. (2023). Dark patterns and consumer vulnerability: An empirical study. *Journal of Consumer Policy*, 46(3), 289–318. <https://doi.org/10.1007/s10603-023-09542-6>
51. Zucker, L. G. (1986). Production of trust: Institutional sources of economic structure, 1840–1920. *Research in Organizational Behavior*, 8, 53–111.
52. Kugler, M. B., Strahilevitz, L. J., Chetty, M., Mahapatra, C., & Ulloa, Y. (2025) Can consumers protect themselves against privacy dark patterns? *University of New Hampshire Law Review*, 23(2). https://scholars.unh.edu/unh_lr/vol23/iss2/6/
53. Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 60(2), 31–46.