

BARRIER TO ENTRY: RETHINKING ABUSE OF DOMINANCE IN THE AGE OF DIGITAL MARKETS

by

Vishnu Yadav

ABSTRACT

In the digital economy, market power is no longer defined solely by traditional metrics such as price control or output restriction. Instead, it is increasingly entrenched by control over data, network effects, algorithmic design, and platform intermediation. This research explores the evolving contours of “abuse of dominance” in the context of digital markets, with a specific focus on how new forms of entry barriers—such as data monopolization, lock-in effects, and self-preferencing—reshape competition law enforcement. While traditional antitrust tools emphasized output and pricing models, they often fall short in addressing exclusionary conduct that impedes innovation and consumer choice in the digital economy. This paper critically evaluates the adequacy of India’s Competition Act, 2002 in regulating such barriers and draws comparisons with the European Union’s Digital Markets Act and jurisprudence under Article 102 TFEU. The analysis further reflects on the challenges faced by the Competition Commission of India in market definition, evidence thresholds, and the need for ex-ante tools. Through a comparative and doctrinal lens, the paper proposes a recalibration of legal standards to recognize and address abuse rooted in digital architecture rather than merely pricing strategies.

Keywords

Digital Markets, Abuse of Dominance, Barriers to Entry, Platform Economy, Data Monopolies, Network Effects, Predatory Pricing, Self-Preferencing, Digital Markets

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1. The Evolving Landscape of Market Power in the Digital Age

The evolution of market structures in the digital era has disrupted traditional frameworks for assessing competition and dominance. Unlike classical industrial markets where barriers to entry were primarily structural or financial, digital platforms wield market power through intangible assets such as data, algorithms, user base, and technological infrastructure. The prevailing antitrust paradigm—premised on static efficiencies and price-output assessments—often fails to capture the nuanced and dynamic forms of exclusion that pervade the digital economy. This disconnect necessitates a fundamental rethinking of what constitutes “abuse of dominance” in contemporary markets.

The Competition Act, 2002, which governs abuse of dominance in India, defines dominance as a position of strength that enables a firm to operate independently of competitive forces and affect consumers or competitors in its favor. Section 4 prohibits abusive conduct by dominant enterprises, including imposition of unfair prices or conditions, denial of market access, and leveraging dominant position in one market to enter another. However, these provisions were designed for traditional markets where dominance could be assessed through price behavior, market shares, and consumer harm. In contrast, digital markets—often defined by zero-price models, multi-sided intermediation, and data-driven personalization—challenge these foundational assumptions.

For instance, major digital firms such as Google, Amazon, and Meta do not charge end-users in monetary terms, making it difficult to deploy the standard SSNIP (Small but Significant and Non-transitory Increase in Price) test to define relevant markets. Moreover, these firms accumulate competitive advantages by capturing and analyzing large volumes of user data, which fuels algorithmic targeting and reinforces user lock-in. This creates positive feedback loops and indirect network effects, wherein the utility of the platform increases with each new user or dataset, making it progressively harder for new entrants to compete effectively.

The legal and economic understanding of barriers to entry has thus transformed. Traditional barriers such as capital requirements or access to raw materials are supplanted by control over digital infrastructure, technological integration, and regulatory gaming. These new forms of entrenchment manifest as “data network effects,” “self-preferencing,” and “gatekeeper power”—phenomena increasingly recognized by global antitrust regulators but only partially addressed in Indian jurisprudence. As observed by Srivastava and Kumar, the accumulation of data through user engagement has made it possible for platforms to build “datapolies” that

restrict competition not by outright exclusion, but by raising the cost of effective market participation for rivals.¹

This complexity is also evident in the enforcement practices of the Competition Commission of India (CCI). Although the CCI has examined cases involving abuse of dominance by digital firms—such as Google’s Android tying case and Amazon’s preferential treatment of sellers—its decisions often grapple with definitional and evidentiary challenges. For example, the CCI’s approach to defining the “relevant market” often relies on tools ill-suited for multi-sided platforms, and there is limited recognition of how data accumulation or default bias (e.g., pre-installed apps) functions as exclusionary conduct.² These constraints point to a broader issue: existing legal frameworks are ill-equipped to handle the structural and behavioral nuances of platform-based markets.

International jurisdictions have begun to recognize this gap. The European Union’s Digital Markets Act (DMA) and evolving jurisprudence under Article 102 of the TFEU signify a shift toward ex-ante regulation and recognition of novel abuses such as self-preferencing, tying of digital services, and interoperability denial.³ These initiatives aim to restore contestability and address innovation harms that go beyond conventional consumer welfare metrics. In contrast, India’s approach remains largely ex-post and reactive, constrained by a doctrinal reliance on pricing benchmarks and high thresholds for proof of harm.

This paper aims to bridge that analytical gap by re-examining the concept of “barriers to entry” in the digital context, focusing on how entrenched dominance manifests not through price manipulation but through technological and behavioral control. The analysis will explore the inadequacy of existing legal tools, the implications of global regulatory innovations, and propose doctrinal and legislative reforms to equip the Indian antitrust regime for the platform age.

2. Defining Dominance in Digital Markets: Platform Characteristics and Data Power

The digital economy has introduced a unique class of firms—multi-sided platforms—whose dominance does not rest solely on traditional parameters like output, pricing, or vertical

¹ Ankit Srivastava & Divyansha Kumar, *Digital Economy, Data and Dominance: An Indian Perspective*, 2 CCI J. on Competition L. & Pol’y 97, 99–100 (2021).

² Competition Comm’n of India, *In Re: Google LLC & Ors.*, Case No. 39 of 2018 (Oct. 20, 2022), available at <https://www.cci.gov.in>.

³ Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 Sept. 2022 on Contestable and Fair Markets in the Digital Sector (Digital Markets Act), 2022 O.J. (L 265) 1.

integration. Instead, dominance today is shaped by three interlinked attributes: network effects, control over data, and self-reinforcing market behavior. These elements construct formidable entry barriers that standard antitrust doctrines often struggle to address.

Unlike in traditional markets, where dominance is typically exercised through unilateral price hikes or exclusionary agreements, digital dominance often manifests in subtler but more durable forms. A fundamental characteristic of digital platforms is the presence of multi-sided market dynamics, where a single firm mediates transactions between distinct user groups—such as advertisers and consumers (as with Google), sellers and buyers (as with Amazon), or app developers and users (as with Apple's App Store).⁴ The presence of indirect network effects in such markets creates positive feedback loops: the more users on one side of the platform, the more valuable the platform becomes to users on the other side, and vice versa.

Network effects alone, however, do not establish dominance. It is the platform's ability to lock in users—through personalized interfaces, switching costs, and ecosystem bundling—that reinforces its market power. First-mover advantage in digital markets is further entrenched by data-driven feedback mechanisms. As noted by Liebowitz, the platform that captures the initial user base is more likely to dominate the market due to lock-in and "winner-take-all" dynamics.⁵ Once entrenched, such platforms enjoy near-monopoly status, regardless of short-term pricing or output indicators.

In digital markets, data itself functions as both a resource and a source of power. Control over large datasets enables firms to refine algorithms, offer personalized services, and anticipate user behavior—capacities that new entrants often lack.⁶ The ability to aggregate, analyze, and monetize data constitutes a modern form of capital that gives incumbent platforms a durable advantage. As Anush Ganesh observes in his doctoral thesis, excessive data collection can be tantamount to abuse of dominance under Article 102(a) of the TFEU when it creates consumer lock-in, raises switching costs, and limits market contestability.⁷

The Indian Competition Act, 2002, however, does not explicitly recognize data accumulation as a source of dominance. Section 19(4) provides a non-exhaustive list of factors to determine

⁴ OECD, *Rethinking Antitrust Tools for Multi-Sided Platforms* (2018), <https://www.oecd.org/competition/rethinking-antitrust-tools-for-multi-sided-platforms.htm>.

⁵ Stan J. Liebowitz, *Rethinking the Networked Economy: The True Forces Driving the Digital Marketplace* 17–21 (2002).

⁶ James M. Bond, *From the Age of Industry to the Age of Information: Rethinking Monopoly in the Data-Driven Present* 29–32 (Georgetown Univ. 2022) (undergraduate thesis).

⁷ Anush Ganesh, *Pricing Practices in Digital Markets: An Abuse of Dominance Approach* 106–110 (Ph.D. thesis, Univ. of East Anglia, 2023).

dominance, including market share, size and resources, and dependence of consumers.⁸ While these criteria can be interpreted broadly to include data-related advantages, their application in the digital context has been inconsistent. In most CCI decisions involving digital platforms, dominance has been inferred based on market shares or user base without adequate attention to the role of data as a strategic asset.⁹

Another challenge lies in market definition. Traditional methods, such as the SSNIP test, are ill-suited for platforms that offer services at zero price.¹⁰ Platforms like Facebook, Google Search, or WhatsApp do not charge users directly, making it difficult to assess market substitutability based on price variation. This has led to the emergence of the SSNDQ (Small but Significant Non-transitory Decrease in Quality) test in European jurisdictions, which assesses market boundaries by analyzing qualitative differences such as privacy, speed, or data-sharing practices.¹¹ Despite its theoretical appeal, the SSNDQ test is yet to find a foothold in Indian antitrust analysis.

Moreover, defining a “relevant market” in multi-sided platforms is complex due to the interdependence of user groups. The European Commission has taken steps to redefine markets by looking at inter-platform competition and cross-market integration. For instance, the Facebook Germany case recognized how user data obtained across multiple services—Facebook, WhatsApp, Instagram—enhanced its market power through cross-platform combination.¹² Indian regulators, however, have yet to fully internalize such cross-market synergies in their assessments.

Dominance is further reinforced by default bias and structural bundling. Platforms often pre-install their services on operating systems or bundle them with unrelated functionalities. Google’s bundling of its suite of applications (Search, Chrome, YouTube, etc.) with Android devices is a case in point. The CCI in 2022 held that such practices distorted competition by creating artificial barriers for rival app developers and browsers.¹³ Yet, the decision focused more on pre-installation and tying than on the strategic use of data or algorithmic design to suppress rivals—a gap that needs addressing in future cases.

⁸ Competition Act, 2002, § 19(4), No. 12, Acts of Parliament, 2003 (India).

⁹ Competition Comm’n of India, *In Re: Matrimony.com Ltd. v. Google LLC*, Case No. 7 of 2012 (Feb. 8, 2018), available at <https://www.cci.gov.in>.

¹⁰ OECD, *Challenges to Market Definition in the Platform Economy* (2019), <https://www.oecd.org/daf/competition/market-definition-in-the-platform-economy.htm>.

¹¹ Anush Ganesh, *supra* note 7, at 44–47.

¹² Case C-252/21, *Meta Platforms Inc. v. Bundeskartellamt*, 2023 E.C.R. (Facebook Germany Case).

¹³ Competition Comm’n of India, *In Re: Google LLC & Ors.*, Case No. 39 of 2018 (Oct. 20, 2022).

What emerges is a multidimensional picture of dominance in digital markets—far removed from the static analysis of past decades. It includes behavioral lock-in, surveillance-based personalization, algorithmic discrimination, and closed ecosystems. These realities demand a recalibration of existing legal tools. While India has made important strides in identifying dominance in high-tech sectors, the enforcement framework remains tethered to traditional metrics. The inclusion of factors such as “access to data,” “algorithmic control,” and “network externalities” in statutory analysis could enable the CCI to better capture the unique structures of digital dominance.

3. Network Effects, Economies of Scale, and First-Mover Advantage as Entry Barriers

In digital markets, network effects and scale economies operate as formidable barriers to entry. Traditional antitrust law has long scrutinized structural factors like vertical integration or ownership of essential facilities, but digital platforms present a unique challenge: they grow rapidly, often while providing free services, and create markets that “tip” toward monopolistic or oligopolistic outcomes. The result is the entrenchment of early movers who leverage data, user base, and platform integration to deter rivals without resorting to classic exclusionary practices.

A. The Mechanics of Network Effects

Network effects—both direct and indirect—form the backbone of platform dominance. A direct network effect arises when a service becomes more valuable as more people use it. Messaging apps such as WhatsApp or social networks like Facebook exhibit direct network effects: their value depends on user participation. Indirect network effects, on the other hand, occur when an increase in users on one side of the platform (e.g., consumers) attracts more users on another side (e.g., advertisers or developers), reinforcing a self-reinforcing growth cycle.¹⁴

These network effects not only increase utility but also create significant switching costs. Once a critical mass is reached, users are disincentivized to migrate to alternative platforms unless those platforms can match or exceed the incumbents' user base and data-driven personalization.¹⁵ For example, a new social network or e-commerce site may be functionally superior but still fail to compete due to insufficient scale, making “tipping” almost inevitable.

¹⁴ OECD, Rethinking Antitrust Tools for Multi-Sided Platforms 8 (2018), <https://www.oecd.org/competition/rethinking-antitrust-tools-for-multi-sided-platforms.htm>.

¹⁵ James M. Bond, From the Age of Industry to the Age of Information: Rethinking Monopoly in the Data-Driven Present 57 (Georgetown Univ. 2022) (undergraduate thesis).

B. Scale Economies and Data Flywheels

Digital platforms often operate under extremely low marginal costs, allowing them to expand rapidly once a basic infrastructure is in place. Cloud services, digital storage, and algorithmic processing allow scalability at unprecedented levels. This leads to economies of scale—where average costs decline as output increases—which in turn reduces unit prices and creates cost advantages that new entrants cannot easily replicate.¹⁶

However, scale alone is not the only determinant. A more critical factor is what the European Commission terms the "data flywheel effect." Every interaction on a platform generates data, which can be analyzed to improve algorithms, attract more users, and further enhance the platform's value.¹⁷ This recursive process turns data into a self-reinforcing resource. For example, Google's search engine improves as more people use it, producing better results that further attract users—thereby consolidating its market share.¹⁸

This feedback loop leads to what Herbert Hovenkamp calls "informational leveraging," where the possession and use of data becomes the key mechanism by which firms sustain dominance, not merely pricing or bundling.¹⁹ Such leveraging of informational asymmetry inherently disadvantages latecomers and transforms early user acquisition into an enduring competitive moat.

C. Strategic Subsidization and Predatory Pricing

Digital platforms often use free or subsidized offerings to acquire users, later monetizing them through advertising, cross-selling, or data exploitation. While not illegal per se, such pricing strategies can cross the line into predatory behavior when intended to eliminate competition or raise rivals' costs.²⁰

The Reliance Jio case in India illustrates this phenomenon. Jio entered the telecom market by offering one year of free data and calling services, rapidly capturing market share. Though its market share was initially low, the strategic subsidization forced competitors like Airtel and Vodafone into losses, leading to long-term market realignment. The CCI, however, ruled that

¹⁶ Simonetta Vezzoso, *The Digital Markets Act Under Initial Scrutiny: A Variation-Selection-Adaptation Framework* 4–5 (Apr. 17, 2025), <https://ssrn.com/abstract=5219724>.

¹⁷ *Id.* at 7–8.

¹⁸ Filippo Lancieri & Patricia Sakowski, *Competition in Digital Markets: A Review of Expert Reports* 30–32, Stigler Ctr. Working Paper No. 303 (2020), <https://www.econstor.eu/handle/10419/262705>.

¹⁹ Herbert Hovenkamp, *Monopolizing Digital Commerce*, 64 Wm. & Mary L. Rev. 1677, 1707–08 (2023).

²⁰ Konstantinos Stylianou, *Exclusion in Digital Markets*, 24 Mich. Telecomm. & Tech. L. Rev. 181, 210–15 (2018).

Reliance was not dominant at the time and thus not liable under Section 4 of the Competition Act.²¹ The case underscores a doctrinal limitation: predatory pricing in digital contexts is often employed before dominance is established, making enforcement difficult unless ex-ante tools are available.

In the EU, the notion of “cross-subsidization” as a form of exclusionary abuse has gained traction, particularly in platform cases involving Amazon and Apple, where free or discounted services on one side of the platform are subsidized by extracting rents on the other.²² Anush Ganesh argues for a “modified test” of predation in such cases, focusing not on short-term pricing below cost, but on long-term exclusion through multi-market leverage and capital infusion.²³

D. Winner-Takes-All Markets and Lock-In

The confluence of network effects and scale economies frequently leads to winner-takes-all or winner-takes-most outcomes. As Stan Liebowitz notes, digital platforms are particularly susceptible to market tipping because users and business models rely on complementary interactions.²⁴ Once a dominant firm establishes its ecosystem, late entrants face multiple disadvantages: less data, fewer users, and reduced developer interest.

Moreover, platforms often create technological or behavioral lock-ins. For example, Apple’s iOS ecosystem links devices, applications, payment systems, and even hardware accessories. The cost of leaving this ecosystem is more than monetary—it involves loss of functionality, personalization, and convenience. Similarly, Google’s dominance in search, maps, and advertising gives it the ability to create default pathways that reinforce user retention.²⁵

This entrenchment often exists despite the apparent presence of “choice.” While users may technically switch between services, the functional cost of doing so—such as loss of contacts, content, or familiarity—keeps them bound to dominant platforms. These frictions operate as de facto entry barriers and are yet to be adequately recognized in Indian antitrust jurisprudence.

²¹ Competition Comm’n of India, In Re: Bharti Airtel Ltd. v. Reliance Jio Infocomm Ltd., Case No. 80 of 2016 (Feb. 9, 2017).

²² Case AT.40462, Amazon Marketplace (Eur. Comm’n Dec. 2022); Case AT.40452, Apple App Store Practices (Eur. Comm’n 2021).

²³ Anush Ganesh, Pricing Practices in Digital Markets: An Abuse of Dominance Approach 166–70 (Ph.D. thesis, Univ. of East Anglia, 2023).

²⁴ Stan J. Liebowitz, Rethinking the Networked Economy: The True Forces Driving the Digital Marketplace 17–21 (2002).

²⁵ Competition Comm’n of India, In Re: Google LLC & Ors., Case No. 39 of 2018 (Oct. 20, 2022).

E. Implications for Competition Law

In light of the above, existing legal standards for assessing entry barriers require recalibration. In India, the Competition Act, 2002 does not explicitly address network effects or scale economies as factors indicating dominance. Section 19(4)(m) vaguely references “entry barriers,” but the interpretation remains narrow. The CCI must evolve its approach by incorporating factors like user lock-in, data flywheels, and platform entrenchment into dominance assessments.²⁶

Globally, competition authorities are moving toward this direction. The European Commission and UK CMA now routinely consider the implications of network effects in platform investigations. The proposed amendments to India’s Competition Act and the establishment of a Digital Competition Law Committee (2023) offer a timely opportunity to embed these considerations into law and policy.

4. Abuse of Dominance Reimagined: From Price Exploitation to Data Exploitation

The notion of “abuse of dominance” under classical antitrust theory is primarily tied to pricing strategies—excessive pricing, predatory pricing, or price discrimination. However, the digital economy requires a reimagining of this doctrine, shifting the lens from price to power over data, attention, design, and default. In platform markets where services are often “free,” the currency is not money but personal data and attention. Dominance is entrenched not through traditional pricing but through exploitative terms of data collection, lack of meaningful consent, and algorithmic steering. Accordingly, modern competition law must address how dominant platforms exploit their position not merely economically but informationally and behaviorally.

A. Limitations of Traditional Price-Based Abuse Frameworks

Under Section 4 of the Competition Act, 2002, abuse is defined through conduct such as imposing unfair or discriminatory pricing (Section 4(2)(a)), limiting or restricting technical development (Section 4(2)(b)), and denying market access (Section 4(2)(c)). These provisions were modeled on Article 102 TFEU and were adequate for traditional single-sided markets.²⁷ However, in digital markets, where firms like Google, Facebook, and Amazon offer services at zero monetary cost, this framework is conceptually limited. Consumers “pay” with their data

²⁶ Competition Act, 2002, § 19(4)(m), No. 12, Acts of Parliament, 2003 (India).

²⁷ Competition Act, 2002, § 4(2), No. 12, Acts of Parliament, 2003 (India).

and attention, leading to non-price harms like privacy violations, exploitative default settings, and quality degradation.

Anush Ganesh notes that digital platforms may engage in "first-degree price discrimination" through data-driven personalization, offering different prices or experiences to different users without transparency or consent.²⁸ While this may optimize efficiency, it undermines fairness and consumer autonomy, especially when platforms operate with opaque algorithms. Courts and regulators must thus recognize that the core of exploitation in digital markets lies not in monetary cost but in control over user behavior and choice architecture.

B. Excessive Data Collection and Consent Illusions

One of the central concerns in the digital economy is the excessive, often surreptitious, collection of personal data. Dominant platforms utilize "take-it-or-leave-it" consent models that leave users with no meaningful choice but to agree to broad data harvesting practices. The German Federal Cartel Office (Bundeskartellamt) in the Facebook case held that such practices violate competition law when tied to dominance and lack of proper user consent.²⁹ The case was notable for merging data protection and competition law, arguing that Facebook's unilateral imposition of non-consensual data collection amounts to exploitative abuse under Article 102(a) TFEU.³⁰

This precedent has direct relevance to India, where dominant platforms deploy similar strategies. Yet the Indian legal framework lacks a clear mechanism to recognize such non-price abuses as anticompetitive. The CCI has, in some decisions, acknowledged data as a competitive asset, but it has not yet ruled that excessive data extraction itself constitutes abuse under Section 4(2)(a).³¹ This gap exposes consumers to harm and leaves regulators reactive rather than proactive.

C. Algorithmic Exploitation and Dark Patterns

Algorithmic design is another frontier of abuse. Dominant platforms use algorithmic sorting, recommendation, and personalization not only to enhance user engagement but also to nudge users into paths that maximize data extraction or ad revenue. When such nudges take the form

²⁸ Anush Ganesh, *Pricing Practices in Digital Markets: An Abuse of Dominance Approach* 85–88 (Ph.D. thesis, Univ. of East Anglia, 2023).

²⁹ Case B6-22/16, *Facebook – Exploitative Business Terms*, Bundeskartellamt (Feb. 2019), <https://www.bundeskartellamt.de>.

³⁰ Case C-252/21, *Meta Platforms Inc. v. Bundeskartellamt*, 2023 E.C.R.

³¹ Competition Comm'n of India, *In Re: Matrimony.com Ltd. v. Google LLC*, Case No. 7 of 2012 (Feb. 8, 2018).

of “dark patterns”—interface designs that manipulate user decisions—they can lead to exploitative outcomes.

Recent studies show that dominant firms employ default settings and complex opt-out mechanisms that discourage privacy-friendly choices.³² When such practices are deployed by firms with overwhelming market power, they can result in sustained informational asymmetry and suppression of user choice. The European Commission and U.S. FTC have both begun investigating these practices under consumer protection and competition statutes, but Indian law is yet to fully grapple with such behavioral exploitation.

The inclusion of dark patterns as an abuse of dominance would require doctrinal expansion. As Herbert Hovenkamp argues, exploitation today is not about raising prices but about “controlling access to user attention and data.”³³ The use of design to entrench user dependency or prevent multi-homing should thus be seen as a form of unfair trading condition, as contemplated in Section 4(2)(a)(i) of the Competition Act.

D. Self-Preferencing and Data Foreclosure

Another manifestation of data exploitation is self-preferencing, where a dominant platform uses its control over user data or algorithmic placement to promote its own services at the expense of rivals. For example, Amazon has been accused of harvesting seller data from its marketplace to launch competing private label products.³⁴ Similarly, Google’s Search algorithm has been scrutinized for placing its own vertical services (e.g., Maps, Shopping) above those of rivals, irrespective of quality or relevance.³⁵

While the CCI in India has recognized self-preferencing as an abuse in the Google Shopping case, its enforcement was largely centered on visibility bias and market access, without fully analyzing the role of data capture and cross-market leveraging.³⁶ To evolve further, Indian law must consider data foreclosure—the use of user or business data collected on one side of a platform to dominate another market—as a distinct form of exclusionary abuse.

E. Need for Integrated Enforcement Approaches

³² OECD, Dark Commercial Patterns 4–7 (2022), <https://www.oecd.org>.

³³ Herbert Hovenkamp, Monopolizing Digital Commerce, 64 Wm. & Mary L. Rev. 1677, 1709 (2023).

³⁴ Case AT.40462, Amazon Marketplace (Eur. Comm’n Dec. 2022).

³⁵ Case AT.39740, Google Search (Shopping), Eur. Comm’n Dec. 2017.

³⁶ Competition Comm’n of India, In Re: Google LLC & Ors., Case No. 39 of 2018 (Oct. 20, 2022).

A coherent strategy for tackling data-based abuse requires harmonization across competition, data protection, and consumer law. The proposed Digital India Act and the Digital Personal Data Protection Act (2023) provide useful starting points. However, without an integrated institutional mechanism or cross-agency cooperation, enforcement remains siloed. As Ganesh notes, “competition law can serve as a complementary check on exploitative data practices, especially where consumer harm arises from power asymmetries.”³⁷

The EU's DMA is one such attempt to institutionalize this synergy. It imposes specific obligations on gatekeepers, including restrictions on combining personal data across services, mandatory interoperability, and restrictions on self-preferencing.³⁸ Similar provisions must be considered in India through either statutory amendment or the formulation of sector-specific codes under Section 49 of the Competition Act.

5. Regulatory Responses and Institutional Challenges in India

As India's digital economy continues its exponential growth, the regulatory architecture for tackling dominance in digital markets remains fragmented, reactive, and largely modeled on traditional industrial-era antitrust paradigms. While the Competition Commission of India (CCI) has made significant strides in addressing anti-competitive conduct by digital platforms, its approach has often been constrained by outdated legal doctrines, institutional limitations, and the absence of proactive regulatory tools. This section explores the strengths and limitations of India's current enforcement mechanisms and the challenges that lie ahead in effectively regulating abuse of dominance in the digital context.

A. CCI's Early Engagement with Digital Markets

The CCI has been increasingly called upon to scrutinize the practices of global digital giants such as Google, Amazon, Facebook, Apple, and Flipkart. In landmark cases like *Matrimony.com v. Google*, the CCI found Google guilty of self-preferencing in its shopping search results, thereby abusing its dominant position in the online search market under Section 4(2)(c) of the Competition Act.³⁹ The decision was one of the first in India to recognize algorithmic bias as a form of market foreclosure, albeit without a broader data-centric analysis.

³⁷ Anush Ganesh, *supra* note 18, at 132.

³⁸ Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 Sept. 2022 on Contestable and Fair Markets in the Digital Sector (Digital Markets Act), 2022 O.J. (L 265) 1.

³⁹ Competition Comm'n of India, *In Re: Matrimony.com Ltd. v. Google LLC*, Case No. 7 of 2012 (Feb. 8, 2018), <https://www.cci.gov.in>.

In another key case, *In Re: Google LLC & Ors.*, the CCI fined Google ₹936 crore for abusing its dominance through pre-installation of Google applications on Android OS devices, which created status quo bias and stifled innovation.⁴⁰ While this ruling marked an advancement in identifying non-price forms of abuse, the CCI still relied heavily on conventional market definition tools and did not fully analyze network effects, multi-sided dynamics, or data foreclosure.

In e-commerce, the CCI launched a market study in 2020 that highlighted platform neutrality, data usage, deep discounting, and exclusive tie-ups as potential areas of concern.⁴¹ While informative, the study stopped short of recommending structural changes or ex-ante regulatory interventions.

B. Doctrinal and Evidentiary Constraints

One of the most pressing challenges faced by the CCI is the lack of clarity and adaptability in the legal standards governing digital dominance. Section 4 of the Competition Act, while broad, remains rooted in price-based exploitation and exclusion paradigms. There is no explicit statutory reference to control over data, network effects, or algorithmic bias.⁴² This creates ambiguity in identifying novel abuses specific to digital platforms.

Evidentiary constraints also hinder effective enforcement. In digital cases, competition harms are often indirect, long-term, and non-price based. Unlike traditional cartels or mergers, where quantitative data on price or output can be used to establish harm, digital dominance often involves qualitative degradation—such as reduced privacy, limited innovation, or unfair ranking—that is difficult to quantify. The CCI has limited forensic capacity to analyze complex algorithms, platform design choices, or data-sharing agreements.⁴³

Moreover, digital platforms often use jurisdictional arbitrage and contractual opacity to avoid scrutiny. For instance, by citing different entities for platform ownership and data processing, firms can obfuscate regulatory lines of inquiry. This creates challenges not just for the CCI but also for sectoral regulators like TRAI, RBI, and the Ministry of Electronics and Information Technology (MeitY), which often work in silos.

⁴⁰ Competition Comm'n of India, *In Re: Google LLC & Ors.*, Case No. 39 of 2018 (Oct. 20, 2022).

⁴¹ Competition Comm'n of India, *Market Study on E-Commerce in India* (Jan. 2020), <https://www.cci.gov.in>.

⁴² Competition Act, 2002, § 4(2), No. 12, Acts of Parliament, 2003 (India).

⁴³ Filippo Lancieri & Patricia Sakowski, *Competition in Digital Markets: A Review of Expert Reports*, Stigler Ctr. Working Paper No. 303, at 23–24 (2020).

C. Absence of Ex-Ante Regulatory Tools

Another critical gap in India's competition law framework is the absence of ex-ante mechanisms to regulate dominant digital platforms. The CCI is largely an ex-post enforcement agency—it can act only after a complaint is filed or on its own motion once a market failure has occurred. This approach is inadequate in the fast-moving, high-stakes digital economy, where delayed interventions can cause irreversible market distortions.

In contrast, the European Union's Digital Markets Act (DMA) empowers regulators to impose proactive obligations on designated "gatekeepers," including prohibitions on self-preferencing, mandatory data sharing, and interoperability requirements.⁴⁴ The UK's Digital Markets Unit (DMU) is similarly being equipped with bespoke powers to oversee platform conduct. India currently lacks such a framework, though the idea has gained traction with the formation of the Committee on Digital Competition Law (CDCL) in 2023.⁴⁵

The CDCL's report (2024) has recommended a hybrid model: maintaining the existing ex-post structure while creating a new ex-ante framework for "Systemically Significant Digital Enterprises" (SSDEs). The recommendations include mandatory codes of conduct, compliance audits, and independent oversight. If implemented, this could represent a significant turning point in India's digital regulation.

D. Institutional Challenges and Coordination Failures

A key obstacle to effective regulation is institutional overlap and fragmentation. Data-related harms, for example, fall under the purview of both the CCI and the newly established Data Protection Board (DPB) under the Digital Personal Data Protection Act, 2023. Similarly, fintech platforms are regulated by the RBI, while e-commerce falls under DPIIT's policy domain.⁴⁶ The absence of a central coordinating authority often results in inconsistent enforcement, duplication of efforts, or regulatory arbitrage by firms.

This institutional ambiguity has allowed platforms to sidestep scrutiny. For instance, CCI investigations into Amazon and Flipkart were stalled due to pending litigation in the Karnataka High Court.⁴⁷ Similarly, platform conduct that could qualify as both unfair trade practice under

⁴⁴ Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 Sept. 2022 on Contestable and Fair Markets in the Digital Sector (Digital Markets Act), 2022 O.J. (L 265) 1.

⁴⁵ Ministry of Corporate Affairs, Report of the Committee on Digital Competition Law (2024), <https://www.mca.gov.in>.

⁴⁶ Digital Personal Data Protection Act, 2023, No. 22, Acts of Parliament, 2023 (India).

⁴⁷ Amazon Seller Servs. Pvt. Ltd. v. Competition Comm'n of India, W.P. No. 3363/2020 (Kar. HC).

consumer law and abuse under competition law often goes unaddressed due to a lack of inter-agency referral mechanisms.

To overcome these issues, scholars have called for the establishment of a high-level Digital Competition Authority that integrates competition, data protection, and consumer regulation under a unified umbrella.⁴⁸ Alternatively, existing institutions could be strengthened through Memoranda of Understanding (MoUs), shared technical infrastructure, and joint task forces.

E. Looking Forward: Reform and Capacity Building

India must reimagine its antitrust institutions for the digital age. First, the Competition Act should be amended to include data dominance, algorithmic manipulation, and behavioral lock-in as indicators of abusive conduct. Second, the CCI must be equipped with technical expertise in data science, AI, and behavioral economics. Third, procedural reforms—such as fast-track investigations for digital platforms and interim relief powers—must be institutionalized to ensure timely enforcement.

Public-private partnerships could also play a role in enhancing regulatory capacity. For instance, sandboxes and testbeds could allow regulators to experiment with real-time audits of algorithms or privacy dashboards.⁴⁹ Without such reforms, India risks becoming a passive regulatory jurisdiction, unable to check the concentrated power of global tech firms.

6. Global Innovations in Regulating Digital Dominance: Comparative Lessons from the EU, US & UK

As digital platforms attain systemic importance across jurisdictions, several advanced economies have shifted toward proactive regulatory regimes that address dominance beyond traditional antitrust frameworks. This shift is particularly evident in the European Union, United Kingdom, and the United States—jurisdictions that have moved toward preemptive intervention, data governance obligations, and platform-specific behavioral rules. In contrast to India's largely reactive enforcement model, these frameworks offer instructive lessons in regulatory design, institutional architecture, and legal theory for controlling digital dominance and mitigating entry barriers.

A. The European Union: The Digital Markets Act and Beyond

⁴⁸ Gopal Krishna & Varun Srivastava, Designing a Digital Competition Regulator for India, 18 NUJS L. Rev. (2024) (forthcoming).

⁴⁹ OECD, Regulating Algorithms in Digital Markets 18–20 (2021), <https://www.oecd.org>.

The European Union (EU) stands at the forefront of digital antitrust reform. The **Digital Markets Act (DMA)**, adopted in 2022, marks a watershed moment by transitioning from ex-post enforcement under Article 102 TFEU to ex-ante regulation of “gatekeepers.”⁵⁰ The DMA identifies gatekeepers based on criteria such as turnover, user base, and entrenched intermediation power. It then imposes binding obligations, including:

- Prohibition of self-preferencing in ranking or display;
- Restrictions on combining personal data across services without consent;
- Obligations to ensure interoperability with third-party services;
- Non-discriminatory access for business users to data generated on platforms.⁵¹

These rules target structural entry barriers—such as lock-in, data silos, and default control—by directly addressing the platform’s market architecture. Importantly, these obligations are enforceable regardless of whether harm has materialized, thereby overcoming the evidentiary delays associated with ex-post enforcement.

In parallel, EU competition authorities continue to develop jurisprudence under Article 102 TFEU. Cases such as *Google Search (Shopping)* and *Google Android* have laid down precedents in addressing algorithmic bias, bundling, and exclusivity agreements.⁵² Furthermore, the *Meta v. Bundeskartellamt* case introduced the possibility of integrating data protection norms into competition law when excessive data processing exploits users and forecloses competition.⁵³

B. The United Kingdom: The Digital Markets Unit and Code-Based Regulation

Post-Brexit, the United Kingdom has charted its own regulatory course with the establishment of the **Digital Markets Unit (DMU)** under the Competition and Markets Authority (CMA). Although not yet fully empowered by legislation, the DMU is envisioned to operate as a specialist regulator for “Strategic Market Status” (SMS) firms.⁵⁴

⁵⁰ Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 Sept. 2022 on Contestable and Fair Markets in the Digital Sector (Digital Markets Act), 2022 O.J. (L 265) 1.

⁵¹ Case AT.39740, *Google Search (Shopping)*, Eur. Comm’n Dec. 2017; Case AT.40099, *Google Android*, Eur. Comm’n July 2018.

⁵² Case C-252/21, *Meta Platforms Inc. v. Bundeskartellamt*, 2023 E.C.R.

⁵³ UK Competition & Markets Authority, *A New Pro-Competition Regime for Digital Markets: Advice to Government* (2021), <https://www.gov.uk>.

⁵⁴ UK CMA, *Online Platforms and Digital Advertising Market Study Final Report* (2020), <https://www.gov.uk>.

The UK model emphasizes:

- Tailored **Codes of Conduct** for SMS firms;
- Powers to impose structural or behavioral remedies;
- Duty of cooperation on designated firms;
- Algorithmic auditing and data mobility requirements.⁵⁵

A core innovation is the proposed “participative regulation” model where stakeholders—including affected businesses and consumers—are involved in co-developing rules of conduct. This enhances transparency, reduces information asymmetry, and allows context-sensitive interventions.

UK regulators have also adopted a dynamic market definition approach. The **Online Platforms and Digital Advertising Market Study** (2020) by the CMA proposed the concept of “ecosystem power,” acknowledging how firms like Google and Facebook entrench dominance across interlinked services through default settings, user data sharing, and bundling.⁵⁶

C. The United States: Revival of Antitrust through Structural Separation and Litigation

In the United States, the approach to regulating digital dominance has largely been adversarial, rooted in the revival of traditional antitrust principles through litigation. The Federal Trade Commission (FTC) and Department of Justice (DOJ) have initiated landmark lawsuits against Meta (Facebook), Google, and Amazon, alleging exclusionary practices, monopolization, and unlawful acquisitions.⁵⁷

Although the U.S. lacks a dedicated ex-ante framework like the DMA, recent developments show a shift in legal thinking:

- **FTC v. Meta (2020)** sought to unwind acquisitions of Instagram and WhatsApp on grounds of “killer acquisitions”;
- **DOJ v. Google (2020 & 2023)** targeted exclusivity contracts with device manufacturers and browsers to maintain search dominance;

⁵⁵ Federal Trade Comm’n v. Meta Platforms Inc., No. 1:20-cv-03590 (D.D.C. 2020); United States v. Google LLC, No. 1:20-cv-03010 (D.D.C. 2020); United States v. Google LLC, No. 1:23-cv-00108 (E.D. Va. 2023).

⁵⁶ Lina Khan, The Separation of Platforms and Commerce, 119 Colum. L. Rev. 973, 1011–16 (2019).

⁵⁷ Ministry of Corporate Affairs, Report of the Committee on Digital Competition Law (2024), <https://www.mca.gov.in>.

- A growing emphasis on structural remedies and divestitures, particularly where behavioral remedies have proven insufficient.⁵⁸

The FTC, under Chair Lina Khan, has also expanded its interpretative framework to include harms to innovation, data monopolization, and attention manipulation.⁵⁹ These cases indicate a jurisprudential pivot toward dynamic competition, where long-term innovation and consumer choice—not short-term price—drive antitrust analysis.

Yet, the U.S. model faces challenges in legislative stagnation. Despite bipartisan interest, proposals such as the **American Innovation and Choice Online Act** and the **Open App Markets Act** have yet to be enacted. This places the burden of reform primarily on judicial interpretation, which may lack the speed and specificity required for fast-evolving digital markets.

D. Comparative Insights for India

Each jurisdiction offers distinctive takeaways for India:

- **From the EU**, India can learn the utility of a “blacklist” model—predefined do’s and don’ts for dominant platforms—which enhances legal certainty and reduces enforcement delay. The DMA’s interoperability and data-sharing mandates can particularly benefit Indian start-ups seeking fair platform access.
- **From the UK**, the model of participatory rule-making and sector-specific digital regulators could be adapted within India’s federal and multi-regulator environment, particularly through specialized benches within the CCI or new digital divisions.
- **From the US**, the use of litigation and structural remedies can inform India’s evolving merger control jurisprudence, especially in dealing with “killer acquisitions” and conglomerate power. Additionally, the U.S. emphasis on innovation harms provides a framework for redefining consumer welfare in digital contexts.

India’s proposed ex-ante framework for Systemically Significant Digital Enterprises (SSDEs), as recommended by the CDCL, echoes several of these global reforms.⁶⁰ However, its

⁵⁸ Competition Act, 2002, § 4(2), No. 12, Acts of Parliament, 2003 (India); see also Anush Ganesh, *Pricing Practices in Digital Markets: An Abuse of Dominance Approach* 179–85 (Ph.D. thesis, Univ. of East Anglia, 2023).

⁵⁹ Filippo Lancieri & Patricia Sakowski, *Competition in Digital Markets: A Review of Expert Reports*, Stigler Ctr. Working Paper No. 303, at 39–41 (2020), <https://www.econstor.eu/handle/10419/262705>.

⁶⁰ Ministry of Corporate Affairs, *Report of the Committee on Digital Competition Law* (2024), <https://www.mca.gov.in>.

effectiveness will depend on implementation fidelity, institutional capacity, and the ability to enforce horizontal rules across sectors.

7. Conclusion, Recommendations, and the Way Forward

A. Conclusion

The digital economy has fundamentally altered the nature of competition, dominance, and consumer harm. Traditional antitrust frameworks—anchored in concepts of price, output, and market share—are ill-suited to address the complex and evolving challenges posed by digital platforms. Dominance in the digital age is built not just on size, but on network effects, control over data, user lock-in, and cross-market integration. Abuse is often subtle, embedded in design choices, consent structures, and algorithmic outcomes that distort user behavior and restrict entry.

In India, while the Competition Commission has shown initiative in investigating conduct by major digital platforms, its legal toolkit remains largely ex-post and reactive. The absence of express recognition of digital entry barriers—such as data accumulation, default control, self-preferencing, and platform bundling—limits the efficacy of enforcement. Moreover, institutional silos and a lack of inter-agency cooperation have contributed to regulatory fragmentation.

The insights derived from comparative legal regimes in the EU, UK, and US show a clear global pivot toward ex-ante digital competition regulation. These jurisdictions have begun moving beyond case-by-case adjudication toward structural rules, sector-specific codes, and participatory regulatory models. India must similarly reimagine its competition law and enforcement architecture for a digital-first future.

B. Key Recommendations

1. Statutory Amendments to the Competition Act, 2002

There is a pressing need to amend Section 4 of the Competition Act to:

- Include **data dominance, algorithmic opacity, default control, and ecosystem integration** as explicit indicators of abuse.
- Define **non-price consumer harm** such as privacy degradation, exploitative consent structures, and attention manipulation.

- Recognize **self-preferencing**, **cross-platform leveraging**, and **dark patterns** as potentially abusive practices by dominant platforms.

Such clarifications would empower the CCI to assess digital conduct through a modernized lens aligned with the actual market dynamics of platform economies.⁶¹

2. Establishment of a Digital Markets Division within CCI

The complexity and interdisciplinarity of digital markets necessitate specialized institutional capacity. A **Digital Markets Division** within the CCI should be created, comprising experts in AI, data science, behavioral economics, and human-computer interaction. This body could:

- Analyze algorithms and market structures;
- Proactively monitor conduct by Systemically Significant Digital Enterprises (SSDEs);
- Coordinate with sectoral regulators and international authorities.

This internal restructuring can significantly enhance the CCI's ability to act swiftly and decisively in high-stakes digital cases.⁶²

3. Adoption of an Ex-Ante Framework for SSDEs

Drawing from the CDCL's 2024 report, India should introduce an **ex-ante regulatory regime** for platforms designated as SSDEs, based on user scale, cross-market integration, and intermediation power. Obligations could include:

- Platform neutrality;
- Non-discrimination in access to data and infrastructure;
- Mandatory interoperability and data portability;
- Restrictions on default bundling and dark pattern design.

This approach would balance innovation incentives with public interest goals, ensuring that competition and consumer choice are preserved.⁵³

4. Institutional Synergy through MoUs and Joint Regulation

⁶¹ OECD, *Enhancing Institutional Coherence in Regulating Digital Platforms* 16–20 (2023), <https://www.oecd.org>.

⁶² UK Competition & Markets Authority, *A New Pro-Competition Regime for Digital Markets* 2021, <https://www.gov.uk>.

To overcome regulatory silos, a **Digital Markets Coordination Forum** should be established between the CCI, Data Protection Board, MeitY, TRAI, and RBI. This forum could facilitate:

- Joint investigations and referrals;
- Coordinated rulemaking on overlapping issues (e.g., data monopolization);
- Development of shared technological infrastructure for platform audits.

Such integration would reduce duplication, improve regulatory clarity, and prevent jurisdictional forum shopping by dominant players.⁵⁴

5. Public Transparency and Stakeholder Involvement

Transparency must underpin any effective regulatory regime. Regulators should mandate periodic disclosures from digital gatekeepers on:

- Algorithmic changes;
- Data sharing practices;
- Content moderation policies;
- Impact assessments of design choices.

In parallel, **public consultation mechanisms** must be institutionalized, allowing stakeholders—including smaller businesses, consumer groups, civil society, and academia—to provide input on proposed regulations and enforcement priorities.⁵⁵

C. The Way Forward

India stands at a regulatory crossroads. The stakes of inaction are high: unchecked platform dominance threatens to stifle innovation, exploit consumers, and distort democratic discourse. Yet, the opportunity is equally compelling—to pioneer a globally relevant regulatory model that addresses the nuances of digital dominance without stifling innovation.

This will require bold statutory reform, institutional innovation, and global cooperation. The creation of a unified digital competition framework, grounded in constitutional values of fairness, choice, and transparency, can make India a leader in the responsible governance of the digital economy.

As platforms become de facto infrastructure, regulating their conduct is not merely an economic concern—it is a governance imperative. The moment calls not just for rethinking

dominance, but for reimagining the very foundations of competition law in the age of the digital market.

