



## Cci's Market Study On Artificial Intelligence And Competition: A Critical Appraisal

### Article History:

#### Name of Author:

Dr. Mohamad Ayub Dar<sup>1</sup>, Dr. Rafique Khan<sup>2</sup>

#### Affiliation:

<sup>1</sup>Assistant Professor, School of Law, UPES,  
Email ID : [ayub.dar@ddn.upes.ac.in](mailto:ayub.dar@ddn.upes.ac.in) ,  
ORCID 0000-0002-5175-2371.

<sup>2</sup>Assistant Professor, School of Law, UPES,  
Email ID : [rafique.khan@ddn.upes.ac.in](mailto:rafique.khan@ddn.upes.ac.in),  
ORCID 0000-0003-1614-3711

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### Abstract

This article offers a critical appraisal of the Competition Commission of India's Market Study on Artificial Intelligence and Competition (2025), commissioned to examine the evolving interface between AI technologies and competition law in India. While the study represents a significant institutional effort to map the Indian AI ecosystem and to anticipate emerging competition concerns, this appraisal argues that its analytical ambitions remain constrained by an advocacy-oriented and largely technocratic framing. The article evaluates the study across four dimensions: conceptual framing, methodology, competition analysis, and regulatory recommendations. It acknowledges the study's strengths in conceptualising AI as a multi-layered ecosystem encompassing data, compute, algorithms, and applications, and in identifying risks related to algorithmic collusion, price discrimination, entry barriers, and ecosystem consolidation. However, it highlights key limitations, including an over-reliance on perception-based stakeholder inputs, the absence of rigorous market power analysis, and a cautious stance towards structural dominance and Big Tech power. The appraisal further contends that the study under-theorises AI as an infrastructural and epistemic force capable of entrenching durable asymmetries within markets and across global value chains. By situating the CCI's study within comparative antitrust and AI governance debates, the article argues for a more empirically grounded, normatively explicit, and forward-looking competition policy approach. It concludes that while the study is a valuable first step in India's engagement with AI-driven market power, it should be treated as a foundation for deeper inquiry rather than a settled regulatory blueprint.

**Keywords:** Artificial Intelligence; Competition Law; Algorithmic Collusion; Digital Markets; Market Power; Indian Antitrust Policy

### Introduction

The Market Study on Artificial Intelligence and Competition (2025), commissioned by the Competition Commission of India (CCI) and conducted by the Management Development Institute (MDI), represents one of the most comprehensive institutional efforts to map the interaction between artificial intelligence (AI) and competition law in the Indian context. The study is positioned as an advocacy-oriented exercise rather than an enforcement document, and it seeks to understand how AI technologies reshape market structures, competitive conduct, and regulatory responses. Given the rapid diffusion of AI across sectors and the increasing concern that algorithmic systems may entrench market power, facilitate collusion, or

exacerbate entry barriers, the study is both timely and normatively significant. This critical appraisal evaluates the study across four broad dimensions: conceptual framing, methodology and empirical design, analytical depth in competition assessment, and regulatory and policy recommendations. While the study succeeds in providing a valuable descriptive mapping of the AI ecosystem in India and foregrounds key competition concerns, it also exhibits important limitations. These include an over-reliance on perception-based stakeholder inputs, insufficient engagement with structural political economy questions, a cautious—sometimes overly deferential—stance towards Big Tech power, and an under-theorisation of AI as an infrastructural and epistemic force rather than merely a

technological input. The appraisal situates the study within global antitrust and AI governance debates and assesses its contribution to Indian competition jurisprudence.

### Conceptual Framing and Scope

A central strength of the study lies in its broad conceptualisation of AI as a “constellation of technologies” and as an emerging factor of production. By recognising AI not merely as a software tool but as a composite of data, compute, algorithms, and human capital, the study aligns with contemporary economic and regulatory scholarship. The articulation of the AI stack—ranging from data and infrastructure layers to foundation models, deployment, and governance—offers a clear analytical architecture for understanding value creation and control points in AI markets. However, the conceptual framing remains largely technocratic. AI is treated primarily as a productivity-enhancing input whose competitive risks arise incidentally through misuse or concentration, rather than as an infrastructural technology that actively restructures markets, incentives, and epistemic authority. The study does not sufficiently engage with critical literature that conceptualises AI as a form of infrastructural power capable of producing durable asymmetries between core and peripheral firms, or between Global North technology providers and Global South adopters. As a result, the framing underplays how AI systems may lock markets into particular technological trajectories, standards, and dependencies.

Moreover, while the study claims to examine both supply-side and demand-side dynamics, the analytical emphasis remains skewed towards supply-side concerns, particularly upstream concentration in data, cloud infrastructure, and foundation models. Demand-side harms—such as consumer manipulation, behavioural discrimination, and erosion of meaningful choice—are acknowledged but not theorised with sufficient depth. The absence of a consumer welfare theory adapted to algorithmic environments limits the normative clarity of the analysis.

### Methodology and Empirical Design

The study adopts a mixed-methods approach combining secondary data analysis with primary surveys, interviews, and stakeholder consultations. This methodological pluralism is appropriate given the complexity and opacity of AI markets. The use of semi-structured interviews with startups, Big Tech firms, investors, user industries, and legal experts allows the study to capture diverse perspectives and emerging concerns that may not yet be reflected in case law. Nevertheless, the empirical design raises several concerns.

First, the reliance on perception-based surveys introduces significant subjectivity. Findings on algorithmic collusion, price discrimination, and entry barriers are often framed in terms of what respondents believe may occur rather than what has been empirically observed or economically demonstrated. While this is understandable in a nascent regulatory field, the study does not sufficiently distinguish between speculative risks and demonstrated competitive harm.

Second, the sampling frame, though broad, is uneven. Startups and user industries are relatively well represented, but the number of respondents from large AI platform providers and hyperscalers is limited. This asymmetry may bias findings towards a narrative of opportunity and innovation while underplaying strategic conduct by dominant firms. The study explicitly assumes that information provided by stakeholders is not misleading, an assumption that is problematic given the strong incentives for strategic self-presentation by powerful market actors.

Third, the study does not employ rigorous econometric or market power analysis. Measures such as concentration ratios, entry and exit dynamics, profit persistence, or switching costs are discussed descriptively rather than analysed quantitatively. This limits the study's ability to move from ecosystem mapping to competition assessment in the strict antitrust sense. As a result, the study remains closer to a policy white paper than a market investigation capable of supporting enforcement action.

### Analysis of the AI Ecosystem and Market Structure

The study's layered analysis of the AI ecosystem is one of its most valuable contributions. By disaggregating AI markets into data, infrastructure, development, foundation models, and application layers, it highlights how competitive advantages may accumulate vertically. The identification of Big Tech firms' dominance in data aggregation, cloud computing, GPUs, and foundation models is particularly important for Indian competition policy, which has historically focused on downstream conduct rather than upstream control of essential inputs.

However, the study stops short of fully analysing the implications of vertical integration and cross-layer leverage. While it notes that firms operating across multiple layers may enjoy competitive advantages, it does not sufficiently interrogate whether such advantages amount to structural dominance or warrant ex ante regulatory intervention. The possibility that control over foundation models and cloud infrastructure could function as a bottleneck—analogue to essential facilities—is acknowledged but not developed analytically.

The discussion of open-source models is similarly ambivalent. The study correctly notes that open-source AI frameworks may lower entry barriers and foster innovation. Yet it does not engage with the growing evidence that open-source ecosystems are often strategically controlled by large firms through governance structures, cloud dependencies, and compute constraints. The assumption that open source equates to competitive neutrality risks obscuring new forms of indirect control.

#### Competition Concerns: Collusion, Pricing, and Entry Barriers

The study's treatment of algorithmic collusion is informed by leading global scholarship and OECD work. The typology of monitoring, parallel, signalling, and self-learning algorithms provides a useful framework for understanding how tacit coordination may arise without explicit agreement. The recognition that black-box algorithms complicate detection and attribution is particularly salient for enforcement agencies.

Yet the analysis remains largely hypothetical. The study does not identify concrete Indian market cases where algorithmic collusion has plausibly occurred, nor does it explore sector-specific vulnerabilities in depth. The absence of illustrative case studies weakens the practical relevance of the discussion. Moreover, the study does not sufficiently address the evidentiary and doctrinal challenges that Indian competition law would face in attributing liability for autonomous algorithmic outcomes.

Similarly, the discussion of AI-driven price discrimination acknowledges risks of consumer exploitation and predation but does not integrate these concerns into a coherent theory of harm. Price discrimination is treated as potentially anti-competitive primarily when it excludes rivals, rather than as a broader concern for fairness, transparency, and market contestability. This reflects a conservative competition law orientation that prioritises producer rivalry over consumer autonomy.

On entry barriers, the study correctly identifies data access, compute costs, talent scarcity, and cloud dependence as key constraints. However, it tends to frame these barriers as transitional challenges that government initiatives and market forces will gradually resolve. This optimism underestimates the cumulative and self-reinforcing nature of data and compute advantages, particularly when combined with global scale and capital intensity.

#### Mergers, Acquisitions, and Ecosystem Consolidation

The study briefly addresses mergers, acquisitions, and

partnerships as strategies for expansion across the AI stack. While it acknowledges that such strategies may raise competition concerns, the analysis remains underdeveloped. There is limited engagement with the phenomenon of "killer acquisitions," data-driven conglomerate effects, or serial acquisitions of AI startups by dominant platforms.

Given the introduction of deal-value thresholds under the Competition (Amendment) Act, 2023, the study could have provided more concrete guidance on how AI-related transactions should be assessed. In particular, the competitive significance of data acquisition, talent absorption, and model control warrants deeper scrutiny. The absence of a robust merger control framework tailored to AI markets is a missed opportunity.

#### Comparative and Regulatory Analysis

The comparative survey of regulatory approaches across jurisdictions is informative but largely descriptive. The study summarises developments in the United States, European Union, United Kingdom, China, and others, yet it does not critically assess their underlying regulatory philosophies or outcomes. The EU's shift towards ex ante regulation through the Digital Markets Act and AI Act, for instance, is presented without evaluating its implications for innovation, enforcement capacity, or global regulatory convergence.

In the Indian context, the study places significant faith in the technology-neutral nature of competition law and recent legislative amendments. While these tools are important, the study does not adequately address whether ex post enforcement alone is sufficient to address fast-moving, data-driven markets. The interaction between competition law, data protection, and sectoral regulation is acknowledged but not operationalised.

#### Policy Recommendations and Action Plan

The study's action plan emphasises self-audits, transparency, advocacy, capacity building, and inter-regulatory coordination. These recommendations are pragmatic and institutionally feasible. The emphasis on building technical expertise within the CCI and fostering international cooperation is particularly welcome.

However, the reliance on self-regulation and voluntary compliance mechanisms appears overly optimistic. Self-audits, while useful, are unlikely to constrain dominant firms absent credible enforcement threats. The study stops short of recommending structural remedies, data-sharing mandates, or ex ante obligations for systemically significant AI providers. This restraint reflects an advocacy-oriented approach but limits the study's transformative potential.

**How to cite this article:** Dr. Mohamad Ayub Dar, Dr. Rafique Khan, Cci's Market Study On Artificial Intelligence And Competition: A Critical Appraisal, *J Int Commer Law Technol.* 2025;6(1): 1662-1665.. Normative and Theoretical Gaps

A major limitation of the study is its reluctance to engage with normative questions beyond efficiency and innovation. Issues of epistemic power, democratic accountability, and digital sovereignty are largely absent. The study treats AI governance as a matter of risk mitigation rather than structural justice.

Furthermore, the study does not sufficiently interrogate India's position in global AI value chains. The dependence on foreign foundation models, cloud infrastructure, and chips raises competition concerns that extend beyond domestic market conduct. These geopolitical and developmental dimensions merit deeper analysis within competition policy discourse.

#### Bottomline

The CCI's Market Study on Artificial Intelligence and Competition is a significant and timely contribution to Indian competition policy. Its detailed mapping of the AI ecosystem and identification of emerging competition concerns provide a valuable foundation for future enforcement and regulation. However, the study remains cautious in its analytical ambitions. Its reliance on perception-based evidence, limited engagement with structural power, and preference for soft regulatory tools constrain its capacity to fully confront the competitive challenges posed by AI.

For future work, a shift towards more empirical market analysis, sector-specific case studies, and a willingness to consider ex ante regulatory interventions would strengthen the CCI's approach. As AI increasingly functions as market infrastructure rather than a discrete technology, competition law must evolve accordingly. The study is an important first step, but it should be viewed as the beginning rather than the culmination of India's engagement with AI-driven market power.

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