

THE ALGORITHMIC PRICING LACUNAE: CCI'S 2025 REGULATORY FRAMEWORK

ABSTRACT

AI-driven pricing models in India's digital markets create significant anti-trust challenges that existing regulations cannot address effectively. This study examines how algorithmic pricing systems enable predatory pricing and market manipulation while operating beyond traditional legal frameworks. Companies use AI algorithms to collect consumer data without consent and set prices through opaque mechanisms, potentially violating competition laws. The CCI's 2025 Cost Determination Regulations introduce improved cost analysis methods but lack specific provisions for algorithmic pricing used by platforms like Swiggy, Zomato, and ride-hailing services. The research compares India's approach with the European Union's AI Act and the UK's Competition and Markets Authority enforcement actions, revealing India's reactive strategy as insufficient. Current regulations focus on traditional cost structures while ignoring AI-specific challenges like real-time price adjustments and data-driven market dominance. The study proposes solutions including algorithmic governance frameworks, monitoring systems, and sector-specific compliance requirements. The research recommends proactive regulatory intervention through expert consultation, adaptive guidelines, and comprehensive frameworks that distinguish legitimate AI competition from anti-competitive practices. India needs immediate legislative action to address these regulatory gaps while supporting technological innovation and protecting market competition in the digital economy.

KEYWORDS: Predatory pricing, Algorithmic pricing, CCI (Determination of Cost of Production) Regulations, 2025, Competition Law

I. INTRODUCTION

The increasing adoption of artificial intelligence (AI) and algorithmic pricing models in digital markets has created significant regulatory challenges that the current competition law frameworks struggle to address. With the Competition Commission of India's notification on the CCI (Determination of Cost of Production) Regulations, 2025⁷³ repealing the 2009 regulations⁷⁴, an effort was made to regulate the pricing strategies employed by companies, however, AI generated costs have been overlooked. These updated rules aim to curb the abuse of dominant market

⁷³ Competition Commission of India, *Draft Competition Commission of India (Determination of Cost of Production) Regulations, 2025* (July 2025)

⁷⁴ Competition Commission of India, *Legal Framework: Regulations*

positions by ensuring greater transparency in cost assessments. The CCI Regulations, 2025,⁷⁵ which came into effect on May 7, 2025, represent a significant evolution from the 2009 framework, introducing modern economic principles and methodologies that have profound implications for companies employing artificial intelligence (AI) and algorithmic pricing models. This article aims to understand the impact of these regulations on AI-driven pricing models and examine the legal gaps that emerge from the absence of specific provisions governing algorithmic pricing in both the existing competition law framework and the newly introduced regulations.

While the CCI has been gauging predatory pricing⁷⁶ and usage of AI models under the realm of competitive practices, a critical legal vacuum exists in the current regulatory framework. The overlapping anti-trust issues have not been addressed, and notably, the new regulations do not specifically address AI-driven pricing methodologies either. The regulatory body has taken an ex-post approach to AI development and no pre-emptive action has been taken, i.e., they are taking the wait-and-watch approach. Multiple investigations were launched targeting major tech companies including Amazon⁷⁷, Flipkart, Swiggy, Zomato⁷⁸, and other digital platforms. This marked a significant shift in the CCI's regulatory approach, moving beyond traditional competition violations to focus specifically on digital market dynamics and emerging AI-related antitrust concerns. The investigations signalled the regulator's recognition that digital ecosystems require specialised oversight due to their unique competitive structures, data-driven business models, and potential for algorithmic manipulation of market outcomes.

The concept of predatory pricing⁷⁹ refers to the practice of reducing prices as per the market trends in order to attract more consumers and hence establishing a monopoly in the specific sector. The current scenario worldwide has seen an increase in the use of predatory pricing along with the usage of algorithms and AI to enable their operations⁸⁰. This has been exponentially used to generate large profits and reduce human derived costing. The AI models study market trends and competition in the market to give out pricing standards that influence consumer behaviour. The

⁷⁵ Competition Commission of India, *Draft Competition Commission of India (Determination of Cost of Production) Regulations, 2025* (July 2025)

⁷⁶ Naufal Ghifari, Tarsisius Murwaji and Nun Harriet, 'LEGAL CONSTRUCTION OF RULE OF REASON APPROACH TO PREDATORY PRICING IN DIGITAL BUSINESS' (2025) 7 Awang Long Law Review 256.

⁷⁷ 'An Empirical Analysis of Algorithmic Pricing on Amazon Marketplace | Proceedings of the 25th International Conference on World Wide Web' <<https://dl.acm.org/doi/10.1145/2872427.2883089>> accessed 25 July 2025.

⁷⁸ Competition Commission of India, National Restaurant Association of India Ltd *Vs.* Zomato Limited , *Case No. 16 of 2021* (Order, 1 January 2022) <https://www.cci.gov.in/images/antitrustorder/en/1620211652180990.pdf>

⁷⁹ Shubhy Gupta, 'Advanced AI-Driven Dynamic Pricing Models in Marketing: Real-World Applications' (Social Science Research Network, 27 March 2024) <<https://papers.ssrn.com/abstract=4958529>> accessed 25 July 2025.

⁸⁰ 'Competition Authorities Zero in on Antitrust Risks of Algorithmic Pricing' <<https://globalcompetitionreview.com/guide/digital-markets-guide/fourth-edition/article/competition-authorities-zero-in-antitrust-risks-of-algorithmic-pricing>>.

CCI has attempted to examine these concerns however, specific mention to AI related anti-trust issues has not been made, hence creating a legal vacuum allowing for scrutiny and ambiguity. This regulatory shift occurs at a critical juncture when AI-driven pricing has become ubiquitous across industries, from e-commerce platforms to ride-sharing services, and when competition authorities worldwide are grappling with the antitrust implications of automated pricing systems. The new regulations, while primarily focused on predatory pricing assessments, create a more sophisticated framework for cost analysis that directly impacts how AI-driven pricing strategies are evaluated under competition law.⁸¹ The main concerns that algorithmic models pose are as follows:

1. Companies collect data through human-designed models to study consumer behaviour, which enables the machine learning processes. This method involves gathering and storing data collectively to make market assessments. This practice raises significant privacy concerns, as companies may adopt AI systems to refine their operations whilst potentially avoiding liability.
2. The costing systems given out by the models is ambiguous since the rationale for arriving at such a conclusion is unclear and accounting standards are not met. This creates an exploitative and exclusionary abusive practice in the market that results from data-driven networks.
3. The absence of user consent and the data collected by AI models for algorithmic determination places companies using these AI-driven models in a dominant position, which potentially violates Section 4 of the Competition Act (abuse of dominant position)⁸². AI driven pricing models can, in turn lead to multiple ethics violations due to data breaches and profit driven pricing models, stemming from the non-consensual usage of consumer data. The customer trust is to be restored through ethical practices and considerations, while eliminating social inequalities particularly while being used in essential industries⁸³.
4. The real time AI integration for pricing models to not get stagnant is of prime importance, however, it relies on data received and updated in real time. This makes the process more fast paced and difficult to proactively regulate, while also tracking the changes made to the

⁸¹ The Competition Act 2002, No 12 of 2003, *Gazette of India*, Extraordinary, Part II, Section 1 (13 January 2003)

⁸² The Competition Act 2002, No 12 of 2003, *Gazette of India*, Extraordinary, Part II, Section 1 (13 January 2003)

⁸³(PDF) Artificial Intelligence and The Unfairness of Pricing Strategies', , ResearchGate (2025) <https://www.researchgate.net/publication/390293553_Artificial_Intelligence_and_The_Unfairness_of_Pricing_Strategies>.

models. The dynamic nature of the market also requires changes in the factors relevant for pricing, hence, accounting for each change would be strenuous.⁸⁴

The recent trends have been examined by the CCI wherein the Management Development Instituted Society conducted studies in the market to analyse the aspects of AI and the upcoming concerns causing gaps in the law. Consultations with relevant parties have been made and experienced professionals in the field have reported their findings for understanding implementation methods further.

II. THE CCI (DETERMINATION OF COST OF PRODUCTION) REGULATIONS, 2025

Sr No.	Provisions	2009 Regulations	2025 Regulations
1.	Short title & commencement ⁸⁵	Called "Determination of Cost of Production Regulations, 2009", effective from publication in Gazette (20 Aug 2009)	Remains to be notified.
2.	Regulation 2 (definitions) ⁸⁶	Defined AVC, total cost, variable cost, avoidable cost, average avoidable cost, LRAIC, ATC, marginal cost.	Definitions largely carry over, but: update reference to Companies Act 2013 "total cost" now explicitly includes depreciation and excludes finance overheads LRAIC definition is refined to include sunk and common costs traceable to the product, especially for multi-product firms.

⁸⁴ Shubhy Gupta, 'Advanced AI-Driven Dynamic Pricing Models in Marketing: Real-World Applications' (Social Science Research Network, 27 March 2024)

⁸⁵ Competition Commission of India, *Draft Competition Commission of India (Determination of Cost of Production) Regulations, 2025* (July 2025)

⁸⁶ Competition Commission of India, *Draft Competition Commission of India (Determination of Cost of Production) Regulations, 2025* (July 2025)

3.	Regulation 3 (Cost determination principle) ⁸⁷	“Cost” under Section 4 Explanation is AVC as proxy for marginal cost; Commission may consider other cost measures in writing	AVC remains the default proxy; retains discretion to substitute ATC, avoidable cost, or LRAIC with written justification. Emphasises flexibility based on industry/market/technology
4.	Regulation 4 (experts and dispute resolution mechanism) ⁸⁸	DG or CCI may rely on experts; no explicit provisions for enterprise-requested experts.	Formalises the process: enterprises can now request appointment of experts (at their cost); CCI may appoint its own experts after review
5.	Regulation 5 (confidentiality) ⁸⁹	Any request for confidentiality of the documents submitted to the Commission or the Director General, as the case may be, shall be duly considered in accordance with the procedure laid down in the Competition Commission of India (General) Regulations, 2009.	No change
6.	Regulation 6 (power to remove difficulties) ⁹⁰	In a situation not provided for in the Act, rules or these regulations or in the matter of their interpretation, the procedure for determining the cost shall be determined by the Commission.	No change

⁸⁷ Competition Commission of India, *Draft Competition Commission of India (Determination of Cost of Production) Regulations, 2025* (July 2025)

⁸⁸ Competition Commission of India, *Draft Competition Commission of India (Determination of Cost of Production) Regulations, 2025* (July 2025)

⁸⁹ Competition Commission of India, *Draft Competition Commission of India (Determination of Cost of Production) Regulations, 2025* (July 2025)

⁹⁰ Competition Commission of India, *Draft Competition Commission of India (Determination of Cost of Production) Regulations, 2025* (July 2025)

III. IMPACT OF THE REGULATIONS ON AI- DRIVEN PRICING MODELS

The wait and watch strategy employed by the competition commission attempts to prioritise innovation while maintaining regulatory oversight, however, the predatory pricing regulations do not take into consideration the growing cases of predatory pricing, usage of dark patterns and non-consensual use of consumer data. This puts at risk multiple organisations that are also considered as consumers in some instances.

In the present circumstance, the cost regulations of 2025⁹¹ merely amend some definitions under its provisions, and while that may seem like a minimal change, it has far-reaching implications. This is major especially to those companies that use machine learning programmes to strategise the cost of products. The benchmark has shifted from the volatile and everchanging market value to average variable cost (AVC) that explicitly includes the depreciation costs. This is mentioned as an inclusion under the definition of 'cost' under regulation 2 (c)⁹². The concept of AVC indicates that any company that has a pricing below the AVC is incurring losses for every unit it sells. In relation to AI- driven pricing, the cost metrics would remain stagnant until explicitly changed and outdated prices could be produced. The company's pricing may fall below the AVC sacrificing its short term revenue for long term profits. Longer term assessments i.e. Long- run average incremental costs (LRAIC) now include both variable and fixed costs as well as sunk costs tied to a product or a service. The LRAIC violation would showcase that there is an intent to price predatorily. The rationale for the same is in context of the As-efficient competitor (AEC) test. It is when an AI-driven pricing model produces prices below the LRAIC, when it would generally be irrational for an equally efficient competition to do so. The cost framework now requires accounting standards to take into consideration, the full cycle of the digital operations and include any algorithmic development, data ingestion, infrastructure, compliance, and monitoring expenses. The above stated is to factor into changes made to the model, and a valid rationale for the same. This makes it highly relevant to firms using AI-based pricing systems. There is an increased level of compliance requirements and burdens under this new regime, in an attempt to eliminate any possibility of predatory pricing through algorithmic models. Companies are required to implement real-time cost tracking systems that monitor algorithmic pricing and also give out a proper rationale for the same to CCI. The firms are now also expected to maintain proper documentation that includes

⁹¹ Competition Commission of India, *Draft Competition Commission of India (Determination of Cost of Production) Regulations, 2025* (July 2025)

⁹² Competition Commission of India, *Draft Competition Commission of India (Determination of Cost of Production) Regulations, 2025* (July 2025)

the logic for the algorithm, training data of the model, and decision making thresholds. Performance output metrics as per the guidelines are set and companies are to ensure that their pricing is to adhere to the same.⁹³

Sector-specific implications are especially pronounced in India's quick-commerce and ride-hailing industries, where AI pricing is widespread. Platforms like Blinkit, Swiggy Instamart and Zepto are under formal antitrust scrutiny by CCI amid allegations of deep discounting and predatory pricing, particularly targeting small retailers. The platforms solely rely on pricing models to coordinate their dynamic pricing and discounting according to consumer behaviour, shifts in the market and competitive prices by other firms. This often tends to attract more consumers, considering a lot of staple goods are sold below conventional cost benchmarks. The most recent example is that of Ola's recent ride-hailing operation, and other ride hailing companies, that change price according to peak hours/demand and customer loyalty. There have also been incidents reported where the change in the model of the phone showcases a varied price, that may be related to the issue at hand.⁹⁴ This move showcases the use of AI-driven pricing models to manipulate customers. Taking the demand aspect, the customers would then attempt to travel at hours that have less demand than in peak hours. To regulate the same, at the current stage, any deviation from the new regime, pricing below AVC or improper attribution of cost savings could trigger enforcement actions against the company.

AI- driven platforms must now carefully select which benchmark applies to their pricing models in order to justify the choice with documented, case-specific reasoning. For instance, a dynamic pricing system in ride-sharing may default to AVC for short-term fare adjustments, but switch to LRAIC when allocating long-term infrastructure or fleet maintenance costs. This flexibility, while tailored, demands that firms not only build robust cost frameworks but also retain expert reports to support unconventional or mixed cost methodologies, a requirement explicitly endorsed in Regulation 4⁹⁵. In effect, AI-powered firms must invest in both technical accounting infrastructure and expert advisory resources to withstand regulatory scrutiny.

Moreover, the new framework's sector-agnostic orientation enables the CCI to apply its scrutiny uniformly across industries, whether e-commerce, fin-tech, SaaS, or logistics. For companies leveraging AI for pricing, this translates to preparing for cross-sector benchmarking. Platforms like quick-commerce services; Blinkit, Instamart, Zepto, must be able to benchmark their AI-set

⁹³ Competition Commission of India, *General Statement on Draft Regulations* (July 2025)

⁹⁴ Competition Commission of India, *Samir Agarwal v ANI Technologies Pvt. Ltd, Case No 37 of 2018* (Order, 23 August 2021)

⁹⁵ Competition Commission of India, *Draft Competition Commission of India (Determination of Cost of Production) Regulations, 2025* (July 2025)

discounts not just against in-sector peers but also on cost models shaped by their technology stack, warehousing efficiencies, and last-mile logistics expenses. In regulated financial services, AI-based risk-driven pricing models will similarly be expected to justify their cost allocations using AVC or LRAIC, particularly when deploying sophisticated underwriting algorithms.⁹⁶ The need to align regulatory cost understanding with AI system economics pushes these firms toward integrated cost-and-analytics dashboards, capable of slicing cost data by machine-learning model, infrastructure usage, and business vertical, a significant shift from legacy, siloed accounting setups. The introduction of the 2025 cost regulations by the CCI signals a shift toward embedding algorithmic accountability within India's competition law framework. As companies increasingly rely on AI systems to set prices dynamically, the challenge is no longer just compliance with pricing thresholds, but also explaining how these AI systems make decisions based on cost data. Under the new framework, firms must not only track costs across algorithmic components such as data processing, cloud computing, and model training, but also demonstrate that pricing decisions are traceable to legitimate cost constructs like average variable cost or long-run average incremental cost.⁹⁷ This effectively raises the bar for AI deployments in pricing: systems must be auditable, regulators must be able to interrogate their decision logic, and companies must pre-emptively establish that AI-generated prices reflect market fairness rather than manipulation. In doing so, the regulations push AI-driven firms in India toward both economic and ethical transparency, while equipping the CCI with tools to scrutinise algorithmic pricing in a manner consistent with international trends in AI governance.

IV. GLOBAL PERSPECTIVE AND COMPARATIVE ANALYSIS

A. European union

The European union has proactively showcased their stance in addressing challenges that are posed by algorithmic pricing and potential anti-trust concerns it envisages. The European commission, in its efforts to adapt competition law to the digital era, has ensured that companies are unable to escape accountability for the actions of AI systems. The foundational principles that are underlined highlight algorithmic decision making and pricing models as an extension of corporate responsibility and conduct. The firms are expected to anticipate and prevent any anti-competitive practices that are outcomes of the AI models designed by them.

⁹⁶ Lavanya Garg, 'A CRITICAL ANALYSIS OF ALGORITHMIC PREDATION IN COMPETITION LAW IN INDIA' (2024) 14 *Alochana Journal* 2442 <https://alochana.org/wp-content/uploads/14-AJ2442.pdf>

⁹⁷ 'Explainable AI and Pricing Algorithms: A Case For Accountability in Pricing by Brahm Sareen :: SSRN'

The EU Artificial intelligence Act⁹⁸ has been proposed to establish higher standards of accountability for AI systems and especially those deployed for domains such as pricing. The opaque algorithmic prototype relied on by the companies makes it difficult to trace and ensure transparency. This enables tacit collusion or predatory pricing since the pricing involves monitoring the purchases made at various location, and the change in prices that attracts more consumers and teaching the model to adjust accordingly. The model would not have to be explicitly commanded to use pricing that is most effective it would read the data available and fix prices according to other companies receiving profits. Collusion can take place subtly without actual communication especially when it is a niche area.⁹⁹ In the context of Article 101 of the Treaty on the Functioning of the European Union (TFEU)¹⁰⁰ especially, algorithmic collusion, whether through explicit agreement or parallel conduct facilitated by data-driven tools, has attracted increasing scrutiny.¹⁰¹ EU's competition law addresses price discrimination in the form of abuse of dominance in market places, specifically when enterprises impose different conditions on transactions involving similar trading partners. Such practices fall under Article 102(c) TFEU¹⁰², when they create competitive disadvantages for certain market participants and consequently generate adverse effects on market competition. The proliferation of sophisticated algorithmic systems in digital markets presents significant challenges for regulatory authorities. These technological developments make it difficult to assess the discriminatory pricing by making it difficult to establish what constitutes "different conditions" within "comparable transactions" and to identify which "trading partners" experience "competitive disadvantages." Considerable amount of uncertainty exists regarding the applicability of Article 102(c) TFEU to relationships between businesses and individual consumers. The requirement that price discrimination must place affected parties at a "competitive disadvantage" relative to others appears problematic when applied to consumer contexts, as individual consumers do not typically compete against one another in commercial markets.

⁹⁸ 'EU Artificial Intelligence Act | Up-to-Date Developments and Analyses of the EU AI Act' <<https://artificialintelligenceact.eu/>>.

⁹⁹ George Slover, Is Artificial Intelligence a New Gateway to Anticompetitive Collusion?, Center for Democracy and Technology (Oct. 2, 2023), <https://cdt.org/insights/is-artificial-intelligence-a-new-gateway-to-anticompetitive-collusion/>.

¹⁰⁰ Consolidated Version of the Treaty on the Functioning of the European Union [2012] OJ C326/47 <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:12012E/TXT:en:PDF>

¹⁰¹ Maria Giacalone, 'Algorithmic Collusion: Corporate Accountability and the Application of Art. 101 TFEU' (2025) 2024 9 European Papers - A Journal on Law and Integration 1048.

¹⁰² Consolidated Version of the Treaty on the Functioning of the European Union [2012] OJ C326/47

The European Commission's report in 2019¹⁰³ established how digital markets necessitate a recalibration of competition enforcement. Algorithmic pricing models, especially those capable of monitoring competitor behaviour in real time or reacting to market fluctuations, raise concerns about the ease with which collusion can be achieved without overt communication. In such a scenario, the cost determination requirements embedded within a regulatory framework like India's 2025 Regulations¹⁰⁴ would align with EU priorities by making companies justify how algorithmic prices correspond to economic costs.

B. United Kingdom

The UK is no longer a part of the European Union or bound by its legal framework, however, it has retained a strong competition enforcement framework. The Competition and Markets Authority (CMA) has ensured to address the role of AI in antitrust violations considering the growing sense of urgency. In the 2019 action against Casio¹⁰⁵, the CMA found that the company used AI-powered software to monitor and enforce its pricing policy across online retailers, effectively discouraging discounting behaviour. In this case, a real time algorithmic enforcement was treated as a breach of competition law, and liability was not diminished by the use of digital tools. In 2021, CMA's research into pricing algorithms further emphasised the potential for such systems to facilitate collusion or lead to unintended coordination or 'facilitate explicit coordination'¹⁰⁶ in concentrated market places. The report noted personalised pricing mechanisms that were used to increase application of algorithms in order to reduce competition. The concerns also included tacit collusion due to complex and sophisticated pricing algorithms that used mechanisms of deep reinforcement learning, that is allowing the model to learn on its own to collude without explicit mention. In essence, even in the absence of explicit agreements, common usage of similar models or algorithm providers (for eg. Cloud-based dynamic pricing services, SaaS platforms) or of sophisticated pricing software could undermine market dynamics.¹⁰⁷ The report

¹⁰³ European Commission, *Competition Policy – Annual Report 2019* (2019) https://commission.europa.eu/document/download/e3397963-d96a-4c23-bc79-1c68262fff78_en?filename=comp_aar_2019_en.pdf

¹⁰⁴ Competition Commission of India, *Draft Competition Commission of India (Determination of Cost of Production) Regulations 2025* (July 2025)

¹⁰⁵ 'Case T- 79/12 Cisco Systems and Messagenet v Commission (Merger Clearance) [Archived] | Legal Guidance | LexisNexis'

¹⁰⁶ Algorithms: How They Can Reduce Competition and Harm Consumers, GOV.UK, <https://www.gov.uk/government/publications/algorithms-how-they-can-reduce-competition-and-harm-consumers/algorithms-how-they-can-reduce-competition-and-harm-consumers> (last visited Sept. 24, 2025).

¹⁰⁷ 'Main Developments in Competition Law and Policy 2021 – United Kingdom | Kluwer Competition Law Blog' <<https://legalblogs.wolterskluwer.com/competition-blog/main-developments-in-competition-law-and-policy-2021-united-kingdom/>> accessed 25 July 2025.

outlined the concerns of regulators in this context since the market could be wary and prices would then become uniform.

The UK response concentrates on preventing and addressing algorithms from formally established normative thresholds of law enforcement through technological opacity. At the same time, India's cost regulations draw attention towards the economic concomitant of price-to-cost inputs; conversely, the UK model has another complementary approach based on structural deterrence and enforcement against firms engaging or using technological methods to distort competitive outcomes. Increasingly, companies in the UK are expected to conduct algorithmic risk assessments and generate audit trials of their efforts to comply with article 35 of the general data protection regulation¹⁰⁸, this discusses the data protection impact assessment that is also conducted by a controller prior to processing activities. Another notably different aspect of the UK regime is its focus on the consumer-facing consequences of algorithmic pricing. Therefore, the CMA has looked at algorithms affecting product rankings, visibility, and nudging behaviour.

In some respects the CMA has expanded its analysis of competition with respect to algorithms beyond just the pricing aspect. Under these scenarios, transparency obligations (though not formally related to cost structures) are developing as a means of countering the asymmetric information advantage of superior firms. By all accounts then, while India's cost regulations create an obligation to perform a granular analysis of production costs on a price-to-cost basis, the UK system, in contrast, is not about examining approximations on process or stringing together compliance documentation costs¹⁰⁹. However, both approaches require documentation and/or compliance mechanisms within organisations well before formal hierarchy levels, but increasingly keeping in mind what 'explainability' settings will be relevant to algorithmic development.

V. THE PATH FORWARD

The current scenario in India highlights the inherent lack of implementation to curb predatory pricing, specifically, in the realm of AI-driven pricing models. Drawing from the emerging research on these prototypes, companies must ensure that prices determined by Artificial intelligence should be backed by rationale. The research reveals that pricing algorithms fundamentally alter competitive dynamics that traditional anti-trust frameworks have not been able to address.

¹⁰⁸ Art. 35 GDPR – Data Protection Impact Assessment, General Data Protection Regulation (GDPR), <https://gdpr-info.eu/art-35-gdpr/> (last visited Sept. 24, 2025).

¹⁰⁹(PDF) UK Competitiveness Index Report 2021' <https://www.researchgate.net/publication/356095901_UK_Competitiveness_Index_Report_2021>.

At this juncture, companies need proactive compliance culture to be developed that goes beyond general legal requirements, which is beyond minimum standards. This also means acknowledging the capabilities of algorithmic systems. This shall include algorithmic governance frameworks, internally for companies. Regular audits so as to ensure no oversight takes place for potential predatory patterns. This can be done at regular intervals by a committee or team setup in the company that are specialised in economics and competition law, acting as consultants.¹¹⁰ The same can be added as under the 2025 regulations as a mandate for each company, wherein the committee is to report the rationale on the basis of which the model has produced a pricing. The committee may constitute of an internal and external auditor and an IT expert from the company itself to report their findings. While that is the case, the committee shall also ensure the model derives a rationale based on economic analysis of the shifts in the market and not the competitive pricing. The company may also delve into technological investment. Their primary objective would be to ensure all compliance requirements are met as under the 2025 regulations¹¹¹ and are able to anticipate implications of the same. the committee may also track decision making and backend data storage and collection. For the company this shall imply that AI systems can demonstrate compliance with cost determination methodologies as per the 2025 regulations.¹¹² Real-time monitoring is also an essential factor to be inculcated that identifies potential pricing patterns that can prove to be problematic in the future, explicitly below-cost pricing. Safeguards shall also be put in place to allow legitimate competitive responses by the AI. Additionally, the introduction of cost floor can be introduced to fulfill the LRAIC requirements¹¹³ as under the 2025 regulations as per the type of product and market trends. This can be mentioned through a notification by the competition commission of India, along with the suggestions of economists, that can give out a formula for the calculation for the same. The benchmarks would also be reported annually with expert inputs, that algorithmic pricing models shall not undercut except in limited cases expressly notified. Largely, the companies need to focus on regular evaluations and review of predatory effects especially in industries that have a higher tendency to fluctuate. Establishment of documentation protocols for legal adherence and maintenance of records on decision-making. Companies shall also be required to retain these records for 5 years and submit these reports to

¹¹⁰ Qian Li, 'The Economics of AI-Enabled Price Discrimination' in Qian Li (ed), *AI-enabled Price Discrimination: A Competition Law and Economics Perspective* (Springer Nature Switzerland 2025) <https://doi.org/10.1007/978-3-031-84790-5_1>.

¹¹¹ Competition Commission of India, *Draft Competition Commission of India (Determination of Cost of Production) Regulations 2025* (July 2025)

¹¹² Competition Commission of India, *Draft Competition Commission of India (Determination of Cost of Production) Regulations 2025* (July 2025)

¹¹³ Competition Commission of India, *Draft Competition Commission of India (Determination of Cost of Production) Regulations 2025* (July 2025)

the CCI every year, as additional rules under the regulations. In the event any investigations are instituted the reports and records shall provide as proof.

The implementation of algorithmic pricing systems needs the development of comprehensive risk assessment protocols to address emerging antitrust concerns. This framework encompasses four critical evaluation dimensions:

1. Market concentration analysis requires an examination of how algorithms may inadvertently contribute to creation of barriers to competition. This analysis must evaluate both direct market share implications and the competitive advantages that pricing algorithms may confer upon firms.¹¹⁴
2. Consumer loyalty assessment focuses on the identification and measurement of artificial switching costs or lock-in effects that may result from algorithmic pricing strategies. This evaluation should distinguish between legitimate customer retention through superior service delivery and potentially anticompetitive practices that artificially constrain consumer choice.
3. Recoupment pathway evaluation establishes mechanisms to detect systematic pricing patterns that could indicate predatory behaviour. This involves tracking of algorithmic systems to check if they generate below-cost pricing strategies, particularly in markets where such patterns could eliminate competition.¹¹⁵
4. Network effects monitoring addresses markets where algorithmic pricing systems may exploit existing network-based competitive advantages. This monitoring framework must assess algorithms that create or maintain market power beyond what would occur through natural competitive processes.

These four components provide a structured approach for organisations to proactively identify and mitigate antitrust risks associated with algorithmic pricing implementations, ensuring compliance while preserving the efficiency benefits of automated pricing systems¹¹⁶.

¹¹⁴ Algorithms and Collusion: Competition Policy in the Digital Age (2017), https://www.oecd.org/en/publications/algorithms-and-collusion-competition-policy-in-the-digital-age_258dcb14-en.html.

¹¹⁵ Pricing Algorithm in Competitive Law | SCC Times, <https://www.scconline.com/blog/post/2023/04/18/pricing-algorithm-in-competitive-law/> (last visited Sept. 24, 2025).

¹¹⁶ “Unraveling Competition Law in the Era of Artificial Intelligence: A Comprehensive Exploration” 4 Legal Lock Journal 2024-2025’ <<https://heinonline.org/HOL/LandingPage?handle=hein.journals/lglckjnl4&div=11&id=&page=>>.

The regulators, in this case the CCI, should provide clearer detailed guidelines that address algorithmic specific cost derivation methodologies that account for the complex cost structures on AI-driven businesses. Dynamic price evaluation regulations can rapidly assess the everchanging shifts in the market. An *ex-ante* approach to the same, adding safe harbour provisions for companies that demonstrate good faith efforts can be beneficial for competition. Another necessity in this fast paced economy is the inclusion of technologically equipped and experienced professionals that can identify any breach of statutory provisions, which can also be consultations with experts from time to time.¹¹⁷ However, minimal understanding of the ever-developing technological advancements is essential. The CCI shall constitute a Technical Advisory Board comprising economists, IT experts, and legal professionals to guide enforcement, draft sector-specific algorithmic pricing guidelines, and conduct joint audits with company committees. The most authoritative approach, however, can be by setting precedents that transform the competition law landscape. Companies should have to strictly adhere to guidelines and no room for circumvention of laws should be left. Algorithmic transparency standards should be set, that balance competitive secrecy with regulatory oversight needs.

At the same time India can move towards a forward looking mechanism that includes the introduction of a regulatory “sandbox” for pricing algorithms that would allow companies to test AI- pricing systems under CCI’s supervision before fully deploying the same, potentially allowing the CCI and the company to do a test run *per se* and weed out any antitrust violations. A secondary aspect would be to maintain explainable AI pricing reports which means a disclosure simplified for consumers and rationales for algorithmic pricing decisions. This is simply to be more transparent and gain consumer trust allowing a consumer friendly decision making process. This also creates a means of accountability for the public at large. Third, the CCI can enforce a regulatory “kill- switch” mechanism giving it authority to pause algorithms in real time if predatory behaviour is detected. It would ensure interim measures till investigations can be done by the Competition Commission, therefore mitigating harm in the long -term which is one major concern faced by regulators.

Companies can also be asked to embed “ethics by design” India pricing models, that allows fairness and consumer welfare principles to be embedded into their functions. This allows a welfare approach for the consumers even though the competition regulations are not welfare legislations. This integrates consumer protection principles as a part of competition law. The Commission can

¹¹⁷ Ritima Singh, CCI v. TRAI: Regulatory Framework for Better Coordination and Interoperability (Vol. 4, 2023)

also conduct stress tests as a part of prior investigations or allow firms to do the same as a simulator of how the pricing models would behave under market conditions that include inflation, monopoly conditions or supply demand situations. Lastly as an additional protection whistle blower protection can be encouraged to ensure any employees reporting manipulative practices have safeguards and are able to disclose anti-competitive practices without a fear of retaliation, ensuring most antitrust practices are caught and dealt with beforehand. These recommendations can be incorporated as a part of the 2025 regulation under its rules or through market practices/ CCI notifications to ensure predatory pricing also deals with AI pricing systems that are not incorporated at this given instance. While the digital competition bill has also been introduced and the Competition Act can regulate these practices, a specific regulation for predatory pricing would ensure checks and balances for companies using AI driven pricing models.

India requires a comprehensive competition law framework to address algorithmic pricing challenges while supporting technological advancement. The regulatory approach must align with India's AI development objectives by establishing clear guidelines that distinguish legitimate algorithmic competition from anti-competitive practices, thereby promoting innovation and supporting indigenous development through equitable market conditions. Simultaneously, India should pursue international leadership by developing best practices for emerging economies, coordinating globally to prevent regulatory arbitrage, and providing technical assistance to smaller market participants. The framework must incorporate future-oriented design principles through adaptive regulations that evolve with technological capabilities, including regular effectiveness assessments, scenario planning for emerging algorithmic strategies, and stakeholder feedback mechanisms that enable rapid regulatory adjustments¹¹⁸. This integrated approach ensures that India's competition law effectively addresses the complexities of algorithmic pricing while maintaining the essential balance between fostering innovation, protecting market competition, and preventing algorithmic manipulation that could harm consumers and smaller businesses in the rapidly evolving digital economy.

VI. CONCLUSION

India's competition law framework requires urgent adaptation to address algorithmic pricing effectively. While the CCI's 2025 cost determination regulations provide enhanced analytical means, significant gaps still remain in regulating AI-driven pricing methodologies. The current

¹¹⁸ Amit Bansal, Predatory Innovation in the Digital Era (Vol. 3, 2022) <https://ccijournal.in/index.php/ccijolp/article/download/75/57/554>

wait-and-watch approach risks allowing anti-competitive practices to remain unchecked. There is a need to develop comprehensive guidelines that distinguish legitimate algorithmic competition from predatory practices, establish algorithmic transparency standards, and create proactive compliance frameworks. By learning from international best practices while supporting indigenous technological development, India can position itself as a leader in algorithmic pricing regulation, ensuring fair competition while fostering innovation in its rapidly expanding digital economy.