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The problem of competition and digital platforms in Brazil

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Summary

The growing use of pricing algorithms and artificial intelligence in the market poses new challenges for competition law. Algorithmic collusion, even if it does not involve explicit agreements between competitors, can generate effects similar to traditional cartels, negatively impacting free competition and consumer welfare. This article analyzes the applicability of Law No. 12,529/2011 to algorithmic collusion, examines the liability of digital platforms, and discusses the evidentiary and regulatory challenges of this phenomenon in Brazil. It concludes that, although the Brazilian legal system has adequate instruments to hold anticompetitive behavior accountable, regulatory updates are needed to address the specificities of digital technologies.

Keywords: Competition, technology, Law.

Abstract

The increasing use of pricing algorithms and artificial intelligence in markets poses new challenges for Competition Law. Algorithmic collusion, even without explicit agreements among competitors, may generate effects like traditional cartels, negatively affecting free competition and consumer welfare. This article analyzes the applicability of Law No. 12,529/2011 to algorithmic collusion, examines the liability of digital platforms, and discusses the evidentiary and regulatory difficulties of this phenomenon in Brazil. It concludes that, although the Brazilian legal system provides adequate instruments to hold anti-competitive practices accountable, there is a need for legislative updates to address the specificities of digital technologies.
Keywords: Competition, technology, Law.

1. Introduction

Since the event promoted by the Organization for Economic Cooperation and Economic Development (OECD) in 2017, entitled *'Algorithms and Collusion',* authorities and academics have been warning about the risks of using algorithms self-learning in the formation of anti-competitive practices, without taking into account that algorithms programmed to mirror the conduct of another competitor increases significantly the risk of developing supra-competitive prices. In Brazil, discussion falls within the scope of article 36 of Law No. 12,529/2011, which typifies conduct such as cartels and other practices that harm free competition. Furthermore, the "price parallelism" of digital platforms in Brazil refers to the ability to

control and influence, even tacitly, the prices of products and/or services offered by different vendors, often resulting in different prices similar or uniform due to competition, with a detrimental impact on national consumers. Although platforms can bring benefits in terms of efficiency, access and competitiveness to the local, regional and international market, also raise concerns about anti-competitive practices and the need for regulation to ensure a fair and balanced environment, in favor of free competition and the preservation of the rights of Brazilian consumers. Platforms how Marketplaces and delivery apps use algorithms to set prices, which can lead to a convergence of these among different sellers. These same platforms facilitate price comparison and at the same time collect and process data on consumer behavior and pricing, suggesting or even imposing these conditions for sellers, which limits their autonomy and puts pressure on them to maintain their competitive prices, and leads to a local homogenization of the price offer harming free competition. This article seeks to analyze, systematically and concisely, the relationship between algorithmic collusion and Brazilian competition law, highlighting regulatory challenges and prospects for evolution.

2. Algorithmic Collusion: Fundamental Concepts

Algorithmic collusion can be understood as the use of algorithms to coordinate market behaviors between companies, even without an agreement explicit. The literature points to four main categories: (i) algorithms as messengers: Algorithms as messengers" means that social media algorithms select and distribute content to users, acting as "messengers" who decide what is shown in feeds, based on relevance to each person, and not only in chronological order. They use data about user behavior to prioritize posts that are most likely to capture attention, with the objective of increasing the time spent on the platform; (ii) *hub and* spoke models: The *Hub and Spoke* model is a system where a centralized point (the *"hub")* acts as a main node for the organization and distribution of resources, while

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several smaller points (the *"spokes")* connect to this hub, following a similar pattern to a bicycle wheel. This model is widely used in logistics to optimize transportation of goods, in health networks to centralize services and forward patients, and in computer network architectures, where communication occurs through from a central control point; (iii) predictable agents: a mathematical function that, applied to a mass of data, it can identify hidden patterns and predict what may occur. Predicting the future has always been a challenge and an incessant search…hence the palm reading, astrology, etc. Now, we can think that it is possible make fairly reasonable predictions. There are two types of predictive models, supervised and unsupervised. In the first, in a phase we call model training, the input data and output are presented together. The training lasts until the model learns to map the data and identify patterns between inputs and outputs. Examples of this model include neural networks and decision trees. Unsupervised models only receive input data and its function is to discover the relationships between the data presented. The technique of clustering is a good example of this model.; and (iv) the so-called 'digital eye': it is a security device that uses advanced technology to monitor and record activities in a given environment.', associated with artificial intelligence self-learning. These forms vary in degree of complexity and potential evidentiary, but they all present relevant risks to competition.

3. Law No. 12,529/2011 and its Applicability

Article 36 of Law No. 12,529/2011 classifies as an infraction of the economic order any act that has as its object or may produce anti-competitive effects, even that are not realized. In this sense, even if the algorithms do not constitute an agreement traditional human, its effects can be subsumed under the legal hypotheses of practice collusive. Thus, the actions of the Administrative Council for Economic Defense (CADE) it becomes essential to interpret and apply the standard to new digital realities.

4. Digital Platforms and Competitive Responsibility

Digital platforms, such as marketplaces, Amazon, Netflix, Mercado Livre, etc., play a central role in enhancing algorithmic collusion. The high transparency of prices and uniformity in the presentation of offers increase the risks of alignment tacit between competitors. Furthermore, the platforms' responsibility for omission or indirect encouragement of anti-competitive conduct by its business partners, especially when they profit from the practice or fail to take preventive measures. Law 12,529/11 provides for cases of liability for anti-competitive conduct, However, the lack of algorithmic transparency still represents a decisive obstacle to accountability for criminal conduct, although CADE has already presented some case law on the subject.

5. Comparative Law and International Experiences

In the United States and the European Union, cases involving algorithms pricing have led to reflection on the sufficiency of traditional antitrust rules. The European experience with sectoral investigations *('market inquiries')* has proven to be relevant to improving the control of digital conduct. The United Kingdom and Germany has also been taking preventative measures, recognizing that algorithms can function as *'plus factors'* and *'Quicksort'* in evidentiary analysis.

6. Evidential and Regulatory Challenges

One of the main obstacles in tackling algorithmic collusion lies in the production of evidence. The opacity of artificial intelligence systems makes it difficult to demonstration of a causal link between the use of algorithms and anti-competitive practices. Furthermore, the need for harmonization between competition regulation and innovation technological demands caution. In this sense, it is recommended to reverse the burden of proof in certain contexts and the creation of specific obligations for large platforms and

increasing algorithmic transparency in the use, development and execution of digital platforms in Brazil.

7. Discussion

The analysis shows that, although Law No. 12,529/2011 contains instruments capable of facing algorithmic collusion, their application requires innovative interpretations and greater coordination with international experiences. The accountability of platforms digital is a central theme, given that they are consolidating themselves as *gatekeepers* of commerce digital. On the other hand, competition policy must preserve incentives for innovation, avoiding excessive intervention that could compromise technological development and the country's competitiveness. There must be a growing commitment among companies, platforms operating in digital commerce and state oversight bodies on the one hand pact of reciprocal transparency in favor of the implementation of the constitutional principle of free competition, based on art. 170 of the CF/88 and Law 12,529/11 as a way of combat the formation of *Hub-and-Spoke* cartels , forms of *QuickSort* and the dissemination of algorithms that mirror the conduct of others in order to combat and prevent the emergence of supra-competitive prices in the Brazilian national market.

Conclusion

Algorithmic collusion represents an emerging challenge to data law. Brazilian competition. While current legal mechanisms allow hold companies accountable for anti-competitive practices, on the other hand growing technological sophistication demands normative and regulatory updates for the more effective and efficient combat against *Hub-and-Spoke* cartels , *QuickSort* forms and the dissemination of behavior mirroring algorithms. The comparative experience demonstrates the relevance of measures such as sectoral investigations, reversal of the burden of proof and conceptualization of platforms as *gatekeepers.* In view of this, the strengthening Brazilian competition policy requires not only the application of existing rules,

but also legislative and jurisprudential reforms that take into account the specificities of the economy in the digital platform environment in Brazil.

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