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Ready or not? A systematic review of case studies using data-driven approaches to detect real-world antitrust violations

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Abstract

Cartels and other anti-competitive behaviour by companies have a tremendously negative impact on the economy and, ultimately, on consumers. To detect such anti-competitive be- haviour, competition authorities need reliable tools. Recently, new data-driven approaches have started to emerge in the area of computational antitrust that can complement already established tools, such as leniency programs. Our systematic review of case studies shows how data-driven approaches can be used to detect real-world antitrust violations. Relying on statistical analysis or machine learning, ever more sophisticated methods have been devel- oped and applied to real-world scenarios to identify whether an antitrust infringement has taken place. Our review suggests that the approaches already applied in case studies have become more complex and more sophisticated over time, and may also be transferrable to further types of cases. While computational tools may not yet be ready to take over antitrust enforcement, they are ready to be employed more fully.

Keywords:

Artificial intelligence, Competition law, Computational antitrust, Literature review, Machine learning, Public enforcement, Statistical analysis

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