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# Navigating Antitrust Risks: The Hidden Dangers of AI and Software Pricing and Inventory Tools for Hotels and Property Managers

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 **Key Take:** *Artificial intelligence has significant benefits, but it may be risky business to hotels and property managers.*

Artificial intelligence (AI) is everywhere and in every business. In the hospitality industry, AI tools can offer significant benefits to hotels and property managers, such as optimizing prices and improving vacancy rates. Even better, these helpful tools come with no legal risk, right? Not necessarily. In fact, though a complicated and uncertain area, multiple federal courts have permitted price-fixing claims to proceed based on competitors' common usage of the same algorithmic software tool, and the U.S. Department of Justice (DOJ) has taken the position that coordination of competition through an algorithm is no less illegal than direct collusion. As a result, hotels and property managers need to

seriously consider the potential antitrust risks when using AI-driven or algorithmic software-based third-party services for property, revenue, or inventory management. These tools can increase efficiency, but, depending on specifics, can also lead to serious antitrust risks if, for example, the tool facilitates sharing of competitively sensitive information or results in coordination of rental rates among competitors.

## Why Is it Risky?

As an initial matter all businesses should know that competitors cannot lawfully coordinate to set their prices or to manage their inventory to the same effect. In the traditional sense, that would mean competitors directly communicating and reaching an agreement about their prices or output. However, antitrust law applies equally to indirect agreements reached through a common agent — or hub. For example, multiple competitors agreeing to coordinate their pricing through use of the same agent would be legally no different than such competitors reaching that same agreement directly. In antitrust parlance, this is known as a “hub and spoke” conspiracy because the direct agreements are between each competitor (or spoke) and the common “hub,” but each such “spoke” proceeds at least in part because it understands that its competitors are entering parallel agreements with the “hub” that will facilitate the desired coordination.

The recent development that hotels and property managers especially need to recognize is that this “hub and spoke” paradigm of alleged collusion has started to be applied in rental markets where competing hotels, landlords, or property managers use a common third-party algorithmic software provider that works with each competitor to recommend and optimize its prices and inventory management decisions, but may do so based on what the AI or software “learns” from other competitors’ proprietary data input into the same

tool. Now, if your business is using a software that you know none of your competitors are using, or that the software only utilizes publicly available, non-confidential data, then your antitrust risk is likely minimal. But in reality, how can your business know that?

If your business is relying on an AI/algorithmic software service to analyze market data and make pricing (rate) or inventory management recommendations based on what it “learns” from your confidential data and what it otherwise “knows” from the market (perhaps including competitors that use the same service), then you may be unwittingly taking a substantial antitrust risk. Specifically, private plaintiffs or the DOJ could claim that by so doing, you are engaged in collusion to fix prices in violation of federal and state antitrust laws. Even if you never actually communicate with anyone from any of your competitors, much less “agree” with any of them, using and relying on the price and inventory management recommendations of a common algorithmic software tool has been alleged to legally amount to the same thing — and could land your business as the defendant in a federal lawsuit.

### **What Is the Department of Justice Saying?**

Private plaintiffs and U.S. enforcement agencies have increasingly targeted hotels and landlords as well as their property management companies for alleged collusion facilitated by and through common usage of the same software pricing tools. Though dependent on factual specifics such as whether the common software tool utilizes non-public data provided by competing subscribers, the DOJ made its position on the issue clear in both its own case against a leading algorithmic software company (RealPage, Inc.) as well as in an amicus brief filed in the plaintiffs’ Ninth Circuit appeal of the recent dismissal of their private antitrust claims against competing casino hotel operators (*Gibson v. Cendyn Group, LLC*, D. Nev. May 8, 2024). Specifically, the

DOJ has argued that it makes no difference that prices are fixed through common use of an algorithm instead of by a person; sharing information through an algorithmic service should be treated the same as sharing information through email, fax machine, or face-to-face conversation. Put another way, the DOJ has argued that whether competitors effectuate a price-fixing scheme through a software algorithm or through human-to-human interaction should be of no legal significance.

The DOJ has even taken it a step further, claiming that it is not necessary for conspirators to consistently adhere to a common software tool's recommendations for a challenged price-fixing scheme to be per se unlawful. The DOJ has argued that even where the use of a common pricing algorithm results only in a common default or starting point of prices that ultimately vary in practice, such an agreement is still per se illegal. With respect to whether there actually is any agreement among competing property managers (as opposed to just each independently agreeing with the common software service), the DOJ has taken the position that such a horizontal agreement can be implied where the software provider makes the same pitch to each competitor indicating that use of the algorithm "could help them avoid competition," and then each competing property manager agrees to use the software tool.

## **What Are Courts Saying?**

As of now, some courts have been skeptical of price-fixing suits alleging that the common use of an algorithmic software tool to inform pricing and inventory management decisions violates antitrust law. These courts have refused to allow an implication of the requisite horizontal agreement among competing property managers where each may just as easily have independently decided to use the same third party software tool — in antitrust parlance, that there is no "rim" (horizontal agreement) around the "hub and spoke" that is

required in order to plead a collusive agreement. Some courts have also questioned whether any price-fixing conspiracy can exist where competitors have not agreed and are not bound to follow the recommendations of the commonly used software tool. However, other courts have permitted such claims to proceed based on plaintiffs' allegations and the theory of an implied "rim" because the utility of the algorithmic software tool may plausibly be said to depend on its use by a substantial proportion of competitors in an impacted market.

The District of Nevada's recent dismissal of claims against world-famous hotel-casinos illustrates the skepticism of some courts. There, the judge questioned the viability of the plaintiffs' antitrust theory of the case, stating that "the courts are struggling with this issue — if members of the agreement were able to deviate, what does that mean for the allegations of a conspiracy?" In the most recent case that was dismissed in the District of New Jersey (*Cornish-Adebiyi, et al., v. Caesars Entertainment, Inc.*, D. N.J. September 30, 2024), the court found that the 14-year gap between when the various casinos had subscribed to the software, coupled with the independent pricing authority the casino-hotels continued to retain and exercise, made it "quite implausible that they tacitly agreed to anything, much less to fix the prices of their hotel rooms." The court further found that because the plaintiffs had not alleged that proprietary data was pooled or otherwise commingled into a common data set, it could not be inferred that the software's pricing recommendations offered to each hotel were informed by, much less based on, a set of confidential competitor data. Both of these cases are now on appeal, and, as already noted, the DOJ has weighed in on the side of the plaintiffs in the *Gibson* appeal pending in the Ninth Circuit. So it remains to be seen whether and on what basis those claims may proceed.

However, other courts have ruled that plaintiffs' allegations of property managers' collusion through



usage of the same software tool are sufficient to at least state an antitrust claim and proceed to discovery to determine whether the actual facts bear out those allegations. One such case that has made it past the pleading stage is the private class action on behalf of renters against leading algorithmic pricing software company RealPage, Inc (*In re: Realpage, Inc. Rental Software Antitrust Litig.*, M.D. Tenn. Dec 28, 2023). There, the Tennessee federal court issued a split decision, dismissing claims alleging a so-called horizontal agreement among landlords and property managers (the “rim”), but upholding claims alleging that the vertical agreements between RealPage and each of its property management and landlord clients (the “spokes”) were unreasonable and anticompetitive even in the absence of any horizontal agreement.

More recently, a federal court in Washington state upheld private class action collusion claims brought by renters against another leading real estate management software company, Yardi Systems Inc. (*Duffy v. Yardi Systems, Inc.*, W.D. Wash. Dec 4, 2024). There, the federal court refused to dismiss claims against Yardi and its building manager clients because Yardi’s “Rentmaximizer” software had allegedly been promoted and adopted as a means of pooling clients’ non-public pricing and inventory data in order to increase rents, which would only be plausible if at least most competing management companies used and followed the recommendations of Yardi’s tool. Thus, at least for pleading purposes, the court accepted the allegation of an implied horizontal and per se unlawful agreement among the competing property managers that was effected through Yardi. Although the defendants deny that Yardi’s tool actually depends on, much less shares, their non-public competitive data, that disputed issue of fact will now be subject to discovery and further litigation.

**State and Local Legislation Weighs In**

To add an additional layer to this already complex and unsettled legal risk, state and local legislatures are weighing in on the issue. For example, not content to rely on courts' interpretations of federal antitrust law, Philadelphia Bill No. 240823 would enact a legislative ban similar to that already enacted in San Francisco, which in July became the first city to pass an ordinance prohibiting algorithmic programs that set or recommend multifamily residential rents or manage occupancy levels (which indirectly impacts rents). The Philadelphia bill defines "price coordination" to include collecting certain non-public competitor information, including price, supply, and occupancy rates; processing that information through "a computational or algorithmic system, software, or process"; and generating recommendations for rental prices, fees, terms, or occupancy levels. Such municipal legislation may start a trend at the local and state levels that could supersede antitrust rulings for defendants in federal courts, and so is yet another issue to keep an eye on.

## **What Should You Do Now?**

An individual hotel, landlord, or management company's unilateral pricing and other competitive decisions are typically insulated from antitrust risk because Section 1 of the Sherman Act requires joint conduct, or an agreement in restraint of trade among multiple parties. But use of a third party software service or tool that could be framed as a common agent that shares non-public information and/or "learns" from the inputs of other users of that same tool may be alleged to transform individual decisions into an unlawful agreement — and alleged price fixing through that common tool. This risk is mitigated where such a tool uses ("learns" from) only public information — for example, publicly announced room or rental rates — but particular caution is warranted where subscribers input their non-public, competitively sensitive information into the tool and so may be alleged to be implicitly sharing such information with competitors that use

the same tool (and input their respective competitively sensitive non-public information) in order to generate coordinated recommendations as to rents or occupancy levels. Another rule of thumb for consideration is whether such an algorithmic software tool's recommendations would be useful for one property management company (or hotel or landlord) if none of its competitors were using it. If the answer may be no, then caution is warranted as to the potential antitrust risks.

Ultimately, the legality of an algorithmic or any commonly used software pricing tool is a fact-based analysis that takes account of what user data the software relies on and how the software operates in analysis of and "learning" from such data in making recommendations. However, there are steps that hotels and other property managers can take to help minimize these legal risks by conducting their own due diligence and risk assessment of any AI or algorithmic software tool before it is deployed. In sum, the company needs to gain an understanding of how the technology actually works before using it, and make sure that you are maintaining competitive independence when it comes to pricing and inventory decisions. The alternative could be to unwittingly become a defendant in federal court for allegedly having participated in a price-fixing conspiracy.