CMA Call for Information on Algorithms - Uber response

1. Introduction

1.1. Uber welcomes the opportunity to respond to the Competition Market Authority's (CMA) call for information on algorithms, competition and consumer harm. As the CMA recognises, many of the activities we take for granted today - from socialising to ordering food to moving about - could not exist without algorithms. Algorithms have also enabled considerable gains in efficiency and effectiveness that have helped boost productivity, innovation and economic growth. By matching riders and drivers more efficiently for example, Uber helps lower wait times for riders and create more business for drivers.

1.2. While the CMA's paper identifies some of the potential risks that could result from algorithms, in the absence of significant empirical evidence demonstrating their harm, the focus of any regulatory regime should be on enabling the use of algorithms in business to the benefit of consumers and markets, as opposed to restricting their use.

1.3. When it comes to the potential harm caused by the use of algorithms, we believe these are ultimately linked to human (in-) action and/or supervision. Indeed, algorithms are and remain the product of human ingenuity under human supervision. As such, existing legislation - including UK consumer law, the UK General Data Protection Regulation, the Competition Act 1998 and the Equality Act 2010 - is sufficient to help regulate and mitigate the potential harms identified. There is a risk that additional regulations will duplicate existing legislation and create overlaps between enforcers.

1.4. In our submission, we have provided a high level view of our approach to algorithms and made a number of recommendations for a future regulatory regime. We would be happy to provide further information that may assist the CMA in the context of its consultation.

2. Uber's use of algorithms

2.1. Uber is a smartphone app that lets users easily book a car with a licensed driver at the touch of a button. Founded in 2009 in the United States, we now operate in 700 cities in over 60 countries. In the UK, Uber is available in more than 40 towns and cities providing tech-based intermediary services for (i) ridesharing, i.e. the maintenance of a network of, and ultimately the matching of, passengers (also referred to as "riders") and drivers, to deliver transportation services (Uber Rides), (ii) food delivery services (Uber Eats). Through Uber Eats, Uber maintains a network of, and matches, consumers (referred to as "eaters"), delivery partners (i.e. independent couriers) and merchants for the delivery of prepared food, groceries and other items.

2.2. In addition to our Rides and Eats services, in London we provide riders access to a range of transportation options which help the city to move including ebikes, public transit options and boat services through our partnership with Thames Clippers. This is part of our multimodal

strategy where we are partnering with third parties across the world to offer consumers the widest possible choice of products through the Uber app.

2.3. Algorithms are at the centre of Uber's activities and we believe their use generates significant efficiencies and benefits for Uber's customers, consumers and for cities. For example, one of the algorithms which Uber uses is the "matching algorithm", with which Uber continuously links trip requests and available drivers so that it can offer rides to drivers (who are free to decide whether to accept or reject the ride). When matching trip requests to available drivers, Uber strives for the most efficient allocation of available rides in order to reduce waiting times for passengers and enable drivers to generate greater revenues.

2.4. Work on our algorithms has also helped us to improve our services to riders and drivers. For example, initially, we matched users solely by asking, "Who's closest?" But we learned that closest does not always mean quickest. Traffic, rivers, and other geographical factors add complexity. Over time, we have made our matching technology more aware of these real-world factors to create a seamless pickup experience for both riders and drivers.

2.5. Uber uses different and differently configured algorithms for its food delivery activities. Similar to the "matching algorithm" above, Uber Eats uses a number of inputs such as the positioning of nearby couriers, estimated food preparation times and estimated arrival times to send a request to the courier at the optimal moment. A "batching" algorithm is also used to choose if two separate orders should be grouped together and delivered by the same courier. This algorithm uses inputs such as estimated delivery times and travel routes to calculate where grouping orders will improve overall customer experience.

2.6. Trust and transparency are core values of Uber. For this reason, Uber provides a detailed explanation on its website of how the Uber Driver app allocates rides requested by passengers to drivers. We also provide more general information as to how we use algorithms on our platforms here.

3. Addressing potential harms caused by algorithms (questions 1-4)

3.1. The CMA's paper rightly recognises that *"many algorithmic systems provide substantial benefits to consumers"*[1]. We believe it is important to consider the scale of these benefits against the potential or perceived harms that the use of algorithms could generate when considering any regulatory intervention. Indeed, it is important that any intervention by the CMA does not have a chilling effect on the use, development and improvement of algorithms which generate benefits for customers and consumers. Therefore any regulatory intervention should be limited to very specific circumstances where a competition and/or consumer harm has been established. Such assessment should also necessarily take into account the efficiencies and benefits generated by the use of any relevant algorithms before reaching any conclusion on the potential harm.

[1] CMA, Algorithms: How they can reduce competition and harm consumers (2021), paragraph 1.4.

3.2. The CMA's paper identifies a number of practices as having the potential to cause harm both to consumers and to competition. Uber generally agrees that the potential harms identified by the CMA are the right ones to focus on. However potential harm does not necessarily arise from the algorithm itself but rather from the impact of the algorithm; and this impact would need to be established with empirical evidence.

3.3. Moreover, we believe that there is already a strong applicable legislative and regulatory framework in the UK to address potential 'misuse' of algorithms (see below at paragraph [4.2]).

Pricing and Uber

3.4. The CMA's paper references a number of media reports containing allegations about Uber's use of algorithms including, for example, 'personalising' prices based on factors such as payment method.[2]

3.4.1. Uber does not take into account any rider-specific (including rider personal data) or any device-specific (such as payment method or low battery) information for the purpose of pricing. In terms of surge pricing, this automatically comes into effect when there are more riders in a given area than available drivers. This encourages more drivers to serve the busy area over time and shifts rider demand to maintain reliability and restore balance. Surge only accounts for riders present on the Uber app, drivers available on the Uber app, and historical willingness to pay in a city and at a city level (not rider-specific, mobile-specific information nor third party taxi/PHV operator information).

3.4.2. Similarly, Uber's route-based pricing does not use any rider personalised data to recommend the price to be paid by riders to drivers. Route-based pricing adjustments are based on patterns in rider demand.[3] This means that, for example, on certain routes at certain times, the offered price will be lowered in order to attract more riders. The purpose of these adjustments is to increase demand for rides thereby creating more earning opportunities for drivers.

4. Techniques and regulatory interventions to address potential harms that may result from algorithms (questions 5-8)

A strong legislative and regulatory framework already applies to the use of algorithms

4.1. In its paper, the CMA proposes providing guidance to businesses and setting or clarifying standards, including more transparency on algorithms.[4] The CMA even refers to proposing additional legislation (including orders following a CMA market investigation) or guidance to

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2 CMA, Algorithms: How they can reduce competition and harm consumers (2021), paragraph 2.17.

3 We actively monitor these adjustments and strive to recognize and respond to any unintended impact. See more explanation on our website: https://marketplace.uber.com/pricing/route-based-pricing.

4 CMA, Algorithms: How they can reduce competition and harm consumers (2021), paragraph 4.1.

clarify the extent to which firms (outside of the investment sector) have transparency requirements for their algorithmic systems.[5]

4.2. There is already a strong legislative and regulatory framework against any misuse of algorithms which seeks to address the potential harms to consumers and to competition identified by the CMA in its paper. For example, in respect of personalised pricing, Ofcom identified in August 2020[6] key applicable laws regarding:

- Access to and the use of consumer data: Data Protection Act 2018 (which updated and repealed the Data Protection Act 1998), and the UK General Data Protection Regulation (GDPR). In particular, article 21 of the UK GDPR allows consumers to object to profiling for marketing purposes and article 22 prohibits solely automated individual decision-making with significant effects unless strict conditions are demonstrably adhered to.

- Consumer protection laws to ensure a level of transparency to consumers - Consumer Protection from Unfair Trading Regulations 2008, Unfair Terms in Consumer Contracts Regulation, and Consumer Rights Act 2015; Advertising Standards Authority (the ASA).

- Competition regulations to ensure markets are competitive - Competition Act 1998 (CA1998), and the Enterprise Act 2002 (EA2002).

- Laws preventing unlawful discrimination - Equality Act 2010. Potential harms relating to algorithmic bias are therefore covered by these provisions.

4.3. In addition to the above, the Platform-to-Business Regulation[7] ensures a level of transparency to business users.

4.4. Whilst further algorithm-specific guidance on the application of existing legislation may be welcome in some instances, we believe that it is essential that the CMA first considers where such guidance might be needed to further specify existing requirements. Any new guidance, even if specific to algorithms, should not be introduced 'without regard to' applicable provisions, with the risk of conflicting with general provisions on data protection, consumer protection laws or competition law. Additional regulations or guidance that duplicates existing legislation and creates an unnecessary burden on businesses should be avoided. Regulators' interventions should therefore be limited to exceptional circumstances where it is clear that there is a gap in existing rules.

Transparency obligations should be proportionate

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5 CMA, Algorithms: How they can reduce competition and harm consumers (2021), paragraph 4.13.

6 Ofcom, Personalised pricing for communications, Making data work for consumers, August 2020.

7 Regulation (EU) 2019/1150 of the European Parliament and of the Council of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services and the Online Intermediation Services for Business Users (Enforcement) Regulations 2020.

4.5. We agree with the CMA that transparency about algorithmic systems is important. Uber has committed to this by providing detailed explanations on the functioning of our algorithms on our website (see above at paragraph [2.6]). However, where algorithms are at the centre of a companies' business - as is in Uber's case and for many other global Information Communication and Technology companies - it is also essential to ensure the protection of companies' business secrets, which inevitably include details on their algorithms. Therefore transparency obligations should not adversely affect rights of others, including the company. Transparency obligations should also set reasonable expectations and leave room for the continuous improvement and evolution of algorithms. Explanations that are sufficiently detailed to promote education, but not so detailed that they must be updated and evaluated continuously, should be acceptable under any new regulatory intervention.

Any new regulatory intervention should be limited to exceptional circumstances

4.6. In light of the above, we believe that any new regulatory intervention can only be justified in exceptional circumstances where it is demonstrated, based on empirical evidence, that there has been harm to consumer and/or competition, and this harm cannot be addressed within the existing enforcement framework.