

INFORMATION ASYMMETRIES IN ALGORITHMS AT DIGITAL PLATFORMS: MOTIVATIONS TO PARTICIPATE AND EU REGULATORY APPROACH

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Abstract *The junction of economy, law and technology is an important topic in the world that is increasingly moving online. Digital platforms “match” supply and demand by using large amounts of data and algorithms. Some digital platforms dominate travel markets because of platforms’ data and networks effects. Digital platforms in travel industry use algorithms to generate suggestions to consumers via recommendation (ranking) systems. Ranking has important implications not only for business users of digital platforms, but for consumers’ choice as well. This research explores motivations to participate in digital platforms for short-term vacation rental and it sheds light on information asymmetries in regard to algorithms generating ranking in search results. This research also briefly explores EU regulatory approach to digital platforms and looks at the latest EU legal texts in regard to fairness and transparency in ranking.*

Keywords: *Fairness, Ranking, EU Regulation, Algorithm.*

1. INTRODUCTION

Technological developments have influenced tourist industry by facilitating the growth of a business model called “sharing” or “collaborative”. This business model enables individuals and others to advertise their spare rooms or properties for short-term stay on online platforms such as Airbnb and Booking.com. In travel industry, algorithms used by digital platforms for short-stay accommodation provide suggestions about accommodation to travelers. Intermediation services offered by online platforms may be essential for the success of those who want to “share” their accommodation. Algorithms are among the most important technological drivers (Bundeskartellamt-Autorité de la Concurrence, 2019) of these new business models. The market for short-term vacation rentals has been growing fast, outperforming the growth of traditional accommodation providers (World Travel and Tourism Council, 2019). A relatively small number of online platforms² increasingly provide the main connection between accommodation providers and travelers. The relationship between an online platform and its business user (accommodation provider) is called platform to business (P2B) relationship. Since most of the internet traffic is generated via online search engines and online platforms, medium, small and micro-sized companies and individuals are becoming more and more dependent on online platforms in order to reach their customers at home and abroad. Small, medium and micro-accommodation providers need large online platforms to succeed in their business. This dependency is reinforced by strong, online platforms’ data-driven network effects, entailing some potentially damaging practices (European Commission, 2018)

There have been questions and concerns that self-regulation by online platforms would not be effective in ensuring more relevant fairness and transparency (Cauffman, 2016). Limiting EU

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² The terms “digital platforms” and “online platforms” are used interchangeably in this paper

action to only self-regulation of these platform would essentially rely on the platform industry's own incentives and willingness to change the status quo. As noted by European institutions (European Parliament, 2018) this type of relationship can be exploited by the platform, and some legislative steps in this regard were taken. The result is the EU's Regulation 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 ("P2B" Regulation) that entered into force in July 2020. The Regulation introduced a number of obligations for online platforms.

This research contributes to the growing debate about how to regulate digital platforms. The research is not about consumer protection although it does relate to the question how to enhance trust of European citizens in the digital world that has been increasingly "ruled" by large digital platforms. This research is about the digital platforms-to-business (P2B) relationship in regard to ranking. The focus of the research is information asymmetry in algorithms at digital platforms Airbnb and Booking.com in regard to key parameters set unilaterally by both platforms. Algorithmic decisions leading to ranking of an accommodation have a considerable impact on the revenue of business users and, indirectly on consumer choice as well. In line with the findings in this research, the paper looks at the EU regulatory approach and the relevant provisions in relation to ranking.

2. DATA, RESEARCH AND KEY DEFINITIONS

2.1. Data and research

The conceptual viewpoint of this paper is at the intersection of the EU's competition and consumer policy. The research was carried out in the beginning of November and December 2020, and in January 2021. The search for an accommodation on both platforms and listing a property on both platforms generated relevant data. These data have been analyzed from the viewpoint of the latest EU legal texts in regard to ranking and highlighting information asymmetries vis-à-vis business users at both digital platforms. The data that were generated by listing a property on both platforms and searching for accommodation at both platforms shed new light on the practices of online platforms and provides a deeper look into algorithmic decisions at two largest online platforms for short-stay accommodation, Booking.com and Airbnb.

2.2. Key Definitions

What is an algorithm? Any algorithm consists of a sequence of steps intended to produce a desired outcome through algorithmic decisions (Cobbe and Singh, 2019). Any kind of software consists of one or more algorithms (Autorite de la concurrence and Bundeskartellamt, 2019). According to the Article 2(8) of the P2B Regulation, the term "ranking" can be thought of as a form of data-driven, algorithmic decision-making. When digital platforms present, organize or communicate information on accommodation services for consumers, they "rank" results on the basis of certain parameters. Online platforms that connect travelers to the providers of accommodation are called peer-to-peer platforms (P2P) and they operate as two-sided markets bringing together demand and supply. On the demand side are consumers (guests or travelers) and on the supply side are accommodation providers³; both supply and demand participants are called platform peers (European Commission, 2017). Online platforms monetize the use of the under-exploited resources of the suppliers. A digital platform is the "matchmaker" that is de-

³ The terms "accommodation provider", "business user" and "host" are used interchangeably in this paper.

defined by the P2B regulation as the “provider of online intermediation services” to business users. A provider of online intermediation services is defined in Article 2(3) of the P2B regulation as “any natural or legal person which provides, or which offers to provide, online intermediation services to business users” (p.68). Online intermediation services are, according to the Article 2(2), services which constitute information society services within the meaning of point (b) of Article 1(1) of Directive (EU) 2015/1535 of the European Parliament and of the Council. Information society services are characterized by the fact that they aim to facilitate the initiating of direct transactions between business users and consumers, irrespective of whether the transactions actually happen. Airbnb and Booking.com meet all the requirements to be considered as providers of online intermediation services which constitute information society services. Second, both online intermediation services enable business users to offer services to consumers by facilitating the initiation of direct transactions between them. Third, their online intermediation service is provided on the basis of a contractual relationship between the online intermediation service (platform) and the accommodation providers which offer services to consumers.

On the supply side of this peer-to-peer market is a seller of accommodation services (accommodation provider), such as hotels, small and medium businesses, micro-entrepreneurs and individuals. P2B Regulation defines the peer on the supply side, the accommodation provider, as business user of the online platform. A business user is any legal person or private individual, acting in a commercial or professional capacity who, through online intermediation services, offers goods or services to consumers for purposes relating to their trade, business, craft or profession.

3. MOTIVATIONS TO PARTICIPATE

3.1. Consumer (traveler)

Online platforms reduce transaction costs and provide information and pricing efficiencies (Edelman and Geradin, 2016). Internet plays a role in this as it makes it easy to find and compare products and services around the world (European Commission, 2016). When searching for accommodation online, one of the filters provided by online platforms for vacation rental is price. Price is high on the list of motivations when deciding upon a particular accommodation. It has been established (Guttentag et al, 2017) that Airbnb’s comparatively low cost has been the top motivation for travelers to choose Airbnb as a platform through which they want to book an accommodation. It can be inferred that looking for a cheap accommodation is in line with the growing inequality in the EU (European Commission, 2015) as many travelers choose cheaper options for their vacation. Private accommodations listed on online platforms are generally cheaper than hotels (Bivens, 2019).

3.2. Accommodation providers, business users of digital platforms

According to the European Commission (2016) motivations that lead individuals to participate in “sharing” on online platforms are many. The European Economic and Social Committee (2014) found that the new trend towards collaborative consumption represents great alternatives in times of crisis. The European Parliament (2018) found that some owners are letting out their second homes or apartments for short-term lets for tourists because they find it more profitable than to rent their houses long term to residents.

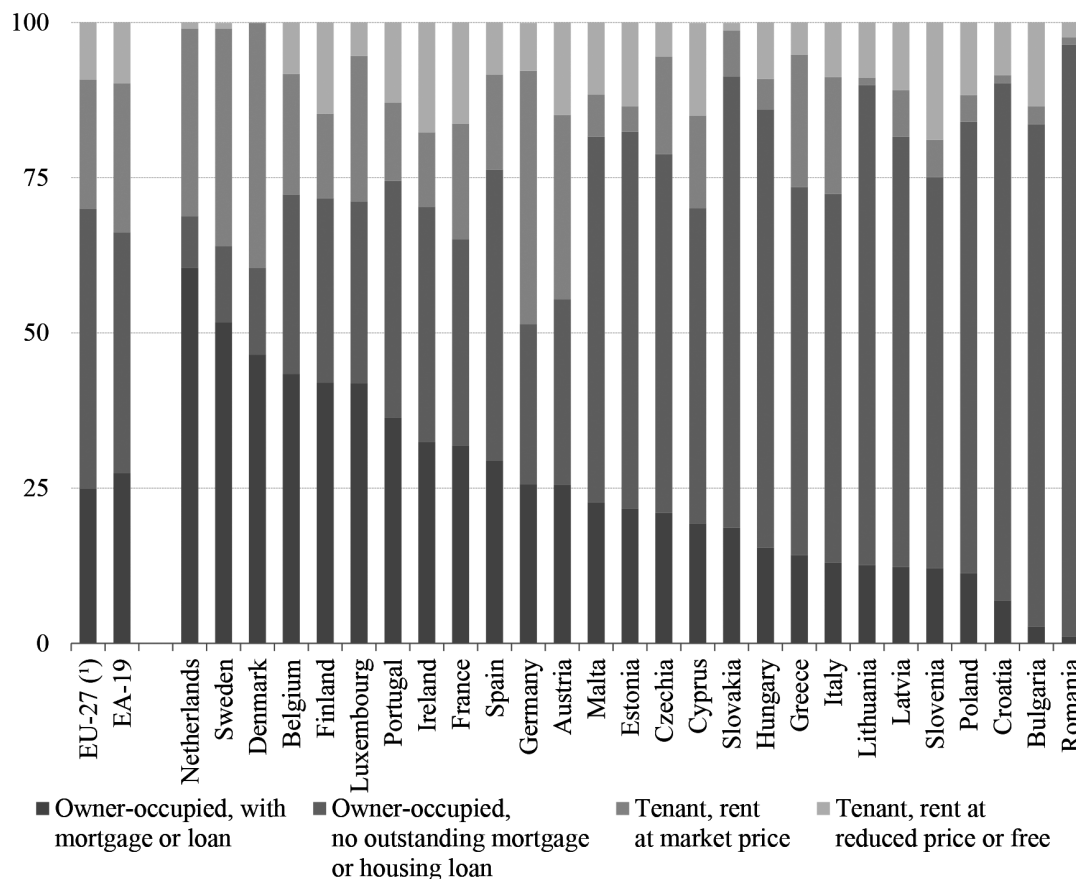


Figure 1. Distribution of population by tenure status in the EU, 2018 (%)

Data source: Eurostat, 2020

The “boom” of sharing economy has been influenced by the economic crisis, when people had to find alternative means of income as they lost their jobs (Henten and Windekilde, 2015). Economic reasons for listing a property on online platforms comes from the fact that owners of an unused dwelling can earn substantial income by renting out their spare accommodation (Jung, 2019). Some countries in the EU have a high share of ownership of houses, flats and similar (Figure 1) and some of them have a significant number of second homes that are unoccupied or reserved for seasonal or secondary use, such as holiday homes (Eurostat, 2020). In 2011 there were 23 (out of the -315) regions in the EU where the share of unoccupied dwellings rose to 50 % or more. Almost half of these were in Greece (Eurostat, 2020a) and many were popular holiday or summer destinations. “Sharing” an accommodation became an important source of self-employment and income in tourist destinations such as Greece, especially during and after the last global financial crisis. In countries with a high share of second homes, it is likely they will use spare dwellings to earn an additional income.

3.3. Digital platforms

Digital platforms’ motivations are purely commercial which can be seen from their business models (Table 1). Airbnb and Booking.com are giants in regard to the opportunities they can provide for short-term vacation accommodation. Both platforms make money from fees they charge to the accommodation provider and/or travelers.

Table 1. Key elements of digital platforms' business model
in relation to platforms' business users (accommodation providers)

Aspect	Airbnb	Booking.com
Fee payable by accommodation provider to online platform per each actualized reservation	Typically 3%*	15%-30%
Fee payable by guest to online platform per each reservation transaction	From 6 – 12%*	/
Revenue model: fee charged to one peer only (accommodation provider)	No*	Yes
Reviews by host	Yes	No
Reviews by guest	Yes	Yes
Payments' timing to the accommodation provider	Within 24 hours after guest checks-out	If the accommodation provider has an agreement with Booking.com that the company administers the payment process, Booking.com pays net revenue per guest's stay to the accommodation provider's bank account about 10 to 14 days after guest checks-out
Payments handled by	All payment through Airbnb. Some exceptions allowed [1]	Optional. Booking.com (via bank transfer to the accommodation provider's bank account) or accommodation provider (direct cash payment or credit card payment by guests if accommodation provider can charge credit card at the property)
Security deposit	Optional	Owner handles

Note: *There are some exemptions from the rule

Data source: Author's compilation of information from Airbnb's and Booking.com's websites

Airbnb's business model is to charge the accommodation provider a relatively modest 3% commission per stay (unless otherwise specified), and to charge guests a booking fee from 6 to 12% per stay (unless otherwise specified) (Airbnb's Terms of Service). The company looks after all payments and payment procedures. Cash payments by guests are typically not allowed. Airbnb pays the net revenue to the owner's account within 24 hours after the guest checks out. Airbnb does not charge anything for the processing of the payment.

On the other hand, Booking.com business model is that it does not charge any fee to guests but it does charge a hefty fee, typically minimum 15% to accommodation providers. In terms of payments for the stay at accommodation, Booking.com has a few options. The money can be collected from guests by the accommodation provider via credit card or cash. After the Booking.com issues its invoice to the accommodation provider, the latter pays the invoice in the amount of the fee for Booking.com's service. The other option is, if the accommodation provider cannot charge guests' credit card at the property, to have an agreement with Booking.com so that Booking.com handles the whole payment process (Figure 3). In that case, in addition to its fee per each actualized guest's reservation, Booking.com also deducts a service charge of about 1,4% per stay. This service charge is for administering the payment to the accommodation owner's bank account. Booking.com makes a transfer of the net revenue per guest's stay to the accommodation provider's bank account about 10-14 days after the guest checks-out.

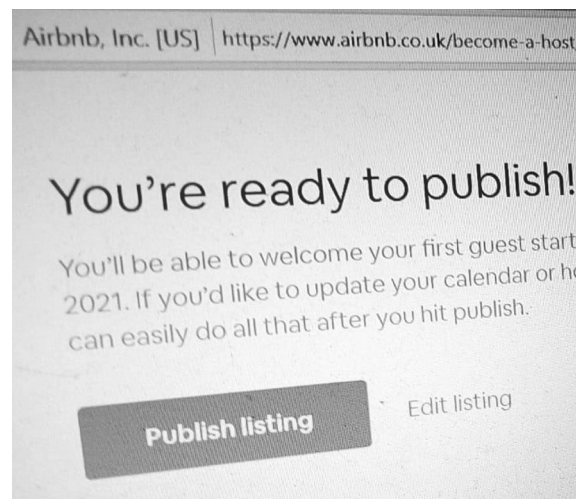


Figure 2. Airbnb – Listing published

Source: Author's screenshot from Airbnb's website after registering a hypothetical property on Airbnb's website

The Airbnb has made it very easy to list an accommodation on its website (Figure 2). Airbnb's revenue model is such that basically all payments, with only few exceptions for payments in person (Airbnb's Terms of Service)) are taken care by Airbnb. At Airbnb you can list your property and put all relevant information into their online registration procedure in a few minutes and also do all the verification requirements in the same day. Airbnb's website is therefore very user friendly to register and provide bank account information to where the payment should be made, anywhere in the world. On the other hand, Booking.com has a complicated and cumbersome procedure if the accommodation provider's property is in one EU country and his/her bank account is in another EU country. So, if an accommodation provider has an agreement with Booking.com to handle the whole payment process, it may take weeks for Booking.com to enable its system to register the accommodation provider's bank account (if it is in another EU country, different from where the accommodation is).

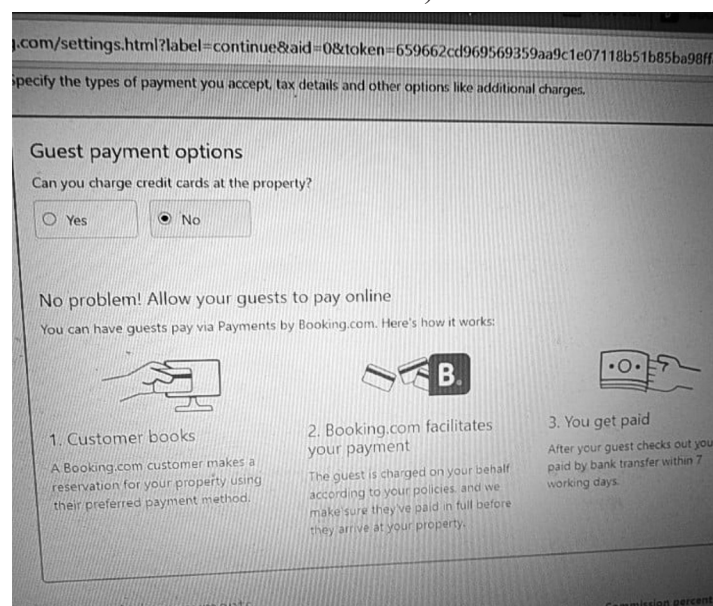


Figure 3. Booking.com – payment options

Source: Author's screenshot from Booking.com's website in the process of listing a hypothetical property on Booking.com's website

4. ALGORITHMS FOR DEFAULT RANKING IN SEARCH RESULTS

When travelers look for accommodation, their basic search is usually about their chosen parameters, such as the date of travel, number of people travelling, a particular place of travel (country, city, island, mountain etc.). Travelers may see an array of accommodations set out and grouped in many different ways when they look at any page on a digital platform's website. Algorithmic sequencing of results in response to a search query is a way of how accommodations can be presented as part of a ranking mechanism communicated by digital platforms.

In addition to “default” ranking of accommodations that travelers may navigate at the most basic level and basic search query, travelers may also have other criteria for their accommodation, such as the price of an accommodation, parking place, view, amenities, location etc. When travelers apply these criteria as different filters on digital platforms, they get search results, based on the required criteria, displayed in a new, particular ranking order, different from the default ranking.

The position in the ranking of an accommodation in search results is meant to differentiate and select the most relevant results for travelers. Hence some level of differentiation is therefore logical, as has been already established (Graef, 2019). However, the position of an accommodation in search results is not dependent upon search criteria chosen by a traveler only. There are other parameters that affect the position of an accommodation provider in a ranking. These other parameters are set by digital platforms unilaterally (e.g. fees that have to be paid to the platforms) or are produced at digital platforms (e.g. guest reviews) and/or are generated by platforms' algorithms (e.g. dynamic pricing). These parameters are outside of the accommodation providers' influence but they can crucially determine their financial success and also impact on travelers' choice.

The financial revenue of a business is directly influenced by the visibility it gets (European Commission, 2018) on online platforms. Hence a business would typically want to be ranked high in search results in order to receive more attention by travelers. Accommodations that appear at the top of search results get considerably more bookings than listings lower down the page. The top five search results attract about 88% views, while there are only about 1% views beyond the 10th place in a search. Accommodation providers are aware that the position of their listing in search results is crucial for their business turnover and the likelihood of success. Accommodation providers have to navigate between the demands of guests and the suggestions and algorithms of Booking.com and Airbnb. The stress and uncertainty that they experience when dealing with guests and when dealing with Booking.com's or Airbnb's algorithms has been described by some researchers as “algorithm anxiety” (Jhaver, Karpfen and Antin, 2018).

A search for accommodation for one person was carried out at the Booking.com's website in mid-January 2021. The search only specified the date of stay (April 2021) and the city of stay (Thessaloniki, Greece). Booking.com displayed search results in default ranking based on the personal search as per above criteria, without any other filters. The search results in default ranking of accommodations were neither ranked by price nor by accommodation score (overall rating) or by the number of guest reviews of the accommodation. More data were generated by searching for accommodation with the same search parameters, adding a new parameter, a price filter. The search results that were displayed at Booking.com's website were again ranked neither by price nor by accommodation's score (overall rating) nor by the number of reviews an accommodation received. When searching for accommodation on the Booking.com's website there are some additional op-

tions that a traveler can choose. A traveler can scroll through this default ranking or choose and add various additional filters and sort by alternative criteria to receive a subsequent ranking based on additional search criteria. There are many algorithms used to produce ranking results based on the choice among additional search criteria such as “top picks for solo travelers”, “entire homes and apartments”, “prices (lowest first)”, “review score and price”, “stars” and others, such as “distance from city center” and “top reviewed”. Apart from “distance from city center” and “prices (lowest first)” where the ranking of displayed search results was logical and clear to the criteria chosen; clicking on other icons, search results were not ranked by price, nor by the number of guest reviews or by the overall accommodation score by guests who submitted their review of the accommodation. It seems that the algorithms that produce ranking of accommodation might be considerably influenced by parameters other than price, guest reviews or overall accommodation score. Among these other important factors are fees paid by accommodation providers to the digital platforms.

Accommodations displayed in search results at Airbnb, based on the same basic search parameters as at Booking.com’s website, were neither ranked according to the price nor according to the score of the accommodation (overall rating), nor by the number of reviews an accommodation received until that moment. When adding a particular criterion to the search such as price filter (accommodation up to a certain amount) accommodations displayed in default ranking were no longer ranked by price nor by the score of the accommodation (overall rating) nor by the number of reviews an accommodation received.

Although all parameters that influence the position (ranking) of an accommodation in search results, are stated in the Airbnb and Booking.com’s terms of service on both platforms’ websites, not all is done in line with P2B regulation. Article 5(1) of the P2B Regulation states that providers of online intermediation services shall set out in their terms and conditions “the reasons for the relative importance of those main parameters as opposed to other parameters”, which is not explained anywhere on the websites of both platforms. Hence, from the explanation at both digital platforms’ websites one could conclude that it is not clear which parameters in their algorithms are more important than others and why. Second, Article 5(3) states that where the main parameters include the possibility to influence ranking against any direct or indirect remuneration paid by business users to the digital platform, that platforms shall also set out a description of those possibilities and of the effects of such remuneration on ranking. There is no explanation of that to be found on both platforms’ websites.

5. DYNAMIC PRICES IN ALGORITHMS DETERMINING RANKING

The financial success of accommodation providers is influenced by the visibility they get online. Accommodations that appear at the top of search results typically get more bookings. Search results depend on a traveler’s search criteria and on parameters in algorithms set by digital platforms. In addition to key parameters unilaterally set by digital platforms (e.g. fees) there are some other, specific parameters that are also included -in algorithms determining ranking. Accommodation providers should provide as speedy and easy booking process as possible, otherwise their listing will be ranked lower in search results, so they may get fewer reservations (Figure 4). Allowing easy and speedy results (without proper ex-ante requests sent by potential guests) is therefore a parameter influencing ranking at Airbnb’s website.

Airbnb aims to persuade an accommodation provider to lower its price (Figure 5) and to choose a dynamic pricing option (Figure 6), the option that gives, albeit within a certain range, the

power to Airbnb to determine a nightly price of accommodation by using its algorithm. It is impossible for the accommodation provider to inspect and verify this algorithm.

The most common parameters that influence ranking and are, at least in part, set unilaterally by both digital platforms, as summarized in Table 2 below:

Table 2. Key parameters in algorithms set by both platforms

Aspect	Airbnb	Booking.com
'Dynamic pricing'	Yes	No
Guest reviews in ranking of accommodation	Yes	Yes
Guest reviews in dynamic pricing	Yes	No
Fee paid	Yes	Yes

Data source: Author's compilation of information from Airbnb's and Booking.com's websites

In relation to the case Airbnb Ireland C-390/18 (Judgement of the Court as of 19 December 2019, Case C 390/18) at the Court of Justice of the European Union, the Advocate General in his Opinion delivered on 30 April 2019 stated that in the case of short-term accommodation, the price does not play such a significant role and that there are other, economically significant aspects, such as a location and standard of accommodation which are of major significance in the case of such a service (Opinion, para 71, p.17). Further he writes that "it would be difficult to assert that an average client seeking for accommodation in a particular place decides to choose the cheapest available accommodation. I would dare to say that even if Airbnb, to some extent, influenced the price, the question of whether this would amount to exercising decisive control over the conditions of the provision of accommodation services would be still open" (Szpunar, 2020, p.405).

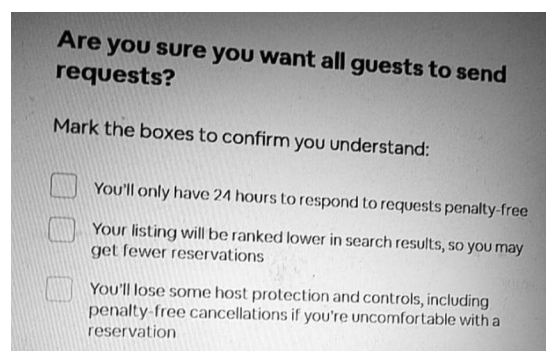


Figure 4. Airbnb – what influences ranking

Source: Author's screenshot from Airbnb's website on booking policies in the process of listing a hypothetical property on their website

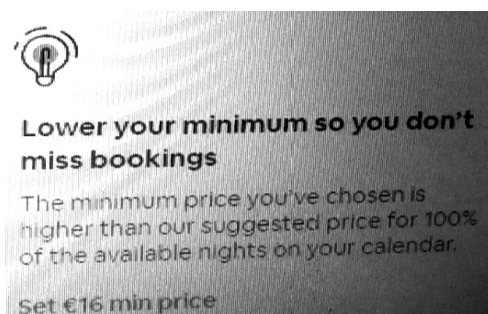


Figure 5. Airbnb – influencing price

Source: Author's screenshot from Airbnb's website on nightly price in the process of listing a hypothetical property on Airbnb's website

Hosts that have their properties listed on the Airbnb website would most probably not agree with the conclusions of the Advocate General Maciej Szpunar. If a host chooses a dynamic pricing option, which Airbnb recommends, it is Airbnb's algorithm that decides a particular price for a particular guest's stay, regardless of the fact that the highest and the lowest limits are set by the accommodation provider. A property owner who wants to have their property listed on the Airbnb website, has to agree to terms and conditions unilaterally set by the Airbnb. In relation to Booking.com that charges minimum 15% for its service, Airbnb with its typically 3% fee is much more attractive for property owners. Therefore, recommendations by the Airbnb may have a stronger effect on behavior of the accommodation provider. The Airbnb suggests (Figure 5) to the accommodation provider to "Lower your minimum so that you don't miss bookings" and continues with "The minimum price that you have chosen is higher than our suggested price for 100% on the available nights on your calendar". The owner gets a tip from Airbnb what the lowest price should be, based on "the prices in the area for similar accommodation."

A dynamic price setting, called "Smart Pricing", means that hosts set the highest and the lowest limit for the nightly stay at the accommodation but the actual price of a stay can be anywhere in between the limits and it is an Airbnb's algorithm that chooses the actual price for a particular stay. The owner has to trust the Airbnb's algorithm that allegedly knows exactly what is happening with the demand in the neighborhood so that it can adjust its price "dynamically" and accordingly.

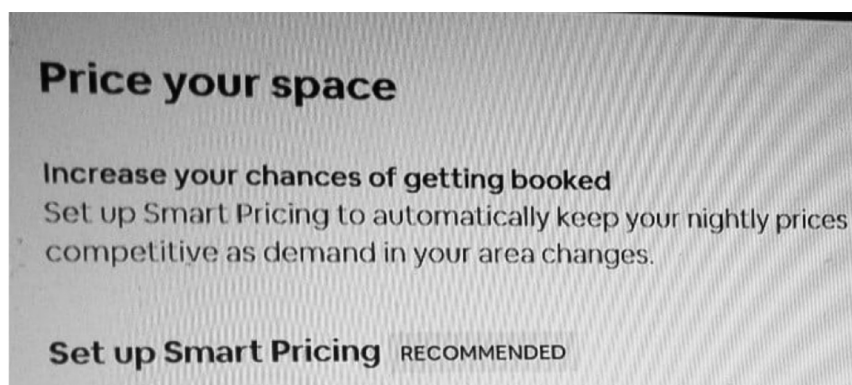


Figure 6. Airbnb – "Price your space"

Source: Author's screenshot from Airbnb's website on setting up smart pricing in the process of listing a hypothetical property on Airbnb's website

6. EU REGULATORY APPROACH AND ITS LIMITATIONS

6.1. Regulatory approach

One of the goals in the Digital Single Market Strategy, adopted in 2015, was to create a fair and competitive digital economy where companies can compete on equal terms and use digital technologies, products and services to improve their productivity and global competitiveness, while consumers can be, at the same time, confident that their rights are respected. The European Commission has been generally very friendly towards digital platforms. Most regulatory institutions in the EU were reluctant to take public intervention about digital platforms for many years. That has changed in the last few years. The change happened when platforms in many areas grew so big that they became "superdominant" and their behavior against their small-businesses became non-transparent and anticompetitive (Di Porto and Zuppetta, 2020). In recent years it has been acknowledged that the digital platforms require a new approach and

as some researchers have put it, the question is not if urgent regulatory reform is necessary, the question is how it should be implemented (Marsden and Podszun, 2020).

Since some of the issues in regard to the operation of digital platforms could not be solved within the EU competition law or within the EU consumer law, new legislative steps had to be taken. The result is the EU's Regulation 2019/1150 ("P2B Regulation"), that was followed by the Guidelines on ranking transparency pursuant to Regulation (EU) 2019/1150 of the European Parliament and of the Council ("Guidelines"). According to the European Commission, the purpose of measures in P2B Regulation is to contribute to the properly functioning of the internal market by establishing rules to ensure that business users of online intermediation services are given appropriate fairness, transparency and effective redress possibilities. In regard to suitable and effective possibilities to redress, providers of online intermediation services should ensure an internal complaint-handling system which has to be based on principles of transparency and equal treatment. To ensure the effective application of P2B Regulation organizations, associations representing business users or corporate website users, as well as certain public bodies set up in EU member states, should be granted the possibility to take action before national courts in accordance with national law, including national procedural requirements. All EU member states should ensure adequate and effective enforcement of this regulation.

Online intermediation services typically have a global dimension. The P2B Regulation applies to providers of online intermediation services regardless of whether they are established in the EU or outside the EU, if through their provision, online services are provided to consumers located in the EU. The Regulation is in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on the European Union. Since providers of online intermediation services tend to use pre-formulated terms and conditions, the P2B regulation applies where the terms and conditions of a contractual relationship are unilaterally determined by digital platforms. Terms and conditions must be drafted in plain and intelligible language.

The P2B Regulation in Article 2(8) defines ranking as the relative prominence given to the goods or services offered through online intermediation services, as presented, organized or communicated by the providers of online intermediation services irrespective of the technological means used for such presentation, organization or communication. Article 5(1) of the P2B Regulation stipulates that providers of online intermediation services shall set out in their terms and conditions the main parameters determining ranking and the reasons for the relative importance of those main parameters relative to other parameters. The Article 5(3) obligates online intermediation services to set out a description of those possibilities where the main parameters include the possibility to influence ranking by any direct or indirect remuneration paid by business users. The paragraph 5 of Article 5 says that the descriptions referred to in paragraphs 1 and 2 shall be enough to enable business users to obtain an adequate understanding of whether, and if so how and to what extent, the ranking mechanism takes account of the characteristics of the services offered to consumers through the online intermediation service and the relevance of those characteristics for those consumers. Article 5(6) of P2B Regulations stipulates that providers of online intermediation services shall, when complying with the requirements of this article, not be required to disclose algorithms or any information that, with reasonable certainty, would result in the enabling of deception of consumers or consumer harm through the manipulation of search results.

In the beginning of December of 2020 the Guidelines on ranking transparency pursuant to Regulation (EU) 2019/1150 of the European Parliament and of the Council were published. The

purpose of the guidelines is to assist digital platforms in applying the requirements in P2B Regulation. Since the Guidelines are not legally binding, it is digital platforms' own responsibility to ensure compliance with Article 5 of the P2B Regulation while it is only the Court of Justice of the EU to interpret the requirements.

6.2. Limitations

In the last few years there has been a lot of debate about how to regulate digital platforms as they have produced concerns about negative externalities, fairness, transparency, tax conformity, privacy breaches, pricing pressures and review and rating asymmetries. The introduction of P2B Regulation in 2019 and its enforcement in 2020 came rather late considering the expansion of online platforms in the last 15 years. The Guidelines that were to accompany the P2B Regulation, were published in December 2020, about 5 months after the P2B Regulation became effective.

According to the European Commission's explanation on its website, the P2B Regulation that has been applied from 12 July 2020 in all EU member states, aims to achieve more fairness and new transparency between online platforms and their business users. However, as some researchers have already noted, the P2B Regulation is not really about fairness (Graef, 2020). That is very clear from the Guidelines which say in 1.2 (14) that although there is no limit in choice of the ranking providers may want to use, the aim of the Article 5 is to improve predictability for users considering that businesses do "not always know the reasons for their performance in ranking and if they could perform better, potentially with the help of paid ranking." (p.4)

In most of its provisions the P2B regulation only gives guidance to online platforms about how to be transparent in stating and describing main parameters they use to determine ranking. That stems from the Guidelines following the P2B Regulation. The objectives of the Guidelines (under 1.3) and their explanation about the nature and scope of the requirements of Article 5 (under 2., especially 2.1.2.: Describing ranking), followed by 3 (What are the main parameters and how to select them) say that the aim of the regulation is to obligate online platforms just to state what parameters they use to determine default ranking in search results. Information obligations, such as transparency information in P2B regulation and the Guidelines do not restrict the scope of action of the obligated digital platforms.

Therefore, transparency only, without obligations to act in regard to revealing how those parameters are set relative to other parameters, what their relative weight in algorithms and what their influence is (especially the level of fees) on ranking, does not create incentives to change particular behavior. The transparency requirement is, therefore, not sufficient. As some researchers noted (Cornils, 2020) transparency only is not an appropriate regulatory instrument. P2B regulation does not prohibit any practices nor prescribe any conduct. In spite of the fact that the Commission praises P2B regulation as the first of its kind anywhere in the world, the regulation lacks vision about how digital platforms operate. Digital platforms have a strong information asymmetry against their business users, which digital platforms can profile and exploit and discriminate among and against them (Di Porto and Zuppetta, 2020). On the other hand, these online platforms dominate large travel markets through powers produced by algorithmic decisions, generated by a large amount of data.

However, online platforms are not required to disclose the detailed functioning of their ranking mechanisms, including algorithms because, according to the regulation, a general description of

the main ranking parameters should provide business users with an adequate understanding of the functioning of ranking in the context of their use of specific online intermediation services. The Guidelines specifically say (under 1.3.3/22) that in relation to the Article 5(5) of the P2B Regulation, “the users should be enabled to obtain an ‘adequate understanding’ of whether and if so, how and to what extent three particular factors are taken into account. This means that the description to be provided has to go beyond a simple enumeration of the main parameters, and provide at least a ‘second layer’ of explanatory information. Providers could, for example, consider describing the company-internal ‘thought process’ that was used for identifying the ‘main parameters’, as a way to also derive the ‘reasons for their relative importance’.” (p.5)

It is highly unlikely that a general description of main ranking parameters, as envisaged in the Guidelines give sufficient understanding to business users about key ranking questions. In line with the findings in this research, looking at the Booking.com and Airbnb’s website from their business users’ perspective, although the most important ranking parameters are stated in platforms’ terms and conditions, there is no explanation of the relative importance of individual parameters. There is also no exact explanation to what extent a fee influences the ranking nor how exactly guest reviews affect ranking. Just stating the most important parameters in platforms’ terms and conditions, as envisaged by the P2B Regulation, does not provide any real value-added information critically relevant for a digital platform’s business user who has his/her property listed on digital platforms.

The P2B Regulation with its transparency approach and limited ex-ante regulatory strength is not concerned whether the principles and criteria for ranking at online platforms are adequate or not and whether those criteria, parameters and similar are applied rightfully and in a non-discriminatory manner or not. The regulation only requires that the parameters and conditions are stated in plain and clear language. Therefore, the main regulatory “achievement” of the P2B Regulation is to obligate online platforms to state key parameters that determine ranking in the general terms and conditions. In this respect, the Regulation provides information obligations only, and although the Regulation envisages the possibility of internal complaints and mediation, there are no adequate ex-ante enforcement mechanisms.

For a business user, especially for small and medium companies, micro-entrepreneurs and individuals, for example, general explanation of key parameters does not reduce information asymmetry, as a typical business user would like to know how parameters, that are out of his/her reach and influence, impact the position of his/her accommodation in search results. Legal obligation to state the general criteria of the ranking mechanism, as well as conditions that allow business users to influence their position in ranking against payment, is not enough. Transparency in stating the most relevant parameters for ranking does not in any way prevent large digital platforms to manipulate algorithms in order to manage rankings. In that respect this EU Regulation does not significantly rebalance information asymmetry and unequal bargaining power of platforms vis-à-vis their business users, especially small and medium businesses, micro-entrepreneurs and individuals.

7. CONCLUSION

The P2B Regulation seems too little, too late. A number of limitations undermine the aim and the effectiveness of the regulation. Most notably, it is not clear to what extent online platforms are required to provide detailed workings of their ranking mechanisms. Although the most

important ranking parameters in Airbnb's and Booking.com's terms and conditions are stated on their websites, there is nowhere an explanation of the relative importance and weighting of individual parameters. It is not clear how exactly digital platforms set fees and some other parameters in algorithms which determine ranking in search results. There are also intertwined and mutually reinforcing parameters related to dynamic prices and guests' reviews that determine algorithms' decisions and produce search results for travelers.

This research confirms that many issues around fairness in regard to the relationship between online platforms and business providers have not been made clearer by the P2B Regulation and its Guidelines.

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