| RESEARCH ARTICLE

Discrimination on Sharing Economy Platforms: A Systematic Review of Cases and Coping Strategies

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| ABSTRACT

This paper presents a systematic review of empirical research on the phenomenon of discrimination on sharing economy platforms. Sharing platforms such as Airbnb, Uber, and BlaBlaCar have recently become notorious as hotbeds of digital discrimination. Difficult to detect and deter, digital discrimination describes the state when an online transaction is influenced by the race, gender, age, or other non-business characteristics of providers or consumers. Four key themes emerged from our analysis: forms of discrimination, domains (industries), outcomes and coping strategies. There is strong evidence of bias on both the demand side (consumers, guests) and the supply side (providers, hosts) and across domains such as accommodation sharing, ridesharing, skills sharing, and peer-to-peer lending. We propose a framework to organize the existing studies and guide future research and practical solutions to reduce inequality on online platforms.

1. Introduction

Sharing economy (SE) platforms are online businesses prioritizing the peer-to-peer shared use of idle resources in contrast to the transfer of ownership (Tushev et al., 2021). Forming a two-sided market that aims at an optimum match, customers who demand service are connected with the suppliers (Mejia & Parker, 2021). This business model has proven to be sustainable, disrupting traditional markets in the domains of lodging (Airbnb, Couchsurfing), intercity (BlaBlaCar, Fahrgemeinschaft.de), and intracity (Uber, Lyft, Didi Global) transportation, and small, local tasks (TaskRabbit, MyHammer). According to Absolute Reports, in 2022, the size of the sharing economy market worldwide has reached USD 149,939.7, and it is forecasted to exhibit a Compound Annual Growth Rate of 32.01% to reach USD 793,680.0 million by the year 2028 (Yahoo! Finance, 2023).

Such peer-to-peer exchanges are especially appreciated by low-to-middle-income users for facilitating labor opportunities and generating income (Schor, 2017), as well as for gaining access to additional earnings and otherwise unattainable resources. Given that transactions with strangers are distinguished by high uncertainty, information disclosure like profile picture, name, apartment/car photo, or preferences is typical for the online environment. However, recent research has spotted the flip side of this information availability, pointing to discrimination issues in SE markets.

Defined as "the practice of treating someone or a particular group in society less fairly than others" (Oxford English Dictionary, 2019), discrimination easily transitioned from offline to online domain. Digital discrimination refers to a phenomenon of unfavorable treatment in an online transaction affected by race, gender, age, or any other nonbusiness-related characteristics of participants (Tushev et al., 2022). In traditional markets, discrimination is tackled through anti-discrimination legislation. For example, Germany's General Equal Treatment Act (AGG) or the U.S. Civil Rights Act of 1964 prescribes equal treatment at work and

everyday life, such as in buyer-seller relationships, when renting an apartment or booking a hotel. In online space, however, discrimination takes a different form that is often difficult to detect and deter.

On Airbnb, for example, non-Black hosts charge nearly 12% more than Black hosts for comparable rentals (Edelman & Luca, 2014). Applications from guests with African-American-sounding names are 19.2 percentage points less likely to be approved than requests coming from guests with white-sounding names (Cui et al., 2020). In Germany, drivers with Arabic/Turkish/Persian names attract less demand (measured in clicks) than those with typical German-sounding names. To get the same number of clicks, Arab/Turkish/Persian drivers would have to offer rides on average €4.20 cheaper than German drivers (Tjaden et al., 2018).

This paper presents a systematic review of empirical studies on discrimination happening on sharing platforms. Building on PRISMA guidelines, we analyzed evidence across disciplines and the SE context. We contribute to the academic literature in IS, Operations Management and Computer Science that study inequality in online markets and ways to mitigate them (Cui et al., 2020; Zhang et al., 2022; Tushev et al., 2022) by delivering a comprehensive overview of digital discrimination from a socio-technical perspective. For practitioners, our summary serves as an appeal to attenuate discriminatory behavior and to improve intergroup relations and operational efficiency.

The remainder of the paper is structured as follows: Section 2 familiarizes the reader with the search procedure. Section 3 presents quantitative (bibliometric) and qualitative results. We discuss our results before we conclude our article by outlining contributions and limitations in Section 4.

2. Method

Following the PRISMA guidelines (prisma-statement.org, 2024) and recommendations by vom Brocke et al. (2015), we have conducted a systematic literature review. We started with the Google Scholar database and performed the keyword search using Publish or Perish software (Harzing, 2007) in November 2023 using the terms:

("discrimination" OR "bias")

AND

("sharing economy," "sharing platform", "ridesharing," "ride sharing," "online platform," "Airbnb").
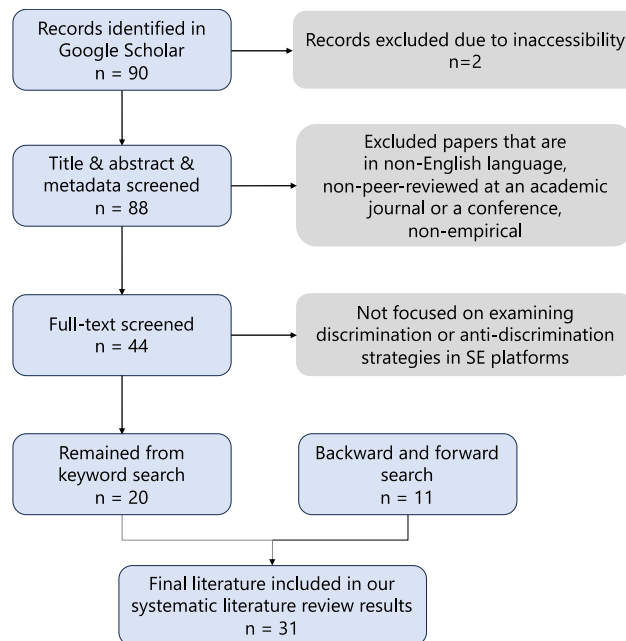

Figure 1. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)

The search was initially kept broad. After removing duplicates, we obtained 90 papers and screened their titles and abstracts using the following criteria. Two papers were inaccessible. Next, we screened the title, abstract, and paper's metadata to include records that were (1) published in the English language, (2) peer-reviewed at an academic journal or a conference, and (3) empirical, i.e., based on data collection. As such, we excluded non-peer-reviewed works like Bachelor, Master, and Doctoral theses, working papers, Social Science Research Network preprints and books, and non-empirical research. The pioneering paper by Edelman & Luca (2014), despite being a working paper, was kept as an exception. The full text of the remaining 44 papers was skimmed to

assess whether the work is focused on examining discrimination or anti-discrimination strategies in SE platforms. After reading the full texts, we excluded papers with a different focus, e.g., mainly dealing with the representation of discrimination-related discussions on social media like Twitter. We performed backward and forward searches, browsing references and authors of the relevant papers. In sum, our final sample comprised 31 papers. The flow diagram in Figure 1 shows a breakdown of the number of studies identified, screened, and selected for the final analysis.

3. Results
3.1 Quantitative (bibliometric) analysis
We start with bibliometric analysis to display the research pattern and research activity on the topic of interest before analyzing the papers thematically. The table listing studies, their samples, and outcomes is presented in the Appendix.

Figure 2 exhibits the research output in our sample by year. The first evidence of discrimination on sharing platforms was documented in 2013 and remained rather scarce for the next three years. With 4 publications, the year 2017 marks a clear rise in academic interest, which peaks in 2019 with 7 studies published. This pattern can be linked to Airbnb's introduction of an anti-discrimination policy. Since then, we have observed 3-5 publications per year supplying new evidence on biases or bias-reducing strategies in SE.
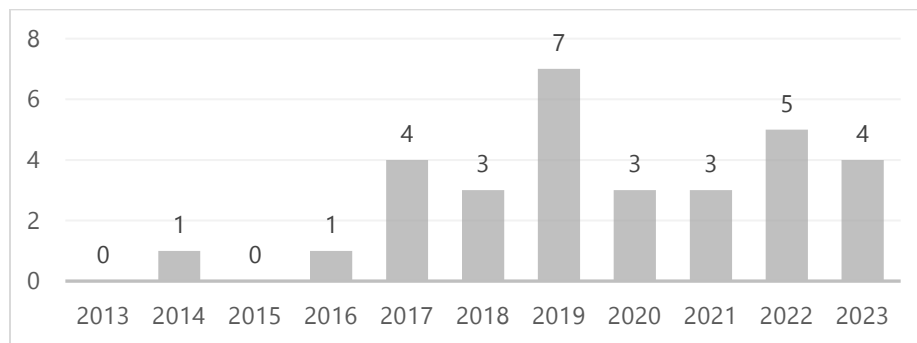

Figure 2. Publications on digital discrimination in SE by year (2013 – 2023, N=31).

Figure 3 presents the research area in the selected studies based on the field of the outlet where the study was published. The largest share of publications (29%) are coming from the Business & Management field and Sociology (23%), followed by Computer Science (13%) and Economics (10%). The topic is less popular in Psychology, Finance, Communication, Law, and Multidisciplinary outlets, with 1-2 studies in each field.
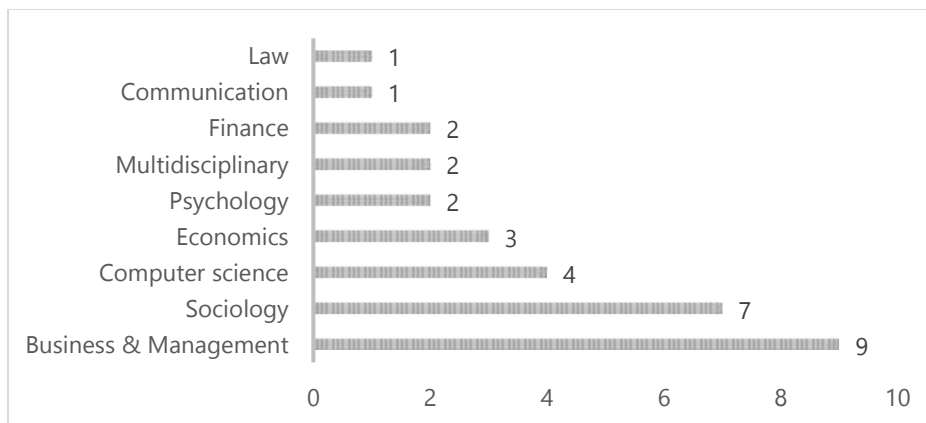

Figure 3. Publications on digital discrimination in SE by research area (N=31).

In terms of sample origin, most of the data is coming from US: 17 studies sampled transactions or conducted experiments in this country. 10 studies were conducted in Europe (4 in Germany and 3 in Hungary, Netherlands, Belgium, and the UK), and 3 studies were run in China. See Figure 4 for details.

Regarding methodology, historical data/transaction analysis (14 studies, 45%) and experiments (14 studies, 45%) are equally popular among digital discrimination scholars. Under experimental design, field experiments were applied most often (8 studies, 26%), followed by classic/vignette experiments (4 studies, 13%) and stated/discrete choice experiments (2 studies, 6%). One study reported the results of a survey, one study interviewed hosts, and one work presented a case study of Uber.
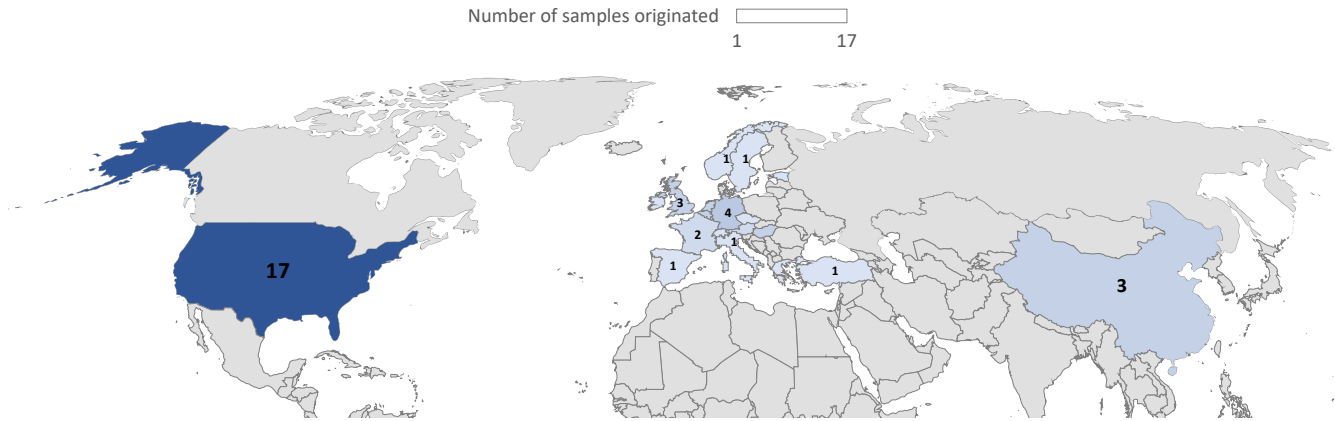
Figure 4. Number of samples coming from a respective country.

3.2 Quantitative analysis of literature

Forms of discrimination in the sharing economy. Defined as "the practice of unfairly treating a person or group of people differently from other people or groups of people" (Britannica.com, 2023), discrimination is prohibited by law in many countries when based on race, religion, gender, sexual orientation, disability or nationality or any other non-objective reason (German Federal Anti-Discrimination Agency, 2023). While none of the 31 selected papers explicitly aimed to investigate the causes of discrimination, the authors often mentioned that discrimination stems from fear, stereotypical beliefs, and misunderstanding.

In our literature sample, most studies (24 out of 31) are focused on *discrimination based on race or ethnicity*. Hereby, the treatment of typical in-groups and outgroups is compared, whereby the latter are represented by migrants. In the US, typical comparisons are made among White/Caucasian vs. African-American /Black (Laouénan & Rathelot, 2022; Goel et al., 2020) vs. Asian (Park et al., 2023) platform users. In Germany, these are people from Middle Eastern countries (Tjaden et al., 2018; Abramova, 2022), especially. Turkey, Iraq and Somali (Nødtvedt et al., 2021). In Hungary, Roma vs. Hungarians are contrasted (Simonovits et al., 2023). More rarely, the comparisons are made to users of Eastern European like Poland (Verhaeghe et al., 2023) or Russian (Simonovits, et al., 2023) or Southern European, like Italy (Liebe & Beyer, 2021) origin.

Gender-based discrimination is investigated in 12 out of 31 studies and is often tested in addition to another discriminatory characteristic. Unfavorable treatment *based on sexual orientation* is spotted for same-sex couples in Ahuja & Lyons (2019) and Mejia & Parker (2021) and reported by hosts in an interview in Farmaki & Kladou (2020). Two studies test *discrimination of disabled people*: Simonovits et al. (2023) report longer waiting times for disabled passengers, while Dai & Brady (2019) report no significant effect of disability status. Other bases for discrimination include age (Farmaki & Kladou, 2020)., and occupation in terms of salary earners vs. entrepreneurship (Cui, 2019), education (Wu et al., 2023), or social class (Moody et al., 2019).

Domains of discrimination in the sharing economy. Our systematic literature review reveals an array of domains within SE, which are vulnerable to discrimination. 42% of studies (13 out of 31) are conducted in the context of *accommodation sharing* and precisely Airbnb (e.g., Edelman & Luca, 2014; Cui et al., 2020; Laouénan & Rathelot, 2022). 35% of studies (11 out of 31) are about ride-sharing platforms (e.g., Tjaden et al., 2018; Liebe & Beyer, 2021). *Skill-sharing* platforms like Upwork, Rover, Fiverr or TaskRabbit have attracted scholarly attention in inspecting discrimination (e.g., Dai & Brady, 2019; Barzilay & Ben-David, 2016; Foong et al., 2018; Hannák et al., 2017). Finally, *peer-to-peer lending* is the context of three papers (Chen et al., 2017; Cui, 2019; Wu et al., 2023).

Outcomes of discrimination in the sharing economy. Occurring within the realm of online platforms, digital discrimination manifests through outcomes that extend beyond the digital settings. For instance, discriminatory practices exhibited by one party can directly impact the financial well-being of another party. This is observable in skill-sharing platforms, where gender discrimination is found to adversely affect metrics such as hourly wage rates (Barzilay & Ben-David, 2016; Fong et al., 2018) and total earnings (Fong et al., 2018). Similarly, in accommodation-sharing, minority groups tend to charge significantly lower prices (Laouénan & Rathelot, 2022; Edelman & Luca, 2014).

Numerous studies emphasize the indirect harmful effects of discrimination, which accumulate over time. Examples include lower willingness to transact, eventually affecting financial outcomes, reduced response rates to booking requests (Edelman et al., 2017; Park et al., 2023), the diminished likelihood of funding approval (Chen et al., 2017), and a lower number of clicks (Tjaden et al., 2018).

Digital discrimination further materializes through the peer feedback mechanism, as evidenced by prolonged durations to receive the initial review, the sentiment conveyed within peer feedback (Yu & Margolin, 2022), and the aggregate quantity of reviews (Hannák et al., 2017).

Coping strategies. While studies are aligned in their conclusions that digital discrimination occurs in SE platforms, coping strategies remain a matter of heated debate. Interestingly, only 3 studies (Park et al., 2023; Kas et al., 2019 and Goel et al., 2020) explicitly set testing of the mitigating strategy as a primary goal. Furthermore, 7 studies extended their initial inquiry to assess the discrimination existence with testing the effectiveness of at least one coping strategy (e.g., Abramova, 2022; Cui et al., 2020).

Most empirical studies, numbering 21 out of 31, are primarily dedicated to examining the mere presence of discrimination, with authors suggesting coping strategies in the discussion part. Edelman et al. (2017), Ge et al. (2016), and Liebe & Beyer (2021) advocate for reducing information available to peers before transaction. On the contrary, identity concealment is perceived negatively (Abramova 2020), and Cui et al. (2016) and Zhang et al. (2022) conclude that transparency should be increased. Peer-generated information, like reviews, even when non-positive or blank (Cui et al., 2016), can help reduce discrimination (Cui et al., 2016; Zhang et al., 2022). Self-claimed information like self-described tidiness or friendliness was estimated as ineffective by Cui et al. (2016) but as effective by Zhang et al. (2022).

In this vein, debiasing interventions suggested to SE platforms include adjusting algorithms (Park et al., 2023; Hannák et al., 2017) and setting listings instantly bookable (Yu & Margolin, 2022), which is similar to Quick Assign" option (Hannák et al., 2017). Moreover, displaying the most recent reviews to consumers is advocated to avoid punishing the workers for earlier feedback.

4. Discussion, contributions, and future research

Our aim was to systematically review empirical research on the phenomenon of discrimination on sharing economy platforms. Subsequently, we propose a framework to organize past research and guide future research and practice (Figure 5). While none of the studies address the causes of discrimination, it is often assumed that people discriminate because of prejudice and stereotypes, lack of contact with out-groups, and the availability of identity information. Our literature review suggests that non-business discrimination exists on both the demand side (consumers, guests) and the supply side (providers, hosts). Furthermore, the existence of discrimination was confirmed across different domains, i.e., accommodation sharing, ridesharing, skill sharing, and peer-to-peer lending.
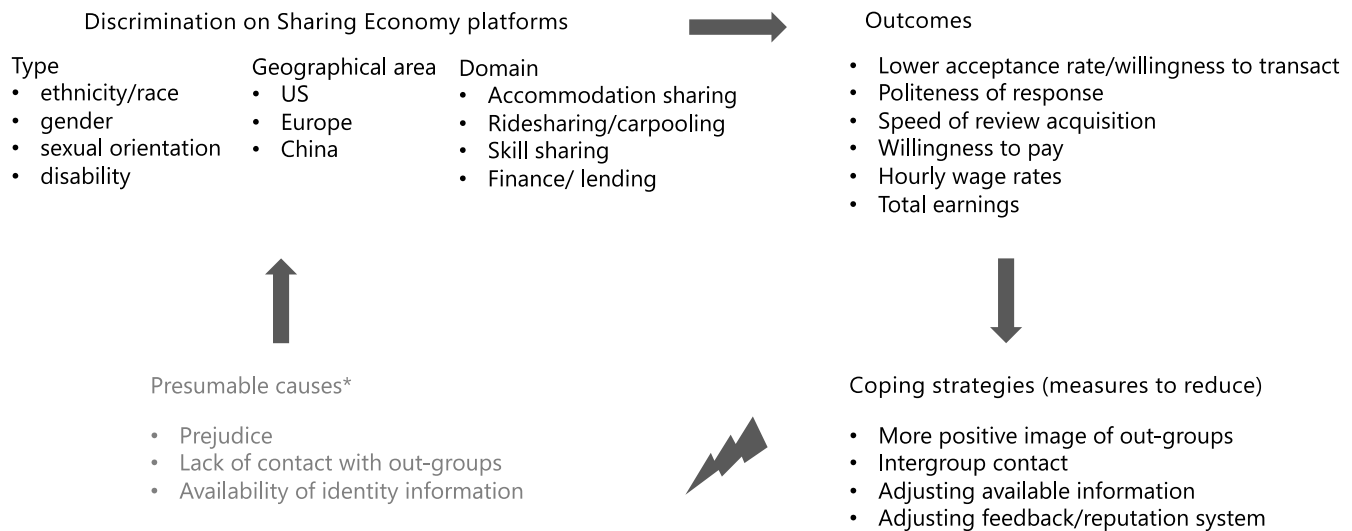
Discrimination on Sharing Economy platforms ➡️ **Outcomes**

Type
• ethnicity/race
• gender
• sexual orientation
• disability

Geographical area
• US
• Europe
• China

Domain
• Accommodation sharing
• Ridesharing/carpooling
• Skill sharing
• Finance/ lending

• Lower acceptance rate/willingness to transact
• Politeness of response
• Speed of review acquisition
• Willingness to pay
• Hourly wage rates
• Total earnings

Presumable causes*
• Prejudice
• Lack of contact with out-groups
• Availability of identity information

Coping strategies (measures to reduce)
• More positive image of out-groups
• Intergroup contact
• Adjusting available information
• Adjusting feedback/reputation system

Figure 5. Framework to organize research on discrimination on sharing economy platforms.
* - not the main focus of empirical papers in our sample.

Discrimination based on ethnicity/race was the most common, followed by discrimination based on gender. There is also evidence that sexual orientation can be used as a basis for discrimination, with the disclosure of a same-sex relationship among potential guests leading to fewer approvals for shared accommodation.

Studies show a variety of negative effects of discrimination, such as lower acceptance or willingness to transact with the discriminated party, lower willingness to pay, and lower total earnings. In addition, less polite feedback has been recorded for targets of discrimination.

Among the strategies to reduce discrimination on sharing platforms, researchers suggest intergroup contact and creating a more positive image of out-groups. There are suggestions for a debiasing feedback/reputation system, e.g., adjusting the score in favor of the most recent reviews. There are debates about the amount of identity information available, with some researchers suggesting reducing the information, e.g., by hiding real names and photos or replacing them with ID numbers. Others disagree and argue for more disclosure to convince peers of good personal qualities and the quality of potential transactions.

Based on our systematic literature review results, we see several directions for future research to explore and mitigate bias on online platforms. First, the majority of studies sample data from US sharing platforms; thus, the most common scenario studied is White vs. Black peers. For a fuller picture, we believe that more research is needed in other countries, focusing on their regional in-groups and out-groups. Second, strategies to mitigate discrimination are suggested by authors in the discussion of results, but their effectiveness is relatively rarely tested compared to evidencing discrimination per se (see Appendix for details). Third, currently, experimental studies prevail, making it possible to establish cause-effect relationships. Future empirical efforts may be directed toward collecting qualitative data and enriching our understanding of why discrimination occurs, which in turn will help in developing appropriate coping mechanisms.

Conflicts of Interest: The authors declare no conflict of interest.
Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers.

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Appendix. Studies included in the systematic literature review and description of their sample, methodology, focus, and conclusions.

Note: HDA – historical data analysis

Study	Domain// exact platform	Study focus	Method	Sample	Data collected	Discrim. form	Discrimination operationalization	Outcome variable	Conclusion	Coping strategy recommendation
Edelman & Luca (2014)	Accommodation // Aibnb	Discrim. existence	HDA	3752 listings in New York	July 17, 2012	Race/ ethnicity	White vs. Black hosts based on the profile picture	Price	Non-black hosts charge approximately 12% more than black hosts for the equivalent rental.	Eliminating or reducing the prominence of host photos
Barzilay & Ben-David (2016)	Skills// U.S. platform	Discrim. existence	HDA	4,669 profiles on a US platform	June 2015 & Mar 2016	Gender	Female vs. male	Hourly wage rate	Women's hourly rates are significantly lower than men's.	
Rosenblat et al. (2017)	Ride//Uber	Discrim. existence & coping strategy	Case study	-	April 2016	Race/ ethnicity	-	-	Bias may creep into evaluations of drivers through consumer-sourced rating systems. Reliance on potentially biased consumer ratings to make material determinations may nonetheless lead to a disparate impact in employment outcomes.	Increase the reporting burden on customers. Reduce the information available to raters
Chen et al. (2017)	Finance/Lending // P2P lending platform in China	Discrim. existence	HDA	51 K listings from a P2P lending platform in China	2007 and 2011	Gender	Gender (male vs. female)	Probability of funding approval, interest rate	Female borrowers are more likely to be funded, pay higher interest rates and have significantly lower default rates of loans.	Competitions among lenders should be encouraged

Study	Domain// exact platform	Study focus	Method	Sample	Data collected	Discrim. form	Discrimination operationalization	Outcome variable	Conclusion	Coping strategy recommendation
Edelman et al. (2017)	Accommodat. // Airbnb	Discrim. existence	Experiment	6,4 K replies from hosts in Baltimore, Angeles, St. Louis, and Washington, DC	between July 7, 2015 & July 30, 2015	Race/ ethnicity	White vs. African American name guests	Acceptance rate	Applications from guests with distinctively African American names are 16% less likely to be accepted than of identical guests with white names. Hosts who have never had an African American guest discriminate stronger.	Audit Airbnb hosts, conceal names and photos
Hannák et al. (2017)	Skills// TaskRabbit and Fiverr	Discrim. existence	HDA	13,5 K profiles from TaskRabbit and Fiverr in USA	Late 2015	Race/ ethnicity Gender	Female vs. male, Black vs. Asian vs. White	Review	White women receive 10% fewer reviews than males. Black workers, esp. men, receive lower feedback scores (i.e., ratings) than other workers with similar attributes. Asian workers receive higher rating scores.	Displaying most recent reviews, "quick assign" option, adjust individual worker's ratings (bias-correction)
Tjaden et al. (2018)	Ride// BlaBlaCar	Discrim. existence	HDA	16,6K rides in Germany	listed online between 16 July 2015 & 27 July 2015	Race/ ethnicity	Arab/Turkish/Persian name driver vs. German	Clicks, price premium	Drivers with Arab/Turkish/Persian names attract less demand (measured in clicks) than drivers with typical German names. Arab/Turkish/ Persian drivers would have to offer their rides on average 4.20 Euros cheaper than German drivers to achieve the same number of clicks.	Higher user ratings, a higher number of ratings, and information on driver experience decrease ethnic discrimination.

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Simonovits et al. (2018)	Ride//ride-sharing platform operating in Hungary	Discrim. existence	Controlled field experiment	160 responses from Hungary	Summer 2017	Race/ ethnicity Gender	Ethnicity (Arabic, Russian, Chinese, Dutch) & gender (female, male)	Response rate	Highest approval rate for the Dutch and the lowest rate of approval the Arabic male tester. Gender effects insignificant.	-
Dai & Brady (2019)	Skills// Rover (dogsitting), Fiverr (business freelance)	Discrim. existence	Experiment	97 responses from USA	February 2019	Disability	Disability status (physical: traumatic brain injury; psychiatric: bipolar disorder; or none)	Trustworthi-ness, attract-tiveness, competence, employabi-lity suitability	No significant effect of disability status and types of sharing economy platforms on trustworthiness, attractiveness, competence, and employability suitability.	
Foong et al. (2018)	Skills// Upwork	Discrim. existence	HDA	self-determined hourly bill rates from the 48K public worker profiles in the United States	Dec 13-31, 2017	Gender	Female vs. male	Hourly wage rate, total earnings	The median female hourly rate was 74% of the median man's hourly bill rates. In some jobs, a more complex relationship between gender and earnings: women earned more overall than men by working more hours, outweighing the effect of lower hourly bill rates.	Continual evaluation of the complex gender dynamics
Cui (2019)	Finance, lending// renrendai.com	Discrim. existence	HDA	314,6 K listings on renrendai. com, a P2P lending platform in China	between Jan 1, 2011 & Dec 31, 2014	Occupa-tion	Salary earners vs. entrepreneurs	Acceptance rate	Private entrepreneurs are preferred to salary earners.	

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Ahuja & Lyons (2019)	Accommodat. // Airbnb	Discrim. existence	Field experiment	794 Airbnb listings, present on the site in January 2016 in Dublin	794 requests in June July 2016	Sexual orienta- tion	Same-sex-relationship guests (SSR)	Acceptance rate	Guests in male SSRs are 20–30 pp. less likely to be accepted than identical guests in opposite-sex relationships and in female SSRs. This difference is driven by hosts' non-responses, not outright rejection, and persists regardless of host and location characteristics.	
Kas et al. (2019)	Ride// Dutch P2P motorcycle sharing platform	Coping strategy	HDA	7K requests on P2P motorcycle sharing platform in the Netherlands	May 2016 to July 2017	Race/ ethnicity	Dutsch vs. Non-dutsch names	Probability to accept a request	Ethnic minority renters receive fewer reviews than ethnic majority renters. With time reputation system does not reduce the initial inequalities between otherwise compa-rable renters of different ethnicity.	Inequality-sustaining effects of reputation system
Moody et al. (2019)	Ride//Uber, Lyft	Discrim. existence	Survey	2041 responses from Uber and Lyft drivers in the US	2016, 2018	Race/ ethnicity Social class	Race, ethnicity, social class	Satisfaction, willingness to use a service	For users, rider-to-rider discriminatory attitudes are strongly negatively related to satisfaction with the ride & percentage of trips. For potential users, discriminatory attitudes are strongly negatively related to willingness to share a ride on uberPOOL or Lyft Line.	-

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Carol et al. (2019)	Ride// a ridesharing platform in Germany	Discrim. existence	Field experiment	952 requests to drivers on a German carpooling platform	Sep & Nov 2016	Race/ ethnicity Gender	German vs. Turkish, male vs. female passengers	Acceptance rate, response time, response order	Discrim. exists for acceptance rates & response order, not response time. Men with Turkish names are most likely to be discriminated. Positive discrim. for female drivers. Regional differences: less discrim. of users with Turkish names on routes in East vs West Germany.	-
Brown (2019)	Ride// Uber, Lyft	Discrim. existence	Audit/ Field experiment	1,704 ride-hail and taxi trips in Los Angeles	Oct & Dec 2017	Race/ ethnicity Gender	Black vs. Asian/Hispanic vs. White, female vs. male	Acceptance rate, wait time	In taxi, discrim. against Black riders (13% higher trip cancellation rates, longer wait times). In Uber & Lyft, discrim. is weaker (4% higher trip cancellation rates for black and 3% for Asian/Hispanic passengers). Insignificant gender differences.	Cashless payment; driver & passenger ratings; instant reporting, driver retraining. Track discriminatory behavior, change what drivers see about riders and when, alter incentives for accepting & cancelling rides
Goel et al. (2020)	Accommodat. // Airbnb	Coping strategy	HDA	8K listings on Airbnb from New York City	-	Race/ ethnicity	White vs. non-white hosts	Probability to book	Incentive mechanism & bias-correction encourages users trying service offered by disadvantaged class.	An incentive mechanism and a bias correction technique.

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Cui et al. (2020)	Accommodat. // Airbnb	Discrim. existence & coping strategy	Field experiment (N=4)	1,801 hosts of listings from Boston, Chicago, Seattle, Austin, and Los Angeles.	Sept 2016 - April 2018	Race/ ethnicity	White or African American guest names guest	Probability to accept a request	Requests from guests with African American–sounding names are 19.2 pp. less likely to be accepted than those with white-sounding names.	A positive review on a guest's page reduces discrim. A nonpositive review & a blank review attenuates discrim. Self-claimed information on friendliness & tidiness does not reduce discrimination
Farmaki & Kladou (2020)	Accommodat. // Airbnb	Discrim. existence	Interview	41 Airbnb hosts from European countries	Nov 2018 and May 2019	Race/ ethnicity Sexual orienta-tion Gender Age	Racial, ethnic and religious discrimination to age, gender and sexual orientation bias	Declining request	Despite anti-discrim. policy, hosts discriminate by directly declining requests and/or drafting property listing in a way to indirectly exclude specific guest groups. Hosts perceive such measures as property safeguarding and because of feelings of powerlessness.	-
Liebe & Beyer (2021)	Accommodat. // Airbnb	Discrim. existence	Stated choice experiment	766 German respondents	April 2016	Race/ ethnicity	German vs. Turkish vs. Italian	Probability to ride, willingness to pay	Respondents were willing to pay 1.26 Euro more ($\approx$6-12% of the total price) to not ride with a person assumed to be Turkish and 0.48 Euro more to not ride with a person assumed to be Italian.	Diverse advertising images & slogans, not using driver names & pictures, frequent contact with outgroups

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Nødtvedt et al. (2021)	Accommodat. // Aibnb	Discrim. existence & coping strategy	Experiment	1 599 responses from Norway	Nov 2018	Race/ ethnicity	Norwegian vs. Non-Western hosts (immigrants from Arab countries, Iraq and Somali)	Attitudes, willingness to pay, intention to rent, choice to rent	Apartments of non-Western hosts (vs. Norwegian) evoke more negative attitudes toward the apartment & lower intentions to rent, and were 25% less likely to be chosen over a standard hotel room.	Reputation-based ratings from previous guests, can reduce discrimination
Mejia & Parker (2021)	Ride// Uber	Discrim. existence	Field experiment	3200 requests on Uber in Waschington DC	Oct to mid-Nov 2018	Race/ ethnicity Sexual orienta-tion Gender	Caucasian vs. African-American vs. LGBT supportive passengers; female vs. male.	Cancellation rate	No bias at the ride request stage. After acceptance, racial and LGBT biases are persistent, no evidence of gender biases. Moderating effect of peak timing, with lower cancelation rates for non-Caucasian riders.	
Zhang et al. (2022)	Accommodat. // Airbnb	Discrim. existence & coping strategy	HDA	8.8 K listings from six U.S. cities (Austin, Chicago, Los Angles, New Orleans, New York, Seattle)	2019	Race/ ethnicity	White, Asian American and African American profiles	Discrimination index based on past bookings	Both hosts and guests discriminate.	Peer-generated and self-claimed information can help reduce discrimination
Laouénan & Rathelot (2022)	Accommodat. // Airbnb	Discrim. existence	HDA	670 K listings in 19 cities in North America & Europe. In total, 3,8 M observations	June 2014 - Nov 2017	Race/ ethnicity	Hosts with Arabic or Muslim first names and hosts categorised as Black based on their profile pictures	Price	Hosts from minority groups charge 3.2% less for comparable listings.	Improving the feedback system

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Green-wood et al. (2022)	Ride// artificial ridesharing service "Agile Rides"	Discrim. existence	Vignette experiment	919 participants from USA	-	Race/ ethnicity Gender	Female vs. male, Caucasian vs. African - American drivers	Willingness to transact, post-transaction perception of quality	No evidence for racial bias. No evidence ex ante of gender bias. For a lower quality experience, there is a disproportionate penalty for female drivers. Past high quality does not serve as a buffer against penalties.	
Yu & Margolin (2022)	Accommodat. // Airbnb	Discrim. existence & coping strategy	HDA	16,674 hosts and 397K reviews on Airbnb in New York City	12 Mar 2009 to 6 Aug 2018	Race/ ethnicity	White vs. Asian vs. Black hosts	Review acquisition speed, review positivity	White hosts acquire 1st review & 3rd review (enough to trigger publication of overall rating) more quickly than Asian and Black hosts. White hosts receive higher aggregate ratings & more positive reviews at early stage of review acquisition.	Setting listings instantly bookable helps reduce the racial difference in review acquisition
Abramova (2022)	Ride // P2P ridesharing platform	Discrim. existence & coping strategy	Stated choice experiment	265 responses from West European countries (UK, France, Germany, Belgium, Switzerland, Austria, Ireland, the Netherlands)	Nov 2019	Race/ ethnicity Gender	Middle Eastern vs. European descent names gender (male vs. female)	Willingness to book a ride, willingness to pay	Middle Eastern descent male names for drivers and co-travelers leads to a lower willingness to accept and pay for a ride. Females are choosier in their decision-making. Price discounts and positive information only partly compensate for initial disadvantage.	Identity concealment is perceived negatively

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Simonovits et al. (2023)	Ride//ride-sharing platform operating in Hungary	Discrim. existence	Field experiment	1005 ride requests on a ridesharing platform in Hungary	Oct 12 & Nov 6, 2021	Race/ ethnicity Disability	Roma vs. Hungarian vs. disabled	Response rate	Lower approval rates for disabled (56%) & Roma passengers (52%) relative to Hungarian (70%).	
Verhaeghe et al. (2023)	Accommodat. // Airbnb	Discrim. existence	Controlled field experiment	1043 corresponde nce tests in Belgium	Summer 2021	Race/ ethnicity	Moroccan-sounding names of the guests vs. Belgian sounding names vs. Polish	Response rate	Guests with Moroccan-sounding names have 6.9% lower acceptance rates than those with Belgian sounding names. No discrim. against guests of Polish origin. Non-professional Airbnb hosts discriminate much less than professional hosts.	
Park et al. (2023)	Accommodat. // Aibnb	Coping strategy	HDA	150K guest reviews of 7147 hosts across 7903 instant bookable listings in New York City from Inside Airbnb	between 12 March 2009 & 6 August 2018	Race/ ethnicity	White vs. Black vs. Asian guests & hosts based on the profile picture	Probability to book	Preference for same-race hosts and same-race guests. Guests of all races are more responsive to same-race endorsements (reviews).	Algorithmically harness racial bias
Wu et al. (2023)	Finance/ lending// renrendai.com	Discrim. existence , coping strategy	HDA	290K listings on renrendai.co m, a P2P lending platform in China	from 2010 to 2018	Gender Educa-tion	Female vs. male, bachelor's degree vs. absence of it	Acceptance rate, interest rate	Education gap and gender gap in success rate in getting a loan and in the rate of interest paid on approved loans.	Voluntary digital authentication increases loan approval rate among vulnerable borrowers, but it also increases their nominal interest rate