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# The perceived impacts of short-term rental platforms: Comparing the United States and United Kingdom

Christoph Lutz<sup>a,\*</sup>, Filip Majetić<sup>b</sup>, Cristina Miguel<sup>c</sup>, Rodrigo Perez-Vega<sup>d</sup>, Brian Jones<sup>e</sup>

<sup>a</sup> Department of Communication and Culture, BI Norwegian Business School, Nydalsveien 37, 0484, Oslo, Norway

<sup>b</sup> Institute of Social Sciences Ivo Pilar 19/I, Marko Marulić Square, P. O. 277 10000, Zagreb, Croatia

<sup>c</sup> Department of Applied Information Technology, Gothenburg University, Forskningsgången 6, 41756, Göteborg, Sweden

<sup>d</sup> Henley Business School, University of Reading, Greenlands, Henley-on-Thames, RG9 3AU, United Kingdom

e Leeds Business School, Leeds Beckett University, The Rose Bowl, Portland Cres, Leeds, LS1 3HB, United Kingdom

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#### ABSTRACT

Short-term rental platforms such as Airbnb have enjoyed considerable success in recent years. However, critics accuse the platforms of having negative impacts, leading to gentrification, disruption, and increased rent and house prices. While research has investigated actual impacts of short-term rental platforms, we lack systematic, generalizable, and comparative evidence on the *perceived* impacts of such platforms, especially from a social exchange perspective and on a country level. To address these shortcomings, we conducted a representative survey in the US and UK with a holistic set of perceived impacts. Using social exchange theory (SET) and applying a range of multi-variate statistical analyses, such as exploratory factor analysis, cluster analysis and discriminant analysis, we systematically compare these two contexts. The findings indicate that US residents assess short-term rental platforms more positively than UK residents, especially for recreational, amenities-oriented and economic impacts. Among respondents who have used short-term rental platforms as guests, the perceptions are more alike between the two countries, suggesting a homogenization effect. We discuss the theoretical and practical implications of the results.

# 1. Introduction

The sharing economy is based on peer-to-peer (P2P) access to goods and services, coordinated through platforms [1]. It has become mainly associated with companies such as Uber and Airbnb. However, the activities facilitated via Airbnb could be better described as short-term renting rather than sharing [2]. Short-term rental (STR) platforms such as Airbnb provide income opportunities for ordinary citizens in a non-professional capacity but have become increasingly professionalized, catering not only to individuals but also to institutional players such as property management companies, service apartments agencies, and boutique hotels [3,4]. Simultaneously, traditional professional booking platforms, such as Booking.com, offer P2P accommodation, therefore generating a convergence of amateur and professional hosting activity in both types of STR platforms [5].

In recent years, the STR industry has experienced steady growth [6], and while the Covid-19 pandemic has strongly disrupted the STR market

[7–9], its recovery in 2022 and 2023 has been swift [10]. In line with the professionalization and growth of the STR sector, critical voices increasingly doubt its sustainability and have raised concerns about its impacts [11]. The public and policy interest in the topic [12] mirrors studies that evaluate the impacts of STRs empirically, including aspects such as business opportunities, accommodation affordability, gentrification, extra noise and litter, and regulatory issues (e.g., Ref. [13,14]; see Ref. [15] for an overview of research on economic and social impacts). However, research on perceived impacts of STR platforms is limited (e.g., Ref. [16–18]). This is an important issue, as the perceptions of STR platforms complement the actual impacts. Indeed, examining the actual impact of STR platforms in causal and holistic terms is challenging because isolating the role of STR platforms within broader social transformations remains nearly impossible. Moreover, such an approach does not account for the lived realities of different stakeholders, including those directly and indirectly affected by STR platforms. Instead, gaining insight into the perceived impacts allows for greater

\* Corresponding author.

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*E-mail addresses*: christoph.lutz@bi.no (C. Lutz), Filip.Majetic@pilar.hr (F. Majetić), cristina.miguel@ait.gu.se (C. Miguel), r.perezvega@henley.ac.uk (R. Perez-Vega), B.T.Jones@leedsbeckett.ac.uk (B. Jones).

understanding of stakeholders, their agendas and lifeworlds, a call frequently made in the literature on STR platforms [17–20]. Particularly missing are comparative studies that contrast regulatory environments, economic situations, and cultural norms, to understand how these factors shape the perceived costs and benefits of STRs for residents, hosts, and guests. Therefore, this paper investigates the following research question: *How do the perceived impacts of STR platforms differ between the UK and the US*?

Most literature on the impact of STR platforms looked at specific impacts, for example gentrification [14], but lacks a systematic spectrum of perceived impacts. Moreover, the scarce evidence on perceived impacts of STR platforms is mainly based on qualitative research and has focused on Airbnb (e.g. Ref. [17]). Our study improves on these shortcomings, broadens the picture, and assesses perceived impacts of STR platforms holistically by comparing the US and UK, and by going beyond just Airbnb. Finally, a limitation of comparative studies on STR platforms (e.g., Ref. [3,21–23]) is that they take a multi-city/multi-country approach, but less is known about the overall sentiment across a whole country. By applying SET [24,25] and using multivariate statistical analyses in the form of exploratory factor analysis, cluster analysis and discriminant analysis, our study provides a more comprehensive perspective on how social exchange logics in the STR context affect perceived impacts at a country level, meeting the challenge posed by Mody, Hanks et al. [26] to further the domain of knowledge.

# 2. Literature review

# 2.1. Public opinion about the impact of STR platforms

Positive attitudes about the impact of STR platforms suggest that they open new opportunities and allow individuals to generate additional income [17,27]. Their presence also helps create employment in the hospitality, tourism, and leisure sectors [28], contributing to the tax base and overall social good [27]. As profitable wealth creating entities, STR platforms are often seen as a model of sustainable business that does not depend on government financial support [29]. Jordan and Moore [16], in their study in Oahu, identified economic benefits, attracting conscientious travellers, and personal benefits as perceived positive impacts. DiNatale et al. [27] and Nieuwland and Van Melik [17] pointed out broadening areas of tourist spending and filling the accommodation market gap as other positive perceived impacts of STR platforms. Many consumers see such platforms as a welcome development because of the affordability of STRs compared to hotels, opening tourism to groups that might otherwise be excluded and boosting personal choice [30]. Such choice manifests, for example, in the form of listings in more residential areas that might provide more authentic tourism experiences [31]. According to Mody et al. [20], residents' opinion about the impacts of Airbnb is more positive than negative. Likewise, Miguel et al. [19] show that UK-based residents perceive platforms mainly positively, with the exception of antisocial behavior and crime, which was a clear negative impact reported by participants.

However, STR platforms are also subject to criticism and are often portrayed as disruptive. According to this critical narrative, STR platforms contribute to overtourism, which erodes the local community spirit and increases traffic/crowding [32]. The displacement of residents through the gentrification of neighborhoods with many STRs is an important matter of concern [14,18]. The impact STRs have on housing prices is another, related worry [17,27,33]. Additional noise and litter, changes in demand for and provision of local services (e.g., schools), issues with parking, and a deterioration of the community spirit represent potential downsides of the extensive presence of STRs [17,27,32, 34]. Stergiou and Farmaki [18] identified negative perceptions as predominant, especially around disruption, displacement, and a lack of voice among residents. Other potential negative attitudes towards STRs include safety and health concerns [35,36], discrimination [37], legal uncertainties [38], and privacy issues [39]. Tax avoidance by the STR industry (both hosts and the platforms) is also seen as a pressing issue [30,32]. Given the large revenues generated by the platforms and the limited taxes they pay, perceptions of social injustice have emerged [40]. Challenges may come from the need to adapt to new laws, taxes, and local government/city regulations, with these aspects affecting many stakeholders and influencing public opinion. Finding the right balance between the benefits of pop-up tourism and harms of over-tourism is difficult [41] and locations vary in how successful they are with this endeavor. Seeking to address the impacts of STR platforms, the European Commission [42] promoted fairness and transparency for professional users (i.e., users that rent multiple properties and see it as their business) of online intermediation services through better regulation [43].

Comparative research on the actual impacts of STR platforms has been fruitful (e.g., Refs. [3,21-23,44,45]). In their multi-country and multi-city (New York, San Francisco, Los Angeles, Boston, Melbourne, Sidney, Berlin, and Munich) study, Hoffman and Schmitter Heisler [23] found that some of the most notable impacts of STR platforms are structured around housing prices and rents, racialized gentrification, and displacements of local residents. Adamiak [3] examined 5.7 million listings in 167 countries, with a primary focus on the analysis of places where STR are prevalent, which is mainly in big cities and coastal locations. Economic development indicators (e.g., GDP per capita) and the relative number of international tourist arrivals were significantly correlated with the number of listings. The evidence across comparative studies suggests that STRs are mainly concentrated in the same areas as traditional accommodation services, so that the idealistic view that STR platforms would extend tourism beyond current geographical and spatial boundaries is not borne out by research findings (e.g., Refs. [22, 44]). Despite the growing amount of comparative research on the impact of STR platforms, there is a limited understanding on whether these effects vary across geographies, particularly when we move away from highly touristic locations. Moreover, clear focus rests on actual impacts, rather than perceived ones. Therefore, we investigate whether attitudes and public opinions of the impact of STR platforms differ when a representative sample that includes both large touristic cities and other geographies are taken into consideration.

# 2.2. Social exchange theory

STRs carry costs and benefits for hosts, guests, and residents, as explained in the previous section. SET [25,46,47] allows to holistically understand complexities derived from the interactions of these stakeholders. According to SET, social exchanges involve a series of interactions that lead to certain obligations (Corpanzo & Mitchell, 2005). In its most basic form, the theory posits that an initiation by an actor towards a target will lead towards attitudinal and behavioural responses from the target in return (reciprocity), and that these interactions lead to relationship formations [48]. Exchange may be individual, but it is done in a social context and as part of a social process. As such it is about power, status, and influence [49]. Social exchange involves the recognition of individual and mutual needs, rights, and obligations. It is enabling and constraining and bound up with the structures and networks within which individuals operate [50]. Power relationships inevitably form part of the social exchange process and the inequitable nature of power dynamics shapes experiences, processes, and outcomes [46,47]. A cost-benefit analysis is a central tenet of SET, since social interactions are guided by weighing costs (what we invest into a relationship) and rewards (what we obtain from a relationship) [51].

Applying SET to tourism perceptions can help explore the nature of relationships between tourists and local communities, allowing to gauge the costs and benefits associated with perceptions of STR impact on local communities. SET provides an established theoretical lens for the analysis of tourism aspects, and STR platforms in particular [52,53]. Hosts', guests', and residents' social interactions come with social exchanges, and in turn these exchanges affect their perceptions of impacts which

can be used to inform policy, regulation, and better practices in the STR sector. For instance, evidence exists that local authorities consider the perceived impacts of STRs for informing policymaking [54] and SET has been used to analyse the economic benefits of STR platform use, trust in the STR platform, reputation building for both hosts and guests via mutual online reviews, as well as social capital and cultural exchange gained through offline interactions ([55-57]; [58]; [59]). Moreover, SET has been applied to analyse the perceived sense of community and factors around perceived social and psychological empowerment brought about by the emergence and growth of STRs in neighbourhoods [53]. The expansion of STRs transforms urban and rural landscapes, influencing how people experience these areas through the lens of social exchanges, thereby shaping perceptions [60,61]. The co-creation of value is integral to the successful functioning of STR platforms [62]. The needs, rights, and obligations of hosts and guest of STRs show how social exchange is multi-faceted and a sophisticated process of value creation. SET offers novel insights to the perceived impacts of STR platforms on users and communities. Hosts, guests, and residents have different perceptions of STR impacts in practice (e.g., Ref. [18,63]), with SET highlighting the social interactions occurring between hosts, guests, and residents, and emphasizing the exchange of benefits and costs that shape their views on STR impacts.

While research has explored the impacts of STR platforms at the local level and has adopted SET to do so (e.g., Ref. [18,63,64]), there is scope to expand SET for analysing perceived STR impacts nationally. Understanding these power dynamics, the co-creation of value, and how perceptions vary across stakeholders, is crucial for informing policy, regulation, and best practices to navigate the opportunities and challenges of STRs. To better understand the perceived impacts of STRs at a country level and through an SET lens, we therefore present an in-depth study on perceived impacts of STR platforms across two broad contexts.

#### 3. Methods

#### 3.1. Sample

Our study focuses on two markets: the US and the UK. We chose these markets for three reasons. Firstly, the US market represents the largest market for STRs, accounting for 20 % of all STR properties worldwide [65]. Secondly, the UK is the second most important English-speaking market for STRs (ranked 5th worldwide) [66]. Thirdly, despite their similarities in use of language, the US and the UK have different STR use patterns, with a significant amount of use in the US driven by an internal market [65]. By contrast, the UK has a more internationally diverse guest composition, due to its proximity to Europe and being an international travel hub [67].

In June 2021, we conducted an online survey in the UK and the US. We relied on Prolific for recruiting participants in both countries [68, 69]. Peer et al. [69,70] as well as Douglas et al. [71] find that Prolific's data quality is higher than that of comparable platforms such as CrowdFlower.

Prolific also offers a representative sample option in the US and UK, where respondents are selected across age, sex, and ethnicity to mirror the population distribution in the given country [72]. Census data from the US Census Bureau and the UK Office of National Statistics serves as the baseline for this sampling frame. Relying on Prolific's representative samples allows us to include a broader and more generalizable sub-set of the population than with Prolific's normal samples or with their screening tool – at the fraction of what this would cost with a more traditional sample provider. The representative sample has been successfully used for top publications in tourism (e.g. Ref. [73]) and beyond (e.g. Ref. [74]). After removing missing values due to screening (see below) and quality control through two attention checks, 391 respondents in the US and 388 in the UK remained (N = 779). Table 1 shows the demographic composition in terms of gender, age, education and area of residence.

# Table 1

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Demographic composition of the sample.

Semographic composition of the samp	US % (absolute	UK % (absolute
	numbers)	numbers)
Gender		
Female	50.1 (195)	52.6 (203)
Male	49.1 (191)	46.6 (180)
Transgender male	0.0 (0)	0.3 (1)
Transgender female	0.0 (0)	0.0 (0)
Gender Variant/Non-Conforming	0.5 (2)	0.3 (1)
Not listed. Please specify:	0.3 (1)	0.3 (1)
Agender (US); Non binary (UK)		
Total (Valid)	100 (389)	100 (386)
Age		
19–30	20.6 (80)	21.0 (81)
31–40	18.7 (73)	16.3 (63)
41–50	18.3 (71)	17.4 (67)
51–60	17.5 (68)	18.9 (73)
61–70	19.5 (76)	23.3 (90)
70-79 (US)/70–89 (UK)	5.4 (21)	3.1 (12)
Total (Valid)	100 (389)	100 (386)
Average Age (S.D.)	46.63 (15.69)	46.78 (15.64)
Education		
No formal education (US)	0.3 (1)	8.8 (34)
Lower secondary education (UK)		
High school (US)	6.9 (27)	21.8 (84)
Higher secondary education (UK)		
Certificate program (e.g., 1-year	3.4 (13)	9.6 (37)
vocational certificate) (US)		
Post-secondary non-tertiary		
education (UK)		
Some college (US)	25.2 (98)	4.4 (17)
Short-cycle tertiary education (UK)		
Bachelor's or equivalent (Both)	39.8 (155)	34.7 (134)
Master's or equivalent (Both)	17.5 (68)	17.9 (69)
Doctorate or equivalent (Both)	6.9 (27)	2.8 (11)
Total (Valid)	100 (389)	100 (386)
Area of residence		
Big city (more than 500.000 inhabitants)	23.7 (92)	24.4 (94)
Small to medium city (fewer than 500.000 inhabitants)	26.8 (104)	20.0 (77)
Suburb or outskirts of a city	35.1 (136)	23.6 (91)
Rural area (town or village in the	14.4 (56)	31.9 (123)
countryside)		
Total (Valid)	100 (388)	100 (385)
•	100 (388)	100 (385)

In both countries, we managed to sample a broad and demographically diverse respondent profile, allowing for generalizable conclusions from the analyses. Importantly, we have a roughly equal age and gender distribution between the two countries (same average age and standard distribution in both countries and similar gender proportion) and despite the differences in the education systems, the proportion of those having a higher education degree (i.e., Bachelor or higher) vs. those who do not is similar. Thus, comparative analyses will be meaningful, so that the encountered similarities and differences are substantive and not an artifact of the sampling.

# 3.2. Survey design

The survey started with a short description of STR platforms as the main topic of the study and with an informed consent page. The respondents were screened based on their awareness of STR platforms and consent to the data collection (5 respondents in the UK and 4 in the US dropped out due to this). The next question queried the respondents about their use of such platforms and had a binary choice: 'I have used them' vs. 'I have heard of them but never used them'. The participants were subsequently screened based on the answer to that question. Those who selected the second option were directed straight to the perceived impact questions. Those who selected the first option were further asked which of the five most prominent platforms (i.e., Airbnb, HomeAway, Booking.com, TripAdvisor, FlipKey) they (have) used and in which

capacity (i.e., guest, host, both guest and host, and an option if they have not used the platform before). We provided an open response option *'Other: Please specify'* to capture platforms not listed. We also clarified that we were interested in the use of more general-purpose platforms, such as Booking.com and Tripadvisor, only insofar as they are used for STR purposes,<sup>1</sup> but not for other purposes. Accordingly, the respondents were further streamed into different sections: Those who had used STRs only as guests were directed to the general perceived impact questions and the guest-specific perceptions questions; those who had used STRs only as hosts were directed to the general perceived impact questions and the host-specific perception questions; and those who had used at least one platform as both guests and hosts were directed to answer all sections.

We used 27 items to measure the perceived impact of STR platforms in general. These items were derived based on an earlier survey that served as a pilot and rigorous pre-test [19]. The original measurement in the pilot had 57 items and was based on a literature review to capture different dimensions of impact (e.g., socio-cultural, economic, political, environmental, technological). The impact dimensions were not represented by predefined components/factors but consisted of individual items adapted primarily from studies on impacts of STRs [20,75] and tourism in general – emphasizing impacts of the accommodation sector [76]. In the pilot [19], following Fabrigar's et al.'s [77] suggestion on data/item reduction, we performed principal component analysis (PCA) to reduce the extensive 57-item scale. The analysis yielded a more parsimonious 27-item instrument which was used for the current study (see Online Supplement for all items).

The survey participants had six response options for all impact items: 1-No impact, 2-Very negative impact, 3-Somewhat negative impact, 4-Ambivalent impact, 5-Somewhat positive impact, and 6-Very positive impact.<sup>2</sup> We used 17 items to assess guest-specific perceptions. Here we relied on the consumer-oriented sharing economy literature to derive the items [75]. The survey also included 9 items to measure guests' self-perception in terms of their impact (rather than the impact of STR platforms) and their behavior. We used 18 items to gauge host-specific perceptions. However, the number of hosts in our sample was too small to meaningfully analyse these questions.

The compensation for filling out the survey was £1.25 British Pounds. The US-based respondents spent on average 8 min to complete the questionnaire (median), for an hourly compensation of £9.3 British Pounds (corresponding to \$13.15 US Dollars at the time of the survey). The UK-based respondents were slightly faster and spent on average 7 min to complete the survey (median), for an hourly compensation of £10.9 British Pounds.

# 3.3. Data analysis

In terms of data analysis, in addition to descriptive statistics, we assessed the dimensionality of the questionnaire. Again, following Fabrigar et al. [77], after PCA was performed to reduce the data/items, the latent constructs, i.e., dimensions were identified using exploratory factor analysis (EFA). We used principal axis factoring, considering only factors with eigenvalues of 1 or higher and the axes were rotated using Promax with Kaiser normalization [77]. To ensure the items are a reasonably 'pure' measure of the factors they load onto, only factor loadings over 0.6 were used and items with high cross-loadings were eliminated ([78], p. 654) The resulting factors were saved as new variables using the Regression method. Finally, cluster analysis was performed to compare the UK and US sample in terms of groupings. We opted for an agglomerative approach through hierarchical cluster analysis, relying on squared Euclidean distance as the distance measure and Ward's method as the clustering procedure. This clustering approach is recommended if 'somewhat equally sized clusters' are expected 'and the dataset does not include outliers' ([79], p. 291), as is the case with our data due to the use of bounded Likert scales. The factor variables generated in the exploratory factor analysis served as the clustering variables and we ran the cluster analysis separately (but with the same settings) for both countries. We contrasted all solutions with between two and seven clusters. Based on their clarity of interpretation and comparability between the two countries, we decided to report the four-cluster solution. To further identify how cluster membership is structured along social criteria, we conducted a discriminant analysis. This allows to better understand the cluster membership along demographic and psychographic criteria than correlation or descriptive statistics. We considered gender, age, level of education, personal annual income, area of residence (urban vs. rural), and political orientation (measured on a 1-10 scale, with 1 meaning very left and 10 very right) as the independent/predictor variables. All analyses were conducted in IBM SPSS Statistics (v.25).

#### 4. Results

# 4.1. Descriptive analyses

Fig. 1 shows the arithmetic means of the 27 perceived impact items for the US and the UK. The perceived impact of STR platforms is most positive for 'Festivals, fairs and museums' (US: 3.81; UK: 3.37), followed by 'Offering of short-term rentals in general' (US: 3.76; UK: 3.43), 'Demand of short-term rentals in general' (US: 3.71; UK: 3.37), and 'Attractions' (US: 3.56; UK: 3.36). It is most negative for 'Drug and alcohol abuse' (US: 2.45; UK: 2.27) and 'Crime and vandalism' (US: 2.52; UK: 2.39). In general, US residents evaluate the impacts of STR platforms more positively. They score higher for every single item and for most of them, the differences are statistically significant (mean differences larger than 0.2 are statistically significant with our sample size). The differences are not primarily due to 'No impact' responses. While the proportion of respondents who select this option is larger in the UK than the US (generally a few percent more), the country differences persist if 'No impact' responses are treated as missing values, except for 'Drug and alcohol abuse' and 'Crime and vandalism', where UK then score slightly higher and more positively. However, the differences are too small to be statistically significant. Thus, our finding that US respondents perceive STR platforms more positively in almost all regards is robust to different specifications.

When 'No impact' responses are removed, 12 items are below the scale mid-point in the US and 15 above, indicating a tendency towards perceiving the impacts of STR platforms in more positive than negative terms here. In the UK, 16 items are below the scale mid-point and 11 above, showing a more negative, rather than positive, impression of the perceived impacts. This divide aligns with the focus of SET on costbenefit analysis, suggesting that US residents perceive greater benefits in terms of economic impacts, tourism, and improved amenities that outweigh the perceived costs in their estimation. This also suggests that, at least for the US sample, STRs may enhance a broader social exchange by supporting cultural institutions like museums and events, improving

<sup>&</sup>lt;sup>1</sup> The following statement was used to make this qualification: 'PLEASE NOTE: For guest, we are interested in your stay in private accommodations that belong to a specific person or are managed privately through an agency. Please only tick the "Guest" option if you have used the platform in such a capacity. For example, choose this option if you have booked a room in someone's home through Booking.com but not if you have used Booking.com for booking a normal hotel.'

<sup>&</sup>lt;sup>2</sup> We included a no impact category, which is treated distinctly from the valence-based response options (2–6), because a perceived lack of impact is different from perceived ambivalent impact. The latter means that someone perceives both negative and positive aspects and that the impacts are roughly equally pronounced. By contrast, a perceived lack of impact (no impact) means that someone thinks that short-term rental platforms and the phenomenon presented in the item are not causally associated. In the analyses reported below, we include 'no impact' responses by treating them as a baseline value and because it does not interfere with the comparative angle. However, we also present some analyses with the 'No impact' response option excluded.



Fig. 1. Perceived impacts of short-term rental platforms in the US and UK (arithmetic means).

the overall perceived quality of life for residents. This goes beyond simple monetary cost-benefit analysis and further extends research in the field, which mainly focused on STRs guest and hosts social exchanges [80].

When analysing only guests and guest/hosts (N = 233 for the UK and 232 for the US), the picture is slightly different. Here, the arithmetic mean values are more similar and some of the prominent differences encountered before disappearing. Fig. 2 contrasts the US and UK guests in terms of their perceived impact regarding the (customer) experience. US guests and guests/hosts perceive the impact of STR platforms on engagement with other guests more positively than UK guests and guests/hosts and also have a more positive perception in terms of 'A unique, one-of-a-kind experience' and 'Better engagement with the local community'. In terms of perceived impacts on host characteristics, privacy, value-for-money, and trust, the respondents in the two countries score very similarly.

Finally, the items used to gauge self-impact among the guests are different again and more mixed, with less clear country differences. Table 2 shows the arithmetic means and differences between the US and UK. US-based respondents score slightly higher for self-perceived economic impacts (e.g., 'I contribute to the local economy', 'I affect the market share of the hotel industry'), while UK-based respondents score slightly higher on the two behavioural items ('I recycle', 'I keep my noise to an

*acceptable level'*). However, the difference for only two items is statistically significant between at 5 % level between the two currents, showing vastly similar self-assessments.

# 4.2. Exploratory factor analysis

Table 3 shows a simple factor structure for the US. The Kaiser-Meyer-Olkin value of 0.954 indicates 'marvelous' sampling adequacy for the model [81]. In total, before the rotation, the five extracted factors explained 61.3 % of the common variance (Factor 1 accounting for 46.1 % - Factor 5 for 2.8 %).

Factor 1 (Tourist Attractiveness) captures recreational and amenities-oriented aspects but also includes an item on infrastructure ('good public transportation') and culture ('melting pot environment'). Factor 2 includes perceived impacts on the natural environment. Factor 3 (Personal Wellbeing) is about someone's lifestyle and their embeddedness in the community. Factor 4 is about public nuisance aspects such as littering, crime, and vandalism. Finally, Factor 5 (STR Business) captures perceived economic impacts in terms of supply and demand of STRs.

Table 4 shows a simple factor structure for the UK. The Kaiser-Meyer-Olkin value of 0.956 indicates 'marvelous' sampling adequacy for this model too [81]. In total, before the rotation, the four extracted factors



Fig. 2. Perceived impacts among guests (arithmetic means).

# Table 2

Comparison of US and UK guests and guests in terms of their perceived self-impact.

When traveling as a short-term rental guest	US	UK
I contribute to the local economy	4.24 <sup>a</sup> (0.79)	4.17 <sup>a</sup> (0.77)
I contribute to the rise of housing prices	3.32 (1.10)	3.39 (1.00)
I help individuals pay their mortgage/bills	4.11 (0.93)	3.95 (0.92)
I contribute to the rise of rent prices	3.39 (1.06)	3.41 (0.98)
I respect the neighbo(u)rs	4.61 (0.69)	4.55 (0.75)
I affect the market share of the hotel industry	3.63 <sup>a</sup> (0.99)	3.46 <sup>a</sup> (0.86)
I recycle	3.98 (1.09)	4.10 (1.03)
I keep my noise to an acceptable level	4.57 (0.72)	4.62 (0.67)
I contribute to the overall price level	3.69 (0.87)	3.55 (0.79)
Ν	232	233

Arithmetic mean values, 1–5 Likert-scales; Standard deviation in brackets. <sup>a</sup> = difference statistically significant at 5 % level (unpaired *t*-test).

explained 57.4 % of the common variance (Factor 1 accounting for 45.9 % - Factor 4 for 2.6 %). Factor 1 (Local Community) includes the public nuisance-related items but also the lifestyle and community embeddedness items. Factor 2 (Natural Environment and Traffic) includes perceived impacts on the environment, broadly speaking, this time including aspects such as traffic, littering and crowding. Factor 3 (Tourist Attractiveness) is quite broad, dealing with recreational and amenities-oriented topics but also connects to infrastructure and residential transformation. Finally, Factor 4 (STR Business) captures perceived economic impacts in terms of supply and demand. Contrasting the US and UK, we see that there is substantial overlap. The factor structure in the US is more fine-grained, differentiating between perceived strain on the natural environment and the social environment. In the UK, the strains on the social environment (e.g., 'drug and alcohol abuse', 'crime and vandalism') fall together with lifestylerelated impacts (e.g., 'the preservation of my way of life'), suggesting that the two are more intertwined in the UK in the public opinion. Moreover, the environmental pollution factor is broad, whereas in the US, it is narrow, focusing relatively strongly on nature.

# 4.3. Cluster analysis

The four-cluster solution yielded four distinct groups that vary greatly between each other but are comparable between the two countries. Table 5 shows the four clusters with a cluster name and the percentage of respondents in each country that belong to that cluster.

*Cluster 1* captures somewhat negative perceived impacts of STR platforms. This cluster is the second largest and slightly more prevalent in the UK than the US. Across the five factors in the US, the averaged mean score is -0.56 (Factor 1 = -0.88; Factor 2 = -0.49; Factor 3 = -0.68; Factor 4 = -0.41; Factor 5 = -0.36) and across the four factors generated through the exploratory factor analysis in the UK, the averaged mean score is -0.47 (Factor 1 = -0.57; Factor 2 = -0.50; Factor 3 = -0.60; Factor 4 = -0.21). Thus, members of this cluster in both countries score around 0.5 standard deviations more negatively than the global average in terms of perceived impacts.

#### Table 3

Exploratory factor analysis of perceived impact items for the US.

Items/Dimensions of impact	Factor				
	1	2	3	4	5
Tourist Attractiveness					
Festivals, fairs, and museums	0.718				
Having live sports to watch in my community	0.661				
Good public transportation	0.778				
Attractions	0.863				
Melting pot environment	0.696				
Natural Environment					
The preservation of natural areas		0.735			
Clean air and water		0.667			
Peace and quiet		0.629			
Personal Wellbeing					
A feeling of belonging in my community			0.672		
The preservation of my way of life			0.861		
My personal life quality			0.836		
Public Nuisance					
Litter issues				0.624	
Drug and alcohol abuse				0.651	
Crime and vandalism				0.728	
STR Business					
Supply of short-term rentals in general					0.805
Demand of short-term rentals in general					0.846

Kaiser-Meyer-Olkin = 0.954; loadings below 0.6 suppressed; 11 items removed due to high cross-loadings or low loadings.

# Table 4

Exploratory factor analysis of perceived impact items for the UK.

Items	Factor			
	1	2	3	4
Local Community				
Drug and alcohol abuse	0.729			
Crime and vandalism	0.719			
Population growth	0.679			
A feeling of belonging in my community	0.769			
The preservation of my way of life	0.862			
Resident participation in local government	0.638			
My personal life quality	0.794			
Natural Environment and Traffic				
The preservation of natural areas		0.775		
Clean air and water		0.630		
Peace and quiet		0.739		
Litter issues		0.738		
Traffic issues		0.734		
Crowding and congestion		0.742		
Tourist Attractiveness				
Festivals, fairs, and museums			0.856	
Good public transportation			0.646	
Attractions			0.834	
Regeneration of neighbourhoods in decline			0.629	
STR Business				
Supply of short-term rentals in general				0.822
Demand of short-term rentals in general				0.741

Kaiser-Meyer-Olkin = 0.956; loadings below 0.6 suppressed; 8 items removed due to high cross-loadings or low loadings.

*Cluster 3* captures positive perceived impacts of STR platforms and is the largest cluster in both countries. The cluster is proportionally more prominent in the US than the UK (48 % vs. 34 %). However, the smaller number of UK respondents have higher factor scores on average: 0.88 in the UK (Factor 1 = 1.10; Factor 2 = 0.81; Factor 3 = 0.94; Factor 4 =0.67) vs. 0.56 in the US (Factor 1 = 0.74; Factor 2 = 0.72; Factor 3 =0.77; Factor 4 = 0.64; Factor 5 = 0.47). Thus, the US cluster can be described as 'somewhat positive' (a bit more than half a standard deviation above the global mean) and the UK cluster as 'very positive' (a Table 5

Clusters and Membership Percentages as well as Arithmetic Means across all
Factor Variables for US and UK.

	US	UK
Cluster 1: Somewhat Negative	29 %	33 %
	-0.56	-0.47
Cluster 2: Very Negative	10 %	14 %
	-1.40	-1.37
Cluster 3: Positive	48 %	34 %
	0.67	0.88
Cluster 4: Mixed	13 %	19 %
	-0.13	0.27

*Cluster 2* describes very negative perceived impacts. The cluster is the smallest in both countries but again slightly more prevalent in the UK. In the US, the averaged mean is -1.40 (Factor 1 = -1.41; Factor 2 = -1.36; Factor 3 = -1.19; Factor 4 = -1.28; Factor 5 = -1.75) and in the UK -1.37 (Factor 1 = -1.21; Factor 2 = -1.36; Factor 3 = -1.39; Factor 4 = -1.52). Thus, members of this cluster in both countries score almost 1.5 standard deviations lower than the global average in terms of perceived impacts.

bit less than one standard deviation above the global mean).

Finally, cluster 4 describes mixed perceived impacts of STR platforms. This cluster is the second smallest and slightly more prevalent in the UK than the US. The mixed cluster is characterized by at least one factor having a negative score and at least one factor having a positive score, resulting in an averaged mean that is close to 0. However, in the US, this cluster has somewhat more negative perceptions than it has in the UK (see Table 5). In the US, the mixed cluster is more uneven between the factors, scoring positively on Factor 1 (0.31) and Factor 5 (0.42) but negatively on Factors 2 (-0.51), 3 (-0.43) and 4 (-0.45). Thus, the cluster sees STR platforms as positive in terms of economic impacts, broadly speaking (including recreational, amenities-related, and infrastructural aspects as well as supply and demand of STRs) but negative in terms of environmental, social and cultural aspects. In the UK, the cluster only perceives the platforms as negative in terms of public nuisance-related issues and lifestyle/community embeddedness matters (Factor 1 = -0.06) but slightly positively in all other regards (Factor 2 = 0.45; Factor 3 = 0.40; Factor 4 = 0.28).

To check for the demographic profile of each cluster, we ran crosstabs and nominal correlation coefficients for gender and area of residence, separately for the two countries. None of the correlations was significant, except for area of residence in the US (Phi = 0.24 with pvalue of 0.01; Cramer's V = 0.14 with p-value of 0.01). Members of cluster 1 (somewhat negative) live disproportionally in suburbs, whereas members of cluster 3 (positive) live disproportionally in cities (both large and small to medium). For the ordinal or continuous variables (age, education, income, political attitudes) we ran Spearman's Rho correlations with the clusters recoded in ascending order from very negative (1), to somewhat negative (2), mixed (3), and positive (4). Age was the only variable significantly correlated to cluster membership. In both countries, the correlation coefficient was significant (p < 0.01) and had a comparable negative value: 0.13 in the US and -0.15 in the UK. Thus, young respondents in both countries are more strongly represented in the positive or mixed clusters, whereas older users are more strongly represented in the (somewhat or very) negative clusters.

#### 4.4. Discriminant analysis

Table 6 shows the results of the discriminant analysis. This table can be similarly interpreted as a multivariate analysis of variance (MAN-OVA) table. Particularly, the significance (Sig.) column indicates if there are meaningful differences in cluster membership across the values of the independent variables.

The cluster membership in the US differs significantly in terms of respondents' age and area of residence, while in the UK the membership differs only in terms of age. In the US, discriminant functions (DF) 1

#### Table 6

Tests of equality of group means from discriminant analysis.

	Wilks' I	Lambda	F		Sig.	
Variables	US	UK	US	UK	US	UK
Gender (F-M)	0.990	0.996	1.213	0.548	0.305	0.650
Age	0.964	0.956	4.697	5.805	0.003	0.001
Level of education	0.985	0.988	1.943	1.496	0.122	0.215
Personal annual income	0.995	0.994	0.638	0.773	0.591	0.510
Area of residence (U–R)	0.961	0.985	5.110	1.871	0.002	0.134
Political orientation (L-R)	0.982	0.993	2.255	0.820	0.082	0.484

through 3 combined were statistically significant (Wilks's  $\Lambda=0.896$ , df (18), p = 0.001), while the others were not (Wilks's  $\Lambda=0.965$ , df (10), p = 0.200 for DF 2 through 3; Wilks's  $\Lambda=0.991$ , df (4), p = 0.503 for DF 3). In the UK, none of the DFs was significant (Wilks's  $\Lambda_{DF1}=0.932$ , df\_{DF1} (18), p\_{DF1}=0.095; Wilks's  $\Lambda_{DF2}=0.981$ , df\_{DF2} (10), p\_{DF2}=0.710; Wilks's  $\Lambda_{DF3}=0.995$ , df\_{DF3} (4), p\_{DF3}=0.770). DF1 accounted for 67.9 % (US) and 73.1 % (UK) of the variance, DF2 for 24.2 % (US) and 20.1 % (UK), and DF3 for 7.9 % (US) and 6.8 % (UK). Canonical correlations (referring to each DF), indicating the relationship between the predictors and cluster membership, were 0.267, 0.163, and 0.094. for the US and 0.224, 0.119, and 0.070 for the UK respectively.

In the US, the strongest predictor for DF1 was age, followed by area of residence, and education. For DF2, political orientation, level of education and gender had the highest predictive power. Finally, education, age, and political orientation influenced DF3 most storngly. In the UK, the strongest predictor for DF1 was age, followed by income and education. Education, gender, and area of residence mattered most for DF2. Finally, income, education, and area of residence were the strongest predictors for DF3.

In the US, cluster 2 ('Very negative') had the highest mean score on DF1 and DF3, while cluster 1 ('Somewhat negative') had the highest mean score on DF2. In the UK, cluster 2 ('Very negative') had the highest mean score on DF1 and DF2, and cluster 4 ('Mixed') scored the highest on DF3. Thus, in the context of the discriminant function with the highest discriminatory power (DF1), being older, more rural, and less educated in the US as well as being older, financially better off, and less educated in the UK suggest one's membership in cluster 2 ('Very negative'). In total, based on the selected predictors, the discriminant analysis correctly clustered 50.3 % of the US respondents and 39.5 % of the UK ones.

# 4.5. Further analyses area of residence

Given the importance of area of residence, we performed more finegrained analyses with area of residence as the key variable of interest. The somewhat negative perceived impacts in US suburbs and positive impacts in US cities appeared counter-intuitive considering the STR literature, which often highlights negative impacts and residential tensions in urban areas [82,83]. To further explore these tendencies, we divided the samples into four area of residence groups (big city, small to medium city, suburb/outskirts of a city, rural area), assessed overall perceived impacts in each group, and repeated the Ward's-method hierarchical cluster analysis (4.3) within them. Again, four-cluster solutions were found to be most adequate. The results were interpreted through the averaged mean scores of the four (UK) and five perceived impact dimensions (US). Averaged mean scores (M) of  $\pm$  0.01–0.49 indicate somewhat positive/negative impact,  $M = \pm 0.50-0.99$  indicated positive/negative impact, and M  $= \geq \pm 1$  indicated very positive/negative impact.

The general trend in both countries is similar. The key difference lies in the role of perceived impacts in urban areas vs. non-urban areas. In the US and UK, respondents based in large cities ( $N_{BC\_US} = 92$ ;  $N_{BC\_UK} = 93$ ) and small to medium cities ( $N_{SMC\_US} = 103$ ;  $N_{SMC\_UK} = 76$ ) were similarly clustered, as Figs. 3 and 4 show. Cluster 1 captured very

Clusters and N per Cluster for Big and Small/Medium Sized Cities in the US



Fig. 3. Cluster membership of US respondents in urban areas.

Clusters and N per Cluster for Big and Small/Medium Sized Cities in the UK



Fig. 4. Cluster membership of UK respondents in urban areas.

negative perceived impacts of STRs ( $M_{BC_{US}} = -1.29$ ;  $M_{SMC_{US}} = -1.40$ ;  $M_{BC_{UK}} = -1.01$ ,  $M_{SMC_{UK}} = -1.17$ ) and was relatively small in size in both countries but larger in the UK than the US. Cluster 2 captured somewhat negative impacts ( $M_{BC_{US}} = -0.12$ ,  $M_{SMC_{US}} = -0.55$ ,  $M_{BC_{UK}} = -0.28$ ,  $M_{SMC_{UK}} = -0.36$ ) and was larger in size in the US than the UK and overall more prominent than cluster 1. Cluster 3 captured somewhat positive impacts ( $M_{BC_{US}} = 0.40$ ,  $M_{SMC_{US}} = 0.33$ ,  $M_{BC_{UK}} = 0.30$ ,  $M_{SMC_{UK}} = 0.26$ ) and was by far the largest cluster in the US. Finally, cluster 4 accommodated respondents who reported positive impacts of STRs ( $M_{BC_{US}} = 1.36$ ,  $M_{SMC_{US}} = 0.87$ ,  $M_{BC_{UK}} = 0.83$ ,  $M_{SMC_{UK}} = 0.98$ ), forming the largest cluster in the UK but only the third largest in the US. If the clustering was omitted, the overall perceived impact in the US and UK among urban residents was somewhat positive ( $M_{BC_{US}} = 0.27$ ,  $M_{SMC_{US}} = 0.05$ ,  $M_{BC_{UK}} = 0.15$ ,  $M_{SMC_{UK}} = 0.06$ ).

On the other hand, among suburban and rural residents, the overall perceived impact of STRs was somewhat negative ( $M_{S/O_US} = -0.17$ , N = 135;  $M_{RU_US} = -0.14$ , N = 54;  $M_{S/O_UK} = -0.14$ , N = 91;  $M_{RU_UK} = -0.04$ , N = 122). The same clusters were shared by residents of suburbs in the US and rural areas in the UK, and, conversely, residents of rural areas in the US and city suburbs in the UK. For instance, in the former case, cluster 1 captured very negative perceived impacts ( $M_{S/O_US} = -1.13$ ,  $N_{S/O_US} = 30$ ;  $M_{RU_UK} = -1.37$ ,  $N_{RU_UK} = 22$ ), cluster 2 negative impacts ( $M_{S/O_US} = -0.66$ ,  $N_{S/O_US} = 25$ ;  $M_{RU_UK} = -0.53$ ,  $N_{RU_UK} = 20$ ), cluster 3 somewhat negative impacts ( $M_{S/O_US} = -0.07$ ,  $N_{S/O_US} = 33$ ;  $M_{RU_UK} = -0.09$ ,  $N_{RU_UK} = 33$ ), and cluster 4 captured positive impacts ( $M_{S/O_US} = 0.63$ ,  $N_{S/O_US} = 47$ ;  $M_{RU_UK} = 0.81$ ,  $N_{RU_UK} = 47$ ).

#### 5. Discussion

Our analysis revealed considerable differences in the perceived impacts of STR platforms, despite the relative dominance of the same

platforms in both countries (i.e., Airbnb as the most prominently used platform, followed by Booking.com and Tripadvisor). US-based respondents assessed STR platforms more positively. UK-based respondents chose the 'No impact' option more frequently. However, even when 'No impact' responses were excluded, US-based respondents had higher scores. Across the 27 perceived impact items, they rated STR platforms and their impacts as a slight net positive, whereas the UKbased respondents rated them as a slight net negative. The differences between US- and UK-based participants were particularly stark for 'Melting pot environment' (mean difference of 0.51 with 'No impact' respondents and 0.46 without those respondents), 'Having live sports to watch in my community' (0.34 and 0.30 respectively), 'Peace and quiet' (0.38 and 0.26 respectively) and 'Working conditions' (0.38 and 0.18 respectively). This suggests that US residents see the impacts of STR platforms as partly aligned with cultural norms and customs, underpinned by a sense that people have equal opportunities to succeed, and those that demonstrate the skills, work ethic and effort to build wealth are praised [84]. This perspective to life has been widely examined in the literature and is known commonly as 'the American dream' [85]. Furthermore, the geography of the US as one of the largest nations in the world as well as planning that encourages cities to spread rather than encouraging upward growth [86] relieves the pressure for space that countries like the UK have. This might also explain the more negative attitude towards STR platforms in the UK [87]. In terms of the travel/tourism market, the US market is much bigger and more domestically oriented, whereas the UK market has been more oriented towards Europe and international tourists more generally. In that sense, US-residents are likely to see STR users as more familiar and part of their in-group, whereas UK-residents might see such users as less familiar and part of their out-group, perceiving them as potentially more foreign and disruptive. Such perceptions might then be transferred to STR platforms and the phenomenon more broadly. From a cross-cultural lens, the key dimensions that the two countries differ are uncertainty avoidance and long term orientation. The substantially higher score of the UK in long term orientation might mean that UK residents care more about preserving the current eco-system, while US residents are more open towards STR platforms and their transformative potential, resulting in more positive scores in the US.

The exploratory factor analysis then showed more fine-grained differentiation of the perceived impacts in the US and more coarse-grained impact types in the UK. While the overall factor structure was similar, the different role of perceived environmental impacts in natural and social terms is noteworthy. In the UK, both environmental aspects relating to the natural environment (e.g., *'the preservation of natural areas', 'peace and quiet'*) and to the social environment (e.g., *'crowding and congestion'*) were subsumed in one factor. In the US, the natural environment formed a distinct factor, potentially due to the strong role of nature-related communication and education (e.g., the importance of National Parks) in the public consciousness.

A cluster analysis revealed four groups that are distinct in their impact perceptions but comparable across countries. The two groups that capture negative perceptions were more prominent in the UK, while the positive perceived impacts group was substantially larger in the US, supporting our descriptive findings. The mixed cluster turned out to be more divided and slightly more negative in the US, whereas it was more uniform and slightly more positive in the UK. The cluster analysis further revealed that the clusters that captured more positive and mixed perceptions in both countries were those where younger respondents reside. These findings resonate with studies that have found that younger users tend to prefer alternative model of consumption, including those that are of temporary nature as it is the case of STRs [88]. On the other hand, those with more negative perceptions tended to be older and living in suburbs. Our findings enrich the perspective of other multi-city studies. For instance, while Hoffman and Schmitter Heisler [23] found that the impact in housing prices and rising rents tend to be concentrated in the trendy areas of inner cities, our findings reveal

that those living in the suburbs are the ones that have more negative attitudes towards STR platforms. A possible explanation of this outcome is that those living in the suburbs have been priced out from those trendy places where STRs proliferate.

Discriminant analysis allowed to explore the social structuration of the clusters, showing how age (both countries) and area of residence (US) are the only predictors that significantly differentiate the clusters. The importance of age aligns our finding with earlier research such as Edbring et al. [88], providing evidence that younger people perceive the impacts of STR platforms in more positive terms than older ones. Finally, our additional cluster analyses in 4.5 showed how residents in urban areas perceive STR impacts as overall somewhat positive. Almost half of the respondents (50.9 % in the UK and 48.0 % in the US) report living in urban areas (big city and small to medium city). By contrast, those living in suburban and rural areas (49.1 % in the UK and 52 % in the US) perceive STR impact as overall somewhat negative, revealing an interesting urban-rural divide. This finding might be partly associated with the time of our data collection – June 2021 when physical distancing was one of the key COVID-19 protective measures. Tourism data on the pandemic tourist seasons (2020-2021) suggests that STR guests, for example in Italy [89] and in the State of New York [90], favoured rural and suburban areas over urban ones. Thus, areas that had been less used to tourists and short-term dwellers might have been overwhelmed, perceiving the role of STRs platforms in a more negative light.

# 6. Conclusions

# 6.1. Main conclusions

This study investigated the perceived impacts of STR platforms, a pressing issue given the expansion of digital platforms such as Airbnb and Booking.com. Using high-quality, generalizable data and adopting a comparative perspective, we analysed the two largest English-speaking STR markets in terms of general and fine-grained perceived impacts. We found that the perceptions differ between the two countries. USbased respondents assess STR platforms more favourably in terms of their impacts but the sub-group of users (guests in our case) are more similar, especially in terms of convenience- and service-related points. This suggests an experience effect among those who have become familiar with these trans-national platforms. STR platforms bridge the globalisation-localisation gap by addressing the needs of global consumers' search for local and authentic touristic experiences [91]. We found that perceived impacts grouped relatively consistently across the two countries, with some nuance in the sense that a more fine-grained impact structure emerged among US-based respondents. In both countries, the respondents clustered similarly into four comparable groups: a small group with very negative perceptions, a large group with somewhat negative perceptions, a relatively small group with mixed perceptions, and a large group with positive perceptions. The groups differ in their age profile in both countries and in the US, they differ based on area of residence. Taken together, younger people and those living in urban areas perceive STR platforms as more beneficial in terms of their impacts than older individuals and those living in urban. Thus, we encountered a slight age and urban-rural divide in our data.

# 6.2. Implications

# 6.2.1. Theoretical implications

Our findings reveal social exchange dynamics within the STR platform context. While contributing to existing research on perceived impacts of STRs (e.g., Ref. [17,19,20]), our study shows a more detailed social exchange process among a wider range of stakeholders in two countries. Users perceive both benefits and drawbacks associated with STR platforms. On the positive side, respondents value cultural and infrastructural improvements linked to STRs. These include enhanced access to festivals, museums, public transportation, and a more vibrant and diverse community atmosphere. This aligns with SET by demonstrating how platforms facilitate exchanges that provide perceived cultural and social value for users [92].

However, concerns about environmental and socioeconomic impacts also emerged. Issues like affordability of housing and potential disruption to established community character highlight the cost-benefit analysis inherent in social exchange. These concerns suggest that for some users, macroeconomic factors like housing shortages and the costs associated with STRs outweigh the perceived benefits. Our study strengthens the understanding of these social exchanges within SET. By examining how users weigh the benefits against potential drawbacks, we contribute to a more comprehensive model of social exchange in the context of digital innovation, like STR platforms [53].

## 6.2.2. Practical implications

In terms of practical implications, our findings offer directions for STR platforms. When it comes to the guest-related items (i.e., items only asked for guests and guests/hosts), the country differences were small and sometimes even reversed. The items where the differences were smallest relate to convenience- and service-related and functional/ transactional points (e.g., host responsiveness, host assurances, host reliability), something which a platform has partial control over [93]. By contrast, the 27 perceived impact items that were asked from everyone and the first set of guest-related items that were asked about broader social, cultural, and experiential aspects are less in the control of the platform. In practical terms, platforms might want to think about creating a broader positive impact and experience, rather than focusing too heavily on convenience-related, service-related, and functional/transactional points if they want to create a consistent brand image and gain legitimacy. In this regard, our results align with Uzunca et al. [94]. They found that in countries with higher degrees of institutionalization (e.g., UK, US), more relational strategies that focus less on disruption but more on social integration work best. By contrast, in countries with lower degrees of institutionalization (e.g., Egypt) disruptive strategies that focus on challenging, rather than complementing, existing services are more successful in terms of legitimacy. Since both our countries have high degrees of institutionalization, STR platforms could prioritize socially integrative and sustainability-oriented strategies here, both in terms of marketing and operations. For example, these platforms could embed ESG factors more strongly into the matching process, the platform design (e.g., prioritize listings with lower energy consumption and in non-gentrified neighborhoods) and their communications. This would bring STR platforms closer to the community-oriented roots of the sharing economy, something which platforms should strive for in a Covid and post-Covid world [95].

# 6.3. Limitations and directions for future research

Our research has limitations that future research could address. First, we used cross-sectional data, with the data collection taking place during the Covid-19 pandemic. This might have affected the responses. Future research could do longitudinal surveys, establishing whether the findings are stable or affected by media coverage and other temporal factors. Second, while the comparative angle is a step forward compared to earlier research, we only surveyed respondents in two countries. Future research should include Non-English-speaking countries and compare Western and Non-Western countries. There is also potential in comparing perceptions within and between rural short-term rentals with city and urban provision, where multi-level approaches might prove particularly fruitful. Third, the number of hosts in our sample was too small to draw statistical conclusions for this group. Future research should address this limitation and use samples that include enough hosts to compare them to guests and non-users. Fourth, relying on Prolific for respondent recruitment means that we did not have a random sample. There is likely sampling bias along non-observable variables such as lifestyle preferences, digital literacy, and interest in the subject matter as well as for aspects other than sex, gender and ethnicity such as income. While Prolific does not reveal the number of individuals who declined participation in a specific survey (thus precluding the calculation of a response rate), it notes an average participation rate of 40-50 % among those deemed eligible [96]. Future studies should adopt probability sampling methods to reach genuinely representative conclusions. Finally, to keep the survey length manageable and protect the respondents' anonymity, we had to restrict the collection of demographic information and did not assess the respondents' exact location (e.g., ZIP code level), house ownership vs. renting, or their detailed household and living situation. Future research is encouraged to deepen the analyses about locality and area of residence.

# CRediT authorship contribution statement

**Christoph Lutz:** Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Validation, Visualization, Writing – original draft, Writing – review & editing. **Filip Majetić:** Conceptualization, Formal analysis, Investigation, Methodology, Validation, Visualization, Writing – original draft, Writing – review & editing. **Cristina Miguel:** Conceptualization, Investigation, Validation, Visualization, Writing – original draft, Writing – review & editing. **Rodrigo Perez-Vega:** Conceptualization, Investigation, Validation, Visualization, Writing – original draft, Writing – review & editing. **Brian Jones:** Conceptualization, Investigation, Validation, Writing – original draft, Writing – review & editing.

# Declaration of competing interest

None.

# Data availability

Data will be made available on request.

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# Appendix ASupplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.techsoc.2024.102586.

# Appendix

# Overview of 27 Perceived Impact Items

Question prompt: To what extent, do short-term rentals platforms (e.g., Airbnb) have an impact on your neighbourhood regarding the aspects listed below?

Item	Mean Values US/UK No impact included	Mean Values US/UK No impact excluded
The preservation of natural areas	2.82/2.61	2.95/2.67
The preservation of cultural/historical sites	3.03/2.91	3.21/3.09
Clean air and water	2.74/2.44	2.97/2.74
Peace and quiet	3.00/2.62	2.62/2.36
Quality recreation opportunities	3.40/2.99	3.44/3.23
Litter issues	2.68/2.45	2.40/2.23
Traffic issues	2.68/2.50	2.36/2.30
Crowding and congestion	2.75/2.53	2.43/2.33
Working conditions	2.89/2.51	3.14/2.96
Drug and alcohol abuse	2.45/2.27	2.33/2.42
Crime and vandalism	2.52/2.39	2.45/2.52
Population growth	2.72/2.42	2.98/2.76
A feeling of belonging in my community	2.71/2.46	2.87/2.70
The preservation of my way of life	2.65/2.40	2.88/2.85
Having tourists who respect my way of life	3.23/2.95	3.00/2.99
Resident participation in local government	2.77/2.48	3.10/2.77
My personal life quality	2.65/2.41	3.02/2.91
Festivals, fairs, and museums	3.81/3.37	3.80/3.52
Having live sports to watch in my community	2.75/2.41	3.42/3.12
Good public transportation	3.14/2.89	3.50/3.34
Offering of short-term rentals in general	3.76/3.43	3.34/3.10
Demand of short-term rentals in general	3.71/3.37	3.33/3.12
Attractions	3.56/3.36	3.71/3.53
Bohemian environment	2.78/2.61	3.15/3.01
Melting pot environment	3.34/2.73	3.46/3.00
Availability of affordable housing	2.80/2.61	2.45/2.24
Regeneration of neighbourhoods in decline	3.40/2.99	3.36/3.13

No impact included:  $N_{UK} = 382$ ;  $N_{US} = 384$ ; No impact excluded:  $N_{US} = 197$  (Having live sports to watch in my community) – 316 (Supply of short-term rentals in general);  $N_{UK} = 173$  (Having live sports to watch in my community) – 299 (Supply of short-term rentals in general).

Response options No impact included: 1-No impact, 2-Very negative impact, 3-Somewhat negative impact, 4-Ambivalent impact, 5-Somewhat positive impact, 6-Very positive impact.

Response coding No impact excluded: 1-Very negative impact, 2-Somewhat negative impact, 3-Ambivalent impact, 4-Somewhat positive impact, 5-Very positive impact.

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