SSOAR

Open Access Repository
www.ssoar.info

Exploring the Motivations of Suppliers in the Collaborative Economy: a Sustainability Approach

Vicente, María Rosalía; Gil-de Gómez, Carlos

Veröffentlichungsversion / Published Version
Zeitschriftenartikel / journal article

Empfohlene Zitierung / Suggested Citation:
Vicente, M. R., & Gil-de Gómez, C. (2021). Exploring the Motivations of Suppliers in the Collaborative Economy: a Sustainability Approach. *Sustainability*, *13*(5), 1-11. https://doi.org/10.3390/su13052465

Nutzungsbedingungen:
Dieser Text wird unter einer CC BY Lizenz (Namensnennung) zur Verfügung gestellt. Nähere Auskünfte zu den CC-Lizenzen finden Sie hier:
https://creativecommons.org/licenses/by/4.0/deed.de

Terms of use:
This document is made available under a CC BY Licence (Attribution). For more Information see:
https://creativecommons.org/licenses/by/4.0

gesis
Leibniz-Institut
für Sozialwissenschaften

Mitglied der
Leibniz-Gemeinschaft

Diese Version ist zitierbar unter / This version is citable under:
https://nbn-resolving.org/urn:nbn:de:0168-ssoar-78505-6

sustainability

MDPI

Article

Exploring the Motivations of Suppliers in the Collaborative Economy: A Sustainability Approach

María Rosalía Vicente * and Carlos Gil-de-Gómez

Department of Applied Economics, School of Economics and Business, University of Oviedo, Campus del Cristo s/n, 33006 Oviedo, Spain; carlosgildegomez@gmail.com

* Correspondence: mrosalia@uniovi.es; Tel.: +34-985-105-053

Abstract: In recent years, the collaborative economy has drawn a lot of academic attention. Most research has focused on the consumer side, whereas the evidence regarding individuals as providers is scarce. Based on the triple-p (planet, people, profit) framework of the sustainability approach, this paper empirically investigates the reasons that lead individuals to offer services in the collaborative economy. Using microdata from representative samples of national populations in the member states of the European Union, Heckman-type probit models have been estimated for the provision of transport and accommodation collaborative services. The results show that the decision to provide is largely shaped by individuals' sociodemographic features. Social and environmental reasons are found to drive the decision to provide transport services. Meanwhile, economic reasons appear to be the key drivers behind the offering of accommodation services.

Keywords: collaborative economy; sharing economy; p2p; providers; sustainability

check for updates

Citation: Vicente, M.R.; Gil-de-Gómez, C. Exploring the Motivations of Suppliers in the Collaborative Economy: A Sustainability Approach. *Sustainability* **2021**, *13*, 2465. https://doi.org/10.3390/su13052465

Academic Editor: Martina Toni

Received: 9 February 2021
Accepted: 19 February 2021
Published: 25 February 2021

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Copyright: © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

1. Introduction

In 1987, the Brundtland report of the United Nations (UN) General Assembly highlighted the importance for countries worldwide to foster sustainable development to ensure that the needs of the present were met "without compromising the ability of future generations to meet their own needs" [1] (p.16). Since then, sustainable development has grown in importance, culminating in the UN's vow for the UN Sustainable Development Goals to be reached by 2030 in 2015. Achieving these goals requires citizens to reconsider their lifestyles in terms of their impact on society, the economy and the environment, i.e., the three pillars of sustainability [2,3].

Recent attention has been drawn towards the collaborative economy (CE) (also known as the sharing economy, platform economy or peer-to-peer economy, among others). The CE is characterized by the matching of individuals who have resources with idle capacity with other individuals who need such resources, doing so through internet-based platforms [4,5]. The CE has been claimed to bring potential benefits in all areas of sustainability [6,7]. First, it opens up new opportunities for employment, business and entrepreneurship [4]. Consumers now have access to more variety, generally at lower prices than those in traditional markets [8]. Second, it brings some positive social effects: it facilitates the meeting of new people and connects individuals and communities, which might build up social capital and social cohesion and spur consumer empowerment [9,10]. As for the environment, a central argument is that a smaller quantity of goods will be needed due to the CE's promotion of accessing rather than owning goods, which implies less energy, water and greenhouse emissions, ultimately contributing to fighting global climate change and reinforcing the circular economy [11–14]. However, these positive effects are far from clear, and several critical voices have been raised [10,15,16]. The environmental effects are very complex and might vary according to activity, business models and territory, depending on how the CE evolves [17–19]. Rebound effects are also possible: since the products available on collaborative websites are generally cheaper than those in traditional

markets, there is more income to spend, leading to more consumption. The environmental effect depends on how this extra income is spent [20].

To realize the potential of the CE for sustainable development, it is necessary to understand people's motivations to participate [21–27]. Economic reasons (such as lower prices, savings on costs, access to variety and convenience) are important drivers for participation [21,24,25,27,28]. Likewise, since CE-related interactions make it possible to meet new people, get new social experiences, connect with others and be part of the community, there are clear social reasons to participate as well [29–34]. Participation could also be driven by environmental reasons; specifically, individuals might rather access goods than own them, and owners would be able to facilitate the access to these goods for other people in order to increase usage efficiency and, thus, contribute to the wellbeing of the environment [9,35]. However, the empirical evidence in this regard is mixed. While several studies find no relationship between environmental or sustainability reasons to participate in the CE [27], others do find that it is an important driver [21,28,36].

The relative importance of the described drivers is likely to vary across product types because their economic values, the degree of social interaction involved and the derived environmental effects are different [10,21,23]. Accommodation and cars are by far the goods with the highest (relative) economic value in the CE, and economic reasons might be especially important in these cases. Social reasons might also play an important role regarding accommodation [30,31] and car sharing compared to other types of services (e.g., food services). Meanwhile, environmental reasons are mainly related to car use [23].

Furthermore, these drivers might play a different role for users and providers, especially regarding economic reasons [23,24]. For example, if the good in question has a high economic value, the user might obtain large economic benefits by renting or borrowing compared to the option of buying it; in contrast, the provider might not be able to charge a large amount of money for allowing access [23], except for some accommodation services. In the particular case of car (ride) sharing, many providers might simply want to earn back part of the cost of the trip. Moreover, users and providers face different types of uncertainties about the economic benefits they might obtain. Users might be worried about not getting what they expected, "what-if" problems and trust concerns [21,27,31,37]. Providers' main concerns tend to be concerning legal issues, specifically in in terms of how to offer the service legally, how to declare the derived income and their own work status [4]. The empirical findings so far are not conclusive. Belloti et al. [24] and Böcker and Meelen [23] both find that users are more economically motivated than providers, whereas Hawlitschek et al. [22] and Sung et al. [26] show that social reasons (and not economic motives) do matter for users, while providers are driven by economic, social [22,38] and environmental reasons [26]. Nonetheless, the available evidence on providers is scarce.

This paper tries to fill this gap in the literature by investigating the drivers of people acting as suppliers in order to gain a better understanding of their decision-making process. Relying on the triple p (people-planet-profit) framework of sustainability [9,23], we focus on the economic, environmental and social drivers that lead individuals to offer collaborative transport and accommodation services. The contributions to the existing literature are as follows. In the first place, we provide empirical evidence in an area with scarce one, i.e., providers in the CE [39] and we complement previous literature which has focused on intended provision [23]. In the second place, we show evidence for the whole European Union (EU). Previous research has focused on particular geographical areas [21,23] or certain platforms [27,35]. Our analysis will make it possible to assess the situation of the EU and to identify any significant differences between countries. Similar to Albinsson et al. [40], we analyze data from the full population, not only from those that participate in the CE; hence, we will be able to determine whether the decision to provide varies across sociodemographic groups and, therefore, whether these findings would contribute to the larger debate about the social effects of the CE. Finally, instead of studying the CE as a whole, which would overlook the fact that different activities might be driven by different reasons, we focus on two major activities: collaborative transport and accommodation services.

2. Materials and Methods

To analyze the reasons that lead individuals to offer CE services, microdata were collected from the Flash Eurobarometer 467 [41], which gathers information about European residents' perceptions and participation in the CE.

The survey population covered individuals aged 15 years old and older living in one of the 28 member states of the EU (EU-28) (including the United Kingdom). Random representative samples were drawn in each of the member states, with a total of 26,544 interviews collected by phone from the 23rd to the 30th of April 2018.

The survey questionnaire started by clarifying to respondents the concept of collaborative platforms as stated by the EU (the definition was given as "specialist internet-based websites or apps that provide an open marketplace where consumers can connect with people offering services") [41] (p.1). Next, respondents were asked whether they have ever offered any service through these kinds of platforms. If the answer was 'yes', then there was a follow-up question about the sectors of provision, the reasons for offering the service and any problem faced in the provision of the services. All of these survey questions were yes/no questions. Additionally, sociodemographic information was collected from all survey participants regardless of whether or not they participated in the CE.

In our study, the variable of interest is whether or not an individual i (i = 1, 2, . . . , n) has offered services in sector j (j = car, accommodation) in the CE. Given the binary and discrete nature of this variable, the most appropriate methodological approach is the use of discrete choice models. Specifically, the following latent variable model can be specified:

$$y^* = X\beta + \varepsilon \; y = 1 \; [y^* > 0] \quad (1)$$

where y^* is a latent variable and only the binary variable y is observed, taking value 1 if an individual decides to offer services in sector j and is set at 0 otherwise, X is the vector of explanatory variables, which includes economic, social and environmental reasons, and ε is the error term. Under the assumption of ε being normally distributed with mean zero and variance one, a binary probit model will be estimated.

The estimation of Equation (1) only makes sense for individuals who currently provide services in the CE. Since the sample comes from the full population, if the estimation is directly restricted to individuals reporting as being providers, some sample selection bias could be introduced [42]. An appropriate empirical strategy consists of the estimation of Heckman-type models, with a first selection equation to explain an individual's decision to provide services in the CE (base population: all respondents) and a second outcome equation to explain the decision to provide a particular service (base population: respondents having reported their provision of services in the CE). Since the dependent variables in both equations are binary, the probit models will be estimated. The selection equation regression includes respondents' sociodemographic features as regressors. The outcome equation, as described in Equation (1), includes variables related to the economic, social and environmental reasons that lead people to provide transport and accommodation services.

The suitability of this approach can be checked through a chi-square test of independence between the selection and outcome equations. The null hypothesis states that the correlation between the error terms of the two equations (ρ) is equal to zero, i.e., the selection and outcome equations are independent. In such a case, sample selection bias is not an issue and Heckman-type models would present similar estimates to those obtained by estimating separate probit models. In the opposite case, if the null hypothesis is rejected because ρ is found to be statistically and significantly different from zero, then sample bias might be an issue and Heckman-type models would be appropriate.

Table A1 describes the variables used in the analysis, as operationalized from the survey questions.

The economic reasons that might drive the decision to provide services in the CE are measured by a set of dummy variables which consider pecuniary and nonpecuniary motives; specifically, income (INCOME), the flexibility of its hours (FLEXIB), the fact that

it is an easy way to become a service provider (OP_PROV), the ability to offer additional services (ADDITIONAL) and access to more consumers (ACCESS).

Nonetheless, these benefits are to some extent uncertain, due to the vagueness of some legal and tax issues. Three variables are included to take account of these concerns (LEGAL, TAX, WORK_STATUS).

Social reasons are proxied by a dummy variable (INTERACTION) which considers that the respondent acknowledges the opportunity to interact with interesting people as a reason to use collaborative platforms.

Environmental reasons are measured by a dummy variable (SUSTAINABLE) which indicates that the respondent reported that the CE is a more sustainable and efficient way to use available assets as a reason to provide services.

Finally, in the selection equations, we include variables related to respondents' sociodemographic features; in particular, gender, age, educational attainment, employment situation and location. To control for potential cross-regional variation, we consider regional gross domestic product per capita data at the regional (NUTS2) level (Reg_GDP). The latter data are sourced from Eurostat [43]. In addition, to control for cross-country variation, we consider respondents' country of residence. This categorical variable has been coded using "deviation from the means" coding method [44]. This method sets the category of reference to −1 and the rest of the categories are codified as 0,1 correspondingly. This will allow us to compare each category (each country) with the overall mean, i.e., the mean of all groups (the EU-28), which appears to be of more interest than the standard simple binary coding.

3. Results

Tables 1 and 2 show the results of the estimation of the Heckman-type probit models with sample selection. Columns (1) and (2) correspond to the selection and outcome equations for transport collaborative services, respectively. Correspondingly, columns (3) and (4) refer to the selection and outcome equations for accommodation collaborative services.

Table 1. Probit estimated coefficients of the selection and outcome equations.

Dependent Variables	**PROVIDER**	**TRANSPORT**	**PROVIDER**	**ACCOMMOD**
Independent Variables	**(1)**	**(2)**	**(3)**	**(4)**
INCOME		−0.146 **		0.241 ***
FLEXIB		−0.109 *		−0.132
OPPOR_PROVIDE		−0.027		0.050
ADDITIONAL		0.072		0.052
ACCESS		−0.286 ***		0.372 **
LEGAL		0.026		0.056
TAX		0.081		0.143
WORK_PROB		0.204 *		0.106
INTERACTION		0.263 ***		0.038
SUSTAINABILITY		0.443 ***		−0.106
FEMALE	−0.108 **		−0.068	
AGE	−0.014 ***		−0.014 ***	
HIGHSCHOOL	0.218 *		0.301 **	
COLLEGE/UNIVER	0.490 ***		0.572 ***	
STUDYING	0.173		0.260 **	
EMPLOYEES	−0.184 ***		−0.303 ***	
MANUAL	−0.349 ***		−0.465 ***	
UNEMPLOYED	−0.283 **		−0.373 ***	
INACTIVE	−0.309 ***		−0.404 ***	
SMTOWN	0.063		0.057	
LTOWN	0.190 ***		0.230 ***	
Reg_GDP	0.053 **		0.038	
Rho		−1.234 ***		−0.276
Observations		26,544		26,544
Chi-square statistic (H_0:ρ = 0)		42.81 ***		1.331

Note: ***, **, *, indicate statistical significance at 1, 5, and 10 percent levels, respectively.

Table 2. Probit estimated coefficients for the "country" variable in the selection equations.

	PROVIDER	PROVIDER		PROVIDER	PROVIDER
	(1)	(3)		(1)	(3)
Belgium	0.134 **	0.271 ***	Cyprus	−0.030	−0.128 ***
Netherlands	−0.178 ***	−0.220 ***	Czech Republic	−0.246 ***	−0.282 ***
Germany	0.023	0.034	Estonia	0.050 *	0.146 ***
Italy	0.274 *	0.220 *	Hungary	0.554 ***	0.618 ***
Luxembourg	0.082 **	0.062 **	Latvia	−0.276 ***	−0.432 ***
Denmark	−0.093 ***	0.022	Lithuania	−0.051	0.007
Ireland	−0.202 ***	−0.163 ***	Malta	0.011	−0.070 **
United Kingdom	−0.334 ***	−0.331 ***	Poland	0.218 ***	0.265 ***
Greece	0.139 ***	0.144 ***	Slovakia	0.237 ***	0.177 ***
Spain	−0.258 ***	−0.264 ***	Slovenia	−0.003	−0.030
Portugal	−0.132 ***	−0.077 **	Bulgaria	0.149 ***	0.170 ***
Finland	−0.099 *	−0.099 *	Romania	0.106 ***	0.130 ***
Sweden	−0.005	−0.010	Croatia	−0.061	−0.098
Austria	−0.559 ***	−0.547 ***			

Notes: See notes under Table 1. (1) and (3) indicate that these estimates continue those of columns (1) and (3) in Table 1, respectively.

The last row of Table 1 presents the results of the chi-square test of independence between the selection and outcome equations. The results for the empirical model of collaborative transport services indicate the rejection of the null hypothesis, i.e., the independence of the two equations. Hence, Heckman-type models are an appropriate methodological strategy to control for sample selection biases. For collaborative accommodation services, we fail to reject the null hypothesis. Then, sample selection problems seem not to be present in this case, and estimates from the Heckman model will be similar to those obtained by estimating each equation separately, i.e., as two independent probit models.

Focusing on the estimated coefficients of the selection equations (columns 1 and 3), we note that the decision to offer services in the CE is mainly shaped by respondents' sociodemographic features. It is important to note that, despite having the same dependent variable and same regressors, there are some differences in the estimated coefficients of the selection equations, as shown in columns (1) and (3). The reason for this is that each selection equation is jointly estimated with the corresponding outcome equation. In any case, practically all of the variables are statistically significant. Specifically, we find that women are less likely than men to offer services in the CE. Age also has a negative association with provision. Hence, as age increases, the likelihood of providing collaborative services decreases. Regarding educational attainment, we find a positive association with the provision of services. Compared to those who stopped education at 15 years old or less, individuals who stopped at 16–19 years old (high school education) and those who stopped at 20 years old or older (college/university education) are significantly more likely to offer services in the CE. In fact, the higher the educational level, the higher the likelihood of offering services. As far as the employment situation is concerned, self-employed individuals are more likely to provide services in the CE than any other work-related group (note the negative and statistically significant signs of EMPLOYEE, MANUAL, UNEMPLOYED, and INACTIVE). We also observe that offering CE services is mainly associated to individuals living in large towns rather than in rural areas or villages.

Table 2 shows cross-country differences. As explained in the previous section, the variable COUNTRY has been coded so that each estimated coefficient shows the individual (country) effect compared to the global average effect (EU-28), once controlled for sociodemographic characteristics. Positive (negative) and statistically significant coefficients indicate that the country is above (below) the European average, ceteris paribus sociodemographic features. Estimates show an uneven distribution by countries, with some of them far above the European average (e.g., Hungary and Poland) and others below it (e.g., Austria).

As regards the reasons that drive an individual's decision to provide collaborative transport and accommodation services, estimates are shown in columns (2) and (4) of Table 1, respectively.

Focusing on the provision of transport services, we observe either negative or non-significant associations with economic reasons. Specifically, individuals providing collaborative transport services are less likely to indicate either income, the flexibility of hours or the possibility to access more consumers as the reasons which drove them to offer this service, compared to individuals providing other services. The results also suggest the existence of some problems related to work status. In this sense, individuals providing collaborative transport services are statistically significantly more likely to report the unclear impact that this might have on their employment status as a problem. As for social and environmental reasons, the two variables included for measuring these issues are statistically significant at the 1 percent level. Hence, individuals providing collaborative transport services are significantly more likely to report that the reasons to offer services are both the opportunity to interact with interesting people and that it implies a more sustainable and efficient use of available assets. This latter reason appears to be especially relevant given the magnitude of its estimated coefficient, which is a bit more than 1.6 times that of social reasons.

Referring to the provision of collaborative accommodation services, the key point to note in our estimates is that only some specific economic reasons are statistically significant. We have not detected any significant problems that influence this decision. In particular, our findings indicate that an individuals' provision of collaborative accommodation services is mainly driven by the income they can obtain and the opportunity to access more potential consumers. The estimated coefficient for the latter is slightly larger than the former, which might be related to the fact that the total income that the host can obtain ultimately depends on the number of guests. Hence, the importance of accessing a large pool of potential guests.

4. Discussion

In this paper, we have explored to what extent economic, social and environmental reasons drive individuals to offer transport and accommodation services in the CE.

Our findings indicate that the decision to offer services is largely shaped by respondents' sociodemographic features. Specifically, estimates suggest that young males with high education, self-employed, and living in large towns are the most likely to provide services. These results are in line with previous findings from the United States (US), which showed that the use of CE internet-based platforms was mainly associated with young, highly-educated individuals around urban population centers [45,46].

In addition, there are substantial differences across the EU's countries once controlled for sociodemographic features. Such differences might suggest the existence of various cultural, institutional, and regulatory frameworks that influence the development of the CE. In this sense, Schor [47] (p.12), indicates that the expansion of the practices of the CE in Europe is "likely to be embedded in" their specific political, regulatory, and social contexts. Specifically, social embeddedness might be a crucial element not only for the development of the CE but also for its impact on sustainability [48]. There might be at least three potential reasons for the observed differences across countries. First, the existence of different cultural practices that make national populations more or less prone to CE-related practices could be a reason. Hence, individuals' decisions to provide or not should be seen as the result of both personal and cultural differences [14,49]. Ianole–Călin et al. [50] provide some evidence in this regard when analyzing collaborative consumption in Romania and Italy. For Finland, Hamari et al. [28] find that, in the CE, sustainability reasons are only important for environmentally-motivated consumers. For the particular case of Hungary, which estimates show to be well-over the EU-28 average, peer-to-peer sharing practices have a long tradition in the country since the 80s; in contrast, Austria (well below the average) is characterized by a low level of risk-taking in new businesses, including those of the CE [51]. Beaumont [52] suggests that the timid development of the

CE is due to the lack of trust among the Polish population. Second, the institutional logic in each country might influence the development of the CE. Frenken [20] outlines three scenarios that depend on the prevailing institutional logic: market (US), state (Sweden), and community (Germany). In fact, Sweden has launched a national program to actively work on the sharing economy, the Sharing Cities Sweden Program [53]. Battino and Lampreu [54] highlight the interest of the CE to promote the sustainable development of Italian rural and inland areas. Finally, the existence of different levels in the development and implementation of regulatory frameworks over these activities might be a reason [55]. In fact, Naumanen et al. [56] and Escande-Varniol [57] report large differences across the member states in the regulations and measures in this area.

As to the provision of collaborative transport and accommodation services, our findings point out that the reasons behind the decision to offer these services vary depending on the particular service.

Specifically, social and environmental reasons are the main drivers for individuals to offer collaborative transport services compared to the provision of other services. Interestingly enough, these individuals are significantly less likely to report economic motives as the reasons for providing this service. Similar results were obtained by Böcker and Meelen [23] and Mugion et al. [58] who analyzed the reasons for participating in the CE in samples of Amsterdam and Rome populations, respectively. Likewise, Wilhelms et al. [59] and Mattia et al. [36] concluded that economic motives by themselves were not enough for individuals to offer car sharing services, but social and environmental reasons did matter. Income, work time flexibility and access to more consumers are all negatively associated with the offer of collaborative transport services. Additionally, providers appear to be concerned about the potential problems that the provision of these services might cause on their work situation. In fact, the European Commission [4] highlights that the flexible working arrangements, which characterize the CE, generate uncertainty about individuals' employment situation, the corresponding rights and social protection.

In contrast, economic reasons are key motives for the provision of collaborative accommodation services, both in terms of obtaining income and being able to access a large number of potential customers. These results contrast with the findings by Sung et al. [26] who suggested that the three types of reasons were important for accommodation activity; however, we must notice that these authors focus on individuals' attitudes and not properly on their decision to provide.

It is important to take into account that, while we find that environmental reasons drive the decision to offer transport collaborative services, this result does not directly imply that there will be a positive effect on the environment. As previously argued, the environmental effects of the CE are very complex, and some rebound is possible [20].

Analogously, the nonsignificance of environmental reasons in collaborative accommodation services does not mean that individuals providing these services cannot support and promote sustainability with these services. In fact, they could have some positive influence on sustainable customer consumption behaviors by promoting, among their guests, minimum energy waste and recycling, among other practices [35].

Some theoretical and practical implications can be derived from our results. In the first place, this paper contributes to the field research on the CE, aiming to fill the gap on the quantitative research that investigates the drivers of the participation in the CE. Specifically, our work highlights the need to appropriately distinguish between the two sides of the market (i.e., consumers and providers) to properly identify the set of reasons behind the decision to participate. Findings emphasize the complexity of the CE, as it is a phenomenon with very specific sectoral features. Hence, the importance of moving from a general concept of the CE, as a whole, to more refined definitions of the CE in each sector (e.g., the CE in transport services, the CE in accommodation services). Given the potential of the CE to impact the different areas of sustainability, the framework of the triplet p (planet, prosperity, people) reveals as an appropriate approach to identify the areas that

providers' reasons align with. Nonetheless, findings suggest the need to enrich this model by taking into account cultural and institutional aspects.

In the second place, findings offer some insights for practical implications for both internet platforms businesses and policymakers. Results show that the decision to provide services in the CE is largely shaped by respondents' sociodemographic features, with large groups of population not taking part in it. On the one hand, for internet platforms, these results offer information about the targeted groups in order to increase the offer viability and variety of their services. On the other hand, policymakers should study whether or not these divides are temporary due to the recency of the phenomena. In case they are not, they should design targeted campaigns to foster participation in the CE in order to fulfill its potential for sustainability. Such campaigns should have an integrated approach that informs the population about the opportunities that the CE brings in the different areas of sustainability. Moreover, they should clarify the implications that becoming a provider make work status and related issues more complicated.

Some limitations might be considered in our analysis, specifically regarding collaborative transport services. This kind of service is defined too generally, and data do not specify whether it refers to car-sharing, car-renting or other means of transport (e.g., bikes). Accordingly, the results refer to the collaborative transport activity in general and no claims can be made for particularized services (e.g., car-sharing).

Finally, more research is needed on the supply side (i.e., on individuals offering services in the CE). In a context in which there is a lot of uncertainty about the future development of the CE, with both business-to-consumers and consumer-to-consumer solutions continuing, some authors have already noticed some trends with consumer-to-business-to-consumer solutions [60]. If that trend continues, it might dilute individuals' original reasons to provide services and further professionalize the CE [20], making potential environmental and social benefits even more uncertain. In addition, there is a need for research on the role of cultural cross-national practices in the development of the CE; specifically, on how they shape the diffusion of this phenomenon across their respective populations and how they might influence sustainability practices.

Author Contributions: Conceptualization, M.R.V. and C.G.-d.-G.; methodology, M.R.V. and C.G.-d.-G.; software, M.R.V. and C.G.-d.-G.; validation, M.R.V. and C.G.-d.-G.; formal analysis, M.R.V. and C.G.-d.-G.; investigation, M.R.V. and C.G.-d.-G.; writing—original draft preparation, M.R.V. and C.G.-d.-G.; writing—review and editing, M.R.V. and C.G.-d.-G.; supervision, M.R.V. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Data Availability Statement: Data are available from: European Commission, "Flash Eurobarometer 467 (The Use of the Collaborative Economy) (ZA6937 Data file Version 1.0.0)." GESIS Data Archive, Cologne, 2018, doi:10.4232/1.13159.

Conflicts of Interest: The authors declare no conflict of interest.

Appendix A

Table A1. Description of variables.

Dependent Variables	Description
PROVIDER	=1, if respondent reports having provided collaborative services (0, otherwise).
TRANSPORT	=1, if respondent reports having provided collaborative transport services (0, otherwise).
ACCOMMOD	=1, if respondent reports having provided collaborative accommodation services (0, otherwise)
	Independent Variables
Economic reasons	If respondent reports as a reason/problem to provide collaborative services:
INCOME	=1, income (0, otherwise)
FLEXIB	=1, the flexibility of working hours (0, otherwise)
OPPOR_PROVIDE	=1, that it is an easy opportunity to become a service provider (0, otherwise)
ADDITIONAL	=1, that it is an opportunity offer additional o more innovative services (0, otherwise)
ACCESS	=1, the access to more consumers (0, otherwise)
LEGAL	=1, that it is was difficult or there was a lack of clarity about how to provide the service legally (0, otherwise)
TAX	=1, that the system for paying taxes was complex (0, otherwise)
WORK_PROB	=1, that the impact on his/her employment status was unclear (0, otherwise)
Social reasons	
INTERACTION	=1, the opportunities to interact with interesting people (0, otherwise)
	Environmental reasons
SUSTAINABILITY	=1, that it is a more sustainable and efficient use of available assets (0, otherwise)
	Sociodemographic features
FEMALE	=1, if female respondent (0, otherwise)
AGE	Respondent's age
Education	Respondent's age when stopped full-time education (reference: up to 15 years old)
HIGHSCHOOL	=1, if respondent stopped full-time education when aged 16–19 years old (0, otherwise)
COLLEGE/UNIVER	=1, if respondent stopped full-time education when aged 20 years old and older (0, otherwise)
STUDYING	=1, if respondent is still studying (0, otherwise)
Employment	Respondent's employment situation (reference: self-employed)
EMPLOYEES	=1, if respondent is an employee (0, otherwise)
MANUAL	=1, if respondent is a manual worker employee (0, otherwise)
UNEMPLOYED	=1, if respondent is unemployed (0, otherwise)
INACTIVE	=1, if respondent is not in the labor market (0, otherwise)
Area	Type of area where respondent lives (reference: rural area/village)
SMTOWN	=1, if respondent lives in a small/medium-sized town (0, otherwise)
LTOWN	=1, if respondent lives in a large town (0, otherwise)
Reg_GDP	Logarithm of the Regional Gross Domestic Product per capita (purchasing power standards per inhabitant) at NUTS2 level
COUNTRY	Categorical variable, with each category indicating respondent's country of residence

References

1. World Commission on Environment and and Development. *Our Common Future*; Oxford University Press: Oxford, UK, 1987.
2. Strange, T.; Bayley, A. *OECD Insights Sustainable Development. Linking Economy, Society, Environment*; OECD: Paris, French, 2008.
3. Toni, M.; Renzi, M.F.; Mattia, G. Understanding the link between collaborative economy and sustainable behaviour: An empirical investigation. *J. Clean. Prod.* **2018**, *172*, 4467–4477. [CrossRef]
4. European Commission. *A European Agenda for the Collaborative Economy*; European Commission: Luxembourg, 2016.
5. Petropoulos, G. An economic review of the collaborative economy. *Bruegel Policy Contrib.* **2017**, *5*.
6. Roblek, V.; Meško, M.; Podbregar, I. Impact of Car Sharing on Urban Sustainability. *Sustainability* **2021**, *13*, 905. [CrossRef]
7. European Commission. *Environmental Potential of the Collaborative Economy*; European Commission: Luxembourg, 2018.
8. Sundararajan, A. *The Sharing Economy. The End of Employment and the Rise of Crowd-based Capitalism*; MIT Press: Cambridge, UK, 2016.
9. Botsman, R.; Rogers, R. *What's Mine Is Yours, the Rise of Collaborative Consumption*; Harper Collins: London, UK, 2010.
10. Cherry, C.E.; Pidgeon, N.F. Is sharing the solution? Exploring public acceptability of the sharing economy. *J. Clean. Prod.* **2018**, *195*, 939–948. [CrossRef]
11. Ala-Mantila, S.; Ottelin, J.; Heinonen, J.; Junnila, S. To each their own? The greenhouse gas impacts of intra-household sharing in different urban zones. *J. Clean. Prod.* **2016**, *135*, 356–367. [CrossRef]

12. Amatuni, L.; Ottelin, J.; Steubing, B.; Mogollon, J. Does car sharing reduce greenhouse gas emissions? Assessing the modal shift and lifetime shift rebound effects from a life cycle perspective. *J. Clean. Prod.* **2020**, 121869. [CrossRef]
13. Cohen, B.; Muñoz, P. Sharing cities and sustainable consumption and production: Towards an integrated framework. *J. Clean. Prod.* **2016**, *134*, 87–97. [CrossRef]
14. Belk, R. You are what you can access: Sharing and collaborative consumption online. *J. Bus. Res.* **2014**, *67*, 1595–1600. [CrossRef]
15. Geissinger, A.; Laurell, C.; Öberg, C.; Sandström, C. How sustainable is the sharing economy? On the sustainability connotations of sharing economy platforms. *J. Clean. Prod.* **2019**, *206*, 419–429. [CrossRef]
16. Griffiths, M.A.; Perera, B.Y.; Albinsson, P.A. Contrived Surplus and Negative Externalities in the Sharing Economy. *J. Mark. Theory Pract.* **2019**, *27*, 445–463. [CrossRef]
17. Curtis, S.K.; Lehner, M. Defining the sharing economy for sustainability. *Sustainability* **2019**, *11*, 567. [CrossRef]
18. Laukkanen, M.; Tura, N. The potential of sharing economy business models for sustainable value creation. *J. Clean. Prod.* **2020**, *253*, 120004. [CrossRef]
19. Curtis, S.K.; Mont, O. Sharing economy business models for sustainability. *J. Clean. Prod* **2020**, 121519. [CrossRef]
20. Frenken, K. Political economies and environmental futures for the sharing economy. *Philos. Trans. R. Soc. A Math. Phys. Eng. Sci.* **2017**, *375*. [CrossRef]
21. Hawlitschek, F.; Teubner, T.; Gimpel, H. Consumer motives for peer-to-peer sharing. *J. Clean. Prod.* **2018**, *204*, 144–157. [CrossRef]
22. Hawlitschek, F.; Teubner, T.; Gimpel, H. Understanding the sharing economy-Drivers and impediments for participation in peer-to-peer rental. *Proc. Annu. Hawaii Int. Conf. Syst. Sci.* **2016**, *2016*, 4782–4791. [CrossRef]
23. Böcker, L.; Meelen, T. Sharing for people, planet or profit? Analysing motivations for intended sharing economy participation. *Environ. Innov. Soc. Transit.* **2017**, *23*, 28–39. [CrossRef]
24. Bellotti, V.; Ambard, A.; Turner, D.; Gossmann, C.; Demková, K.; Carroll, J.M. A muddle of models of motivation for using peer-to-peer economy systems. *Conf. Hum. Factors Comput. Syst. Proc.* **2015**, *2015*, 1085–1094. [CrossRef]
25. Lamberton, C.P.; Rose, R.L. When is ours better than mine? A framework for understanding and altering participation in commercial sharing systems. *J. Mark.* **2012**, *76*, 109–125. [CrossRef]
26. Sung, E.; Kim, H.; Lee, D. Why do people consume and provide sharing economy accommodation?-A sustainability perspective. *Sustainability* **2018**, *10*, 2072. [CrossRef]
27. Möhlmann, M. Collaborative consumption: Determinants of satisfaction and the likelihood of using a sharing economy option again. *J. Consum. Behav.* **2015**, *14*, 193–207. [CrossRef]
28. Hamari, J.; Sjöklint, M.; Ukkonen, A. The sharing economy: Why people participate in collaborative consumption. *J. Assoc. Inf. Sci. Technol.* **2016**, *67*, 2047–2059. [CrossRef]
29. Barnes, S.J.; Mattsson, J. Understanding collaborative consumption: Test of a theoretical model. *Technol. Forecast. Soc. Chang.* **2017**, *118*, 281–292. [CrossRef]
30. Tussyadiah, I.P. Factors of satisfaction and intention to use peer-to-peer accommodation. *Int. J. Hosp. Manag.* **2016**, *55*, 70–80. [CrossRef]
31. Tussyadiah, I.P.; Pesonen, J. Drivers and barriers of peer-to-peer accommodation stay—An exploratory study with American and Finnish travellers. *Curr. Issues Tour.* **2018**, *21*, 703–720. [CrossRef]
32. Ozanne, L.K.; Ballantine, P.W. Sharing as a form of anti-consumption? An examination of toy library users. *J. Consum. Behav.* **2010**, *9*, 485–498. [CrossRef]
33. Ozanne, L.K.; Ozanne, J.L. A Child's Right to Play: The Social Construction of Civic Virtues in Toy Libraries. *J. Public Policy Mark.* **2011**, *30*, 264–278. [CrossRef]
34. Albinsson, P.A.; Perera, B.Y. Alternative marketplaces in the 21st century: Building community through sharing events. *J. Consum. Behav.* **2012**, *11*, 303–315. [CrossRef]
35. Wang, Y.; Xiang, D.; Yang, Z.Y.; Ma, S.S. Unraveling customer sustainable consumption behaviors in sharing economy: A socio-economic approach based on social exchange theory. *J. Clean. Prod.* **2019**, *208*, 869–879. [CrossRef]
36. Mattia, G.; Mugion, R.G.; Principato, L. Shared mobility as a driver for sustainable consumptions: The intention to re-use free-floating car sharing. *J. Clean. Prod.* **2019**, *237*, 117404. [CrossRef]
37. Jung, J.; Park, E.; Moon, J.; Ex, W.S. Exploration of Sharing Accommodation Platform Airbnb Using an Extended Technology Acceptance Model. *Sustainability* **2021**, *13*, 1185. [CrossRef]
38. Zhang, T.; Bufquin, D.; Lu, C. A qualitative investigation of microentrepreneurship in the sharing economy. *Int. J. Hosp. Manag.* **2019**, *79*, 148–157. [CrossRef]
39. Costello, J.P.; Reczek, R.W. Providers Versus Platforms: Marketing Communications in the Sharing Economy. *J. Mark.* **2020**, *84*, 22–38. [CrossRef]
40. Albinsson, P.A.; Perera, B.Y.; Nafees, L.; Burman, B. Collaborative Consumption Usage in the US and India: An Exploratory Study. *J. Mark. Theory Pract.* **2019**, *27*, 390–412. [CrossRef]
41. European Commission. Flash Eurobarometer 467 (The Use of the Collaborative Economy) (ZA6937 Data file Version 1.0.0). *GESIS Data Arch. Cologne* **2018**. [CrossRef]
42. Wooldridge, J.M. *Econometric Analysis of Cross Section and Panel Data*, 2nd ed.; MIT Press: Cambridge, UK, 2010.
43. Eurostat. Regional GDP Statistics. 2019. Available online: https://ec.europa.eu/eurostat/news/themes-in-the-spotlight/regional-gdp (accessed on 25 April 2020).

44. Hosmer, D.W.; Lemeshow, S. *Applied Logistic Regression*; John Wiley & Sons, Inc.: Hoboken, NJ, USA, 2000.
45. Schor, J.B. Does the sharing economy increase inequality within the eighty percent?: Findings from a qualitative study of platform providers. *Camb. J. Reg. Econ. Soc.* **2017**, *10*, 263–279. [CrossRef]
46. Schor, M.; Canso, J. The sharing economy. In *The Oxford Handbook of Consumption 14*; Woodward, I., Wherry, F.F., Eds.; Oxford University Press: Oxford, UK, 2019; pp. 51–76.
47. Schor, J. Debating the Sharing Economy. 2014. Available online: https://greattransition.org/publication/debating-the-sharing-economy (accessed on 25 April 2020).
48. Fan, Y.; Xia, M.; Zhang, Y.; Chen, Y. The influence of social embeddedness on organizational legitimacy and the sustainability of the globalization of the sharing economic platform: Evidence from Uber China. *Resour. Conserv. Recycl.* **2019**, *151*, 104490. [CrossRef]
49. Weng, J.; Hsieh, Y.-C.; Adnan, M.Z.; Yi, L.-H. The motivation for Muslim customers' participation in the sharing economy. *Resour. Conserv. Recycl.* **2020**, *155*, 104554. [CrossRef]
50. Ianole-Călin, R.; Francioni, B.; Masili, G.; Druică, E.; Goschin, Z. A cross-cultural analysis of how individualism and collectivism impact collaborative consumption. *Resour. Conserv. Recycl.* **2020**, *157*, 104762. [CrossRef]
51. Sharing and Caring. Member Countries Report on the Collaborative Economy, COST ACTION CA16121. 2018. Available online: http://sharingandcaring.eu/sites/default/files/files/CountriesReport2018.pdf (accessed on 25 April 2020).
52. Beaumont, K. *The Collaborative Economy: A Tool for Boosting Female Employment? CASE Working Papers*; Center for Social and Economic Research: Warsaw, Poland, 2016.
53. Sharing Cities Sweden. Sharing Cities Sweden. 2021. Available online: https://www.sharingcities.se/ (accessed on 14 February 2021).
54. Battino, S.; Lampreu, S. The Role of the Sharing Economy for a Sustainable and Innovative Development of Rural Areas: A Case Study in Sardinia (Italy). *Sustainability* **2019**, *11*, 3004. [CrossRef]
55. Nunu, M.; Nausedaite, R.; Eljas-Taal, K.; Svatikova, K.; Porsch, L. *Study to Monitor the Economic Development of the Collaborative Economy at Sector Level in the 28 EU Member States*; European Union: Brussels, Belgium, 2018.
56. Naumanen, M.; Rabuel, L.; Karanikolova, K.; Juskevicius, R.; Porsch, L. *Study to Monitor the Business and Regulatory Environment Affecting the Collaborative Economy in the EU*; European Union: Brussels, Belgium, 2018.
57. Escande-Varniol, M.-C. The Legal Framework for Digital Platform Work. In *Law and the "Sharing Economy"*; University of Ottawa Press: Ottawa, ON, Canada, 2018; pp. 321–356.
58. Mugion, R.G.; Toni, M.; di Pietro, L.; Pasca, M.G.; Renzi, M.F. Understanding the antecedents of car sharing usage: An empirical study in Italy. *Int. J. Qual. Serv. Sci.* **2019**, *11*, 523–541. [CrossRef]
59. Wilhelms, M.-P.; Henkel, S.; Falk, T. To earn is not enough: A means-end analysis to uncover peer-providers' participation motives in peer-to-peer carsharing. *Technol. Forecast. Soc. Chang.* **2017**, *125*, 38–47. [CrossRef]
60. Van de Glind, P. The Rise of the Peer-to-Business-to-Peer Marketplace. Collaborative Consumption. 2015. Available online: https://www.sharenl.nl/nieuws/the-rise-of-the-peer-to-business-to-peer-marketplace (accessed on 15 June 2020).