Power versus trust – what matters more in collaborative consumption?

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Abstract

Purpose – Collaborative consumption, such as car sharing, specifically implicates customer-to-customer interaction, which must be regulated by service providers (companies, peers and self-regulating communities), comprising different challenges for business organizations. While in conventional business relations, consumers are protected from undesirable customer behavior by laws, regulations (power) in the context of collaborative consumption are rare, so that trust becomes more relevant. It is the purpose of the study to investigate possible mechanisms to prevent undesirable customers in collaborative consumption.

Design/methodology/approach – In between subject designs, samples of 186 and 328 consumers filled in experimental online questionnaires with vignettes. Analyses were made of differences among car sharing companies, private persons and car sharing communities in terms of the power of providers, trust in providers and trust in other users of the shared goods, undesirable customer behavior and consumer–provider relations.

Findings – Companies, private persons and self-regulating communities differ in terms of perceived power and trust. Participants specifically perceive mainly coercive power with the car sharing company, but with the private person and the community, reason-based trust in other users is perceived as prevalent. Nevertheless, undesirable customer behavior varies only marginally over the models.

Originality/value – The present study is the first to investigate measures to prevent undesirable customer behavior over different collaborative consumption models. This enables appropriate identification of market segments and tailoring of services. The study identifies opportunities for companies in contrast to private persons and self-regulating communities and, in doing so, provides important stimulation for marketing strategy and theory development.

Keywords Trust, Power, Cooperation, Customer-to-customer interaction, Collaborative consumption, Undesirable customer

Paper type Research paper

Introduction

Triggered by the economic crisis and increased environmental awareness, consumers are increasingly engaging in collaborative consumption (Tussyadiah, 2015). In collaborative consumption, access to a good rather than ownership is of relevance (Belk, 2014; Botsman and Rogers, 2010; Leismann *et al.*, 2013). Consumers share goods via car sharing companies (Bardhi and Eckhardt, 2012), toy lending libraries (Ozanne and Ozanne, 2011), and many other services, such as tool lending workshops and community gardens, owning neither the cars nor the toys or tools or jointly grown vegetables, but instead, having access to them. Customer-to-customer interactions (Martin and Pranter, 1989) are key in such service environments. With collaborative consumption, consumers' (dis-)satisfaction is a reflection of not only the service provided but also the interaction with fellow customers. Dissatisfaction can arise easily when fellow customers treat shared goods inappropriately and return them in a state whereby they are unusable for other customers. Collaborate consumption providers must therefore limit the number of such "undesired customers" (Harris and Reynolds, 2004), whereby different forms of collaborative consumption have different strategies to achieve this.

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Due to the popularity of collaborative consumption, the supply of collaborative consumption services is not restricted to conventional business-to-consumer models. Increasingly, consumer networks are created to share resources, providing new challenges for the market. It is possible to distinguish between different providers, i.e. businesses vs consumers (Möhlmann, 2015), and different market orientations, i.e. providers operating for profit and non-profit (Schor and Fritzmaurice, 2015). There are very different types of collaborative consumption, for instance, business-to-consumer (Cohen and Kietzmann, 2014; Lamberton and Rose, 2012), peer-to-consumer (Cohen and Kietzmann, 2014) and self-regulating communities (Cohen and Kietzmann, 2014; Ozanne and Ballantine, 2010). With the first type, professional service providers profit from collaborative consumption and fully manage the organization and also assume legal liability. With the latter types, providers are single peers or communities of consumers that operate on a non-profit basis, and the peers and the communities themselves are the organizing providers, who are, however, for the most part, without legal regulation (Owyang *et al.*, 2013; Schor and Fritzmaurice, 2015). These forms differ, e.g. in ways of preventing undesirable customers from interacting with fellow users, i.e. the ability to punish misbehavior or to reward virtuous conduct. They additionally differ in terms of consumers' trust in the provider and in fellow users of the collaborative good. While trust between marketers and consumers is important in most business relations, for collaborative consumption, the trust of consumers in other users of the collaborative services or goods is also essential (Bhattacherjee, 2002; Melnik and Alm, 2002; Möhlmann, 2015; Sangmi *et al.*, 2011).

To investigate possible mechanisms to prevent undesirable customers, the paper draws from the slippery slope framework, a concept from governance research in which cooperative behavior is predicted by power (punishment, reward, legitimacy) and trust (Gangl *et al.*, 2015). This approach allows a differentiated understanding of the consumer–provider relationship, which is an important determinant of business success (Coulter and Coulter, 2002; Dwyer *et al.*, 1987; Mason and Simmons, 2012).

The current research investigates:

- whether the three forms of collaborative consumption differ in terms of the extent of undesirable customer behavior;
- how they vary in terms of the providers' power and the trust in these providers and in other users to prevent undesirable customer behavior;
- the prevailing interaction climates between providers and consumers; and
- the reasons for consumers' decisions to engage in a form of collaborative consumption.

This research contributes to the existing service literature by investigating a new and specific form of customer-to-customer interaction, i.e. collaborative consumption whereby customer satisfaction rests heavily on fellow customers. The treatment of undesirable customers differs depending on the specific form of collaborative consumption. In a business-to-consumer context, the number of undesirable customers can be kept to a minimum by wielding power. In a peer-to-consumer context and self-regulating communities, this is achieved by establishing trust. Furthermore, as trust is a very important aspect in service marketing (Kharouf *et al.*, 2014) and especially in the collaborative consumption context (Möhlmann, 2015), we distinguish between trust in providers of services and in other users of these services, an aspect that has been neglected in research thus far. We apply two vignette-based, experimental online questionnaires to investigate differences between the three collaborative consumption models. Recommendations for businesses, e.g. car sharing companies, and other collaborative consumption forms are discussed. Moreover, with this research we provide a solid basis for the organization and regulation of collaborative consumption (Koopman *et al.*, 2014; Rauch and Schleicher, 2015).

Conceptual foundations

Mobility services

The area of mobility is among the first where organizations and companies have offered services that enable the shift from ownership to temporary access (Prettenthaler and Steininger, 1999), so-called "car sharing services"[1]. Car sharing represents a very successful example of collaborative consumption, and over the past decades has grown considerably in North America and Europe. In line with Katzev (2003), we define car sharing as a service that enables a group of individuals to share a fleet of cars with other members. Providers of car sharing services differ widely in their objectives, business models, technology (offering online platforms or mobile-app based services) and target markets (Millard-Ball, 2005).

Consumers can choose between different forms of collaborative consumption, for instance, when sharing a car, they can use a company's service (business-to-consumer; Cohen and Kietzmann, 2014; Lamberton and Rose, 2012), share a car with a peer (peer-to-consumer; Cohen and Kietzmann, 2014), or share with neighbors (self-regulating communities; Cohen and Kietzmann, 2014; Ozanne and Ballantine, 2010). In the current studies, we focus on car sharing services that share the following features:

- a provider enables members access to a car for their own use;
- users book the cars in advance;
- users find the cars located close to their home, workplace or public transport stations;
- they access the cars on their own; and
- they rent them for a limited period.

This definition covers different types of providers, such as companies (e.g. Zipcar, Car2Go, or Drive Now), private persons and communities (Figure 1). In contrast, excluded from the definition is the shared use of vehicles in arrangements such as carpooling[2], ride-sharing services or taxi services like Uber or Lyft (Wallsten, 2015). The relationship with fellow customers in car sharing services differs distinctly from those in ride-sharing services: Users have to rely on one another to bring back the cars promptly, clean and undamaged. This raises the problem that customers may interact with a communal good in their own self-interest (Bardhi and Eckhardt, 2012).

Undesirable customers as component of consumer (dis-)satisfaction

With services such as collaborative consumption, customer-to-customer interaction, in particular, comes into focus. With

Figure 1 New mobility services by different forms and respective examples

	Car sharing		
	Business to consumer	*Peer to consumer*	*Self-regulating communities*
Examples	Zipcar Car 2 Go Drive Now	Getaround easyCar club	Housing communities sharing a fleet of cars
	Other mobility services		
	Carpooling	*Taxi services*	
Exam.	Carpoolworld Blablacar	Lyft Uber	

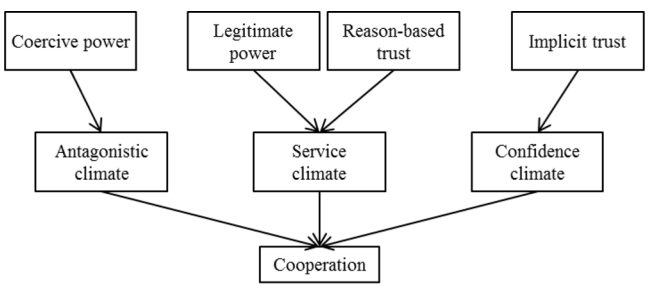
invariant service, such interaction can result in satisfaction or dissatisfaction depending on the quality of the interaction (Martin and Pranter, 1989). Dissatisfaction can stem from so-called undesirable customers, i.e. customers whose actions make the services for fellow customers unpleasant or impossible (Harris and Reynolds, 2004; Nicholls, 2010). Research on undesirable customers is rare (Nicholls, 2010); neither their impact on consumer (dis-)satisfaction nor how to prevent them has been sufficiently investigated. Although undesirable customers seldom disturb fellow customers' services, they are of great importance and significance because they are certainly shaping (dis-)satisfaction with the service (Nicholls, 2010).

To our knowledge, only Harris and Reynolds (2004) have conducted research on undesirable customers. They investigated the kinds of jaycustomers employees and customers perceive, i.e. customers who intentionally behave in a way so that their behavior is unpleasant for companies, employees and customers, whereby one kind are undesirable customers. The behavior of undesirable customers ranges from repulsive to criminal conduct. We also categorize as undesirable customers, persons who interrupt fellow customers' services (Harris and Reynolds, 2004; Nicholls, 2010) due to their inappropriate handling of a shared good rendering it unusable for a fellow customer, or usable only at a later time.

Slippery slope framework

We apply the slippery slope framework (Gangl *et al.*, 2015), a model that determines cooperative behavior based on power and trust, to demonstrate the prevention of undesirable customers (Figure 2). Although the slippery slope framework

Figure 2 Slippery slope framework



Source: Gangl *et al.* (2015)

was developed in the context of governance theory and originally was based on tax behavior (Hofmann *et al.*, 2014), it captures the relation of any organization and an individual. The slippery slope framework has already been applied to other contexts, e.g. to explain the relation of an insurance company and its customer (Hofmann *et al.*, 2017). The framework considers trust and power as drivers of cooperative behavior. Trust has been widely recognized as an important factor in marketing (Coulter and Coulter, 2002; Geyskens *et al.*, 1998) and especially in collaborative consumption (Hamari *et al.*, 2015; Hartl *et al.*, 2016; Möhlmann, 2015). Although recent studies on collaborative consumption underline the importance of power in terms of governance (Hartl *et al.*, 2016), there is a lack of empirical evidence on its impact on cooperation in the sharing economy. As such the slippery slope framework seems specifically appropriate to explain collaborative consumption behavior.

The slippery slope framework postulates that there are different qualities of provider power, such as coercive power and legitimate power. Coercive power comprises negative and positive re-enforcers, i.e. punishment for uncooperative behavior and reward for cooperative behavior. Legitimate power summarizes measures of the providers with which they influence behavior through legitimacy of their position, their expertise, the form of information dissemination and the potential to identify with them (Raven *et al.*, 1998).

These qualities of power go hand in hand with different qualities of trust in organizing providers and fellow users, i.e. automatic and well considered trust, such as implicit and reason-based trust. Implicit trust is characterized by an automatic reaction. This reaction is either triggered by a cue or has been learned from good experiences. Reason-based trust develops after some considerations. Individuals trust another party, if they find that this party pursues similar goals, acts benevolently and with motivation, has the competence to achieve the goals and is supported but not hindered by third, external parties (Castelfranchi and Falcone, 2010; Kharouf *et al.*, 2014).

Power and trust generate specific interaction climates between providers and consumers. We differentiate an antagonistic climate produced by coercive power, a service climate generated by legitimate power and reason-based trust, and a confidence climate created by implicit trust (Gangl *et al.*, 2015). The antagonistic climate is characterized by distrust between different actors. Authorities perceive individuals as defecting and prosecute them, and respectively, individuals hide and act uncooperatively when possible. A service climate comprises a formal and well-organized relationship in which authorities provide excellent service to make cooperative behavior much easier for individuals than engaging in defection. In the confidence climate, there is mutual trust between authorities and individuals. Both work for the benefit of the community and feel a moral obligation to cooperate. We assume that business-to-consumer models and consumption from self-regulating communities are related to different interaction climates.

Perception of power in collaborative consumption

In *business-to-consumer relations*, a company is the organizing provider. They are characterized by several measures to

determine consumers' behavior. On the one hand, they can sanction undesirable behavior and reward desirable behavior, e.g. with cancelation fees (Brook, 2004), using positive and negative reinforcement based on the theory of operant conditioning (Skinner, 1948). On the other hand, companies also offer support and services that make it easy for consumers to cooperate (Jenny *et al.*, 2007; Umit Kucuk and Krishnamurthy, 2007). Through this, companies are perceived as holding legitimacy and expertise, and as representing an organization that one can identify with, which influences consumers' behavior. We assume that in business-to-consumer relations, companies not only hold a measure of coercive power, such as punishing undesirable customer behavior, but also grant customers special rewards, e.g. by handing out discounts. Additionally, they certainly apply legitimate power, i.e. are in the position to wield power, have the expertise in proficient handling, hand out information regarding conduct and are possibly an institution to identify with based on the nature of goods and services as well as marketing.

Peer-to-consumer exchanges exist in many different forms, but based on their common features, we assume that they comprise mostly legitimate power, as single providers are able to act more flexibly than formally and informally regulated exchanges. They can offer more relevant expertise and information and can represent a person by means of values with which one can identify (Martin, 2016). They can still wield coercive power because their legal ownership entitles them to do so.

Self-regulating communities are characterized by very little or no power (Owyang *et al.*, 2013). Without any appointed provider, such as a company, there is no provider to actually wield power, either coercive or legitimate. Because it lacks legal regulation, the community as an indistinct provider does not have measures to establish consumer behavior (Owyang *et al.*, 2013). There are neither binding forms of punishment for misbehavior nor binding rewards, and therefore no coercive power is wielded. Legitimate power, on the other hand, is independent of legal rules; it could therefore be present in self-regulating communities. Yet, as no appointed providers exist, consumers cannot attribute legitimate power to a specific person. Based on these assumptions, the following hypotheses were developed:

H1a. In business-to-consumer relations, coercive power is more prevalent than in peer-to-consumer exchanges and in self-regulating communities.

H1b. In business-to-consumer relations and in peer-to-consumer exchanges, legitimate power is more prevalent than in self-regulating communities.

Perception of trust in the provider in collaborative consumption

In *business-to-consumer relations*, trust in providers is an important characteristic of good business relations and a predictor of satisfaction with the relationship (Möhlmann, 2015; Papadopoulou *et al.*, 2001; Pennington *et al.*,2003). We assume that in such business relations, consumers have reason-based trust in the company. The providers' legitimate power, i.e. expertise, information, etc., offers some basis for trust (Umit Kucuk and Krishnamurthy, 2007). Trust does not originate solely from an elaborate decision process and can be triggered by simple cues, such as a company's logo (Castelfranchi and Falcone, 2010); such automatic or implicit trust can develop over time in long-term business-to-consumer relations but is not common in short-term relations (Schor and Fritzmaurice, 2015).

As *peer-to-consumer exchanges* are associated with legitimate power, consumers have reason-based trust in the provider (Gangl *et al.*, 2015). In such exchanges, in some cases, consumers do not personally know the provider who owns the collaborative good (e.g. when the good is provided via an internet platform), which specifically places trust at the center of attention (Martin, 2016; Yu *et al.*, 2004; Xiong and Liu, 2004; Wang and Vassileva, 2003). By pondering the advantages and disadvantages of this relationship, consumers find many reasons on which to base their trust. Provider ratings on the internet usually support the emergence of trust and are helpful in bringing together compatible providers and consumers (Martin, 2016). In cases where a relationship has lasted for some time, the expectation is that implicit trust will grow (Gangl *et al.*, 2015). Thus, in a peer-to-consumer model, reason-based trust and some implicit trust in the authorities can be expected.

Based on the *community's self-regulating* nature, relations among people with similar interests and values should establish reason-based trust in the communities, i.e. indistinct providers. The non-existence of power in self-regulating communities, in particular, provides an excellent environment for cultivating implicit trust in the community (Schor and Fritzmaurice, 2015). It can be assumed that communities that do not wield any type of power and, additionally, comprise consumers holding very low implicit trust in the provider, will quickly collapse (Owyang *et al.*, 2013) because no force is present to hold the community together. Based on this, the following two hypotheses were developed:

H2a. In business-to-consumer relations and in peer-to-consumer exchanges, reason-based trust in the provider is more pronounced than in self-regulating communities.

H2b. In self-regulating communities, implicit trust in the provider is more pronounced than in business-to-consumer relations and in peer-to-consumer exchanges.

Perception of trust in other users in collaborative consumption

In *business-to-consumer relations*, interactions between consumers are limited, and the company acts as an intermediary, regulating users' reliabilities and rights to goods. With this in mind, consumers have profound reason to trust in other users, and therefore, reason-based trust in other users should prevail. Nevertheless, over time and after several positive experiences, reason-based-trust can change into implicit trust (Castelfranchi and Falcone, 2010); thus, few but some implicit trust in other users of the goods might exist in business-to-consumer relations.

With *peer-to-consumer exchanges*, several consumers use a specific collaborative good from one owner, which implies similarities in values and experiences between these consumers. Such similarities function as cues, and these cues can be expected to trigger implicit trust in other users (Bente *et al.*, 2008). In peer-to-consumer exchanges, trust in other users of collaborative goods depends to a lesser extent on wielded power. The peer is regulating the lending of the good legitimately and therefore consumers should trust that fellow users abide by the regulations. Thus, in peer-to-consumer exchanges, implicit trust in other users of the good prevails, but some reason-based trust might also exist.

Based on the "sharing" nature of collaborative consumption in *self-regulating communities*, we assume that consumers trust not only in providers organizing collaborative consumption also but more importantly, in other consumers using the same services and goods (Bhattacherjee, 2002; Melnik and Alm, 2002; Möhlmann, 2015; Sangmi *et al.*, 2011). Being part of such a sharing group, sharing norms and values, certainly provides reasons to trust other users (Schor and Fritzmaurice, 2015). Thus, in self-regulating communities, reason-based trust in other users prevails. Additionally, the regularity of the interaction with other users suggests that interpersonal relationships of community members are long lasting, which allows progress from reason-based trust to implicit trust (Gangl *et al.*, 2015; Schor and Fritzmaurice, 2015). Therefore, we assume that consumers in self-regulating communities trust other users; they hold reason-based trust and implicit trust, leading to two hypotheses:

H3a. In self-regulating communities and in peer-to-consumer exchanges, reason-based trust in the other users is more pronounced than in business-to-consumer relations.

H3b. In self-regulating communities and in peer-to-consumer exchanges, implicit trust in other users is more pronounced than in business-to-consumer relations.

Perception of the consumer-provider relationship in collaborative consumption

Regarding consumer-provider relations we focus on differences between the most opposing forms of collaborative consumption models, business-to-consumer models and self-regulating communities (regulation vs no regulation).

In *business-to-consumer relations*, companies are expected to offer good services to the consumers, and also have the power to reward or punish consumers for their behavior. In this vein, a professional relationship between the company and the consumers is expected (Fu *et al.*, 2013). Therefore, expected to prevail is a service climate, which comprises a formal and well-organized relationship, in which providers offer excellent service to make cooperative behavior easier for individuals (Gangl *et al.*, 2015). Nevertheless, in some cases, companies might be perceived as malevolent and persecute consumers with sanctions in case of defection, and respectively, consumers act uncooperatively when it is possible (Gangl *et al.*, 2015). In such rare cases, an antagonistic climate between the provider and the consumers might prevail. Thus, in business-to-consumer relations, it can be expected that consumers mainly perceive a service climate, but some might also perceive an antagonistic climate.

Self-regulating communities, on the other hand, do not have measures at hand to sanction consumers' behavior; existing instead are mutual (implicit) trust among the members and a confidence climate. In such a climate, providers and consumers work for the benefit of the community and feel a moral obligation to cooperate (research on taxpaying Alm and Torgler, 2011; Gangl *et al.*, 2015). Therefore, interactions in communities take place mainly within a confidence climate; neither an antagonistic climate nor a service climate is relevant. The following three hypotheses were formulated:

H4a. In business-to-consumer relations, the perception of an antagonistic climate is more distinct than in self-regulating communities.

H4b. In business-to-consumer relations, the perception of a service climate is more distinct than in self-regulating communities.

H4c. In self-regulating communities, the perception of a confidence climate is more distinct than in business-to-consumer relations.

Undesirable customer behavior as uncooperative behavior

All collaborative consumption models face the problem of undesirable customer behavior. As earlier studies (Jiang and Tian, 2015) have shown, consumers can exploit other users of collaborative goods by returning them late or by not taking care of the goods. We assume that the level of undesirable customer behavior in all collaborative consumption models is similar and that only the power and trust in the collaborative consumption models differ. Consequently, the following hypothesis reads:

H5. The level of undesirable customer behavior is similar in business-to-consumer relations, in peer-to-consumer exchanges and in self-regulating communities.

In the following, we present two studies; the first examines the differences in handling undesirable customer behavior between the two most divergent collaborative consumption models, business-to-consumer model versus self-regulating community; the second contrasts all three models, investigating additionally a model that is organized between the other two (legally binding rules). Study 2 not only confirms the findings of Study 1, but additionally presents a more realistic setting because participants in the study can choose from the three options for car sharing. Furthermore, Study 2 examines how the three different providers and their services are perceived. In both studies, we apply an experimental method gathering quantitative and also qualitative data. The experimental approach distinguishes the different kinds of collaborative consumption and allows systematic insight in power perceptions, trust and relations, whereas the qualitative data enrich these results with justifications for the experimental findings and reasons for the selection of specific forms of collaborative consumption. Although other methods, such as

interviews or focus groups, might produce similar data, solely experiments help in distinguishing causal effects. Additionally, we follow the suggestion of Ranjan *et al.* (2015) to use experimental approaches for investigating the quality of service interactions.

Study 1

Method

Participants

An online questionnaire was completed by a convenience sample of 186 consumers (60.2 per cent women, M_{age} = 27.17 years, SD_{age} = 10.27) recruited via personal contacts of university members. The majority of participants (89.8 per cent) earned less than 2,000 Euros per month.

Experimental design and procedure

Investigating the differences in power and trust over two collaborative consumption models, participants were randomly assigned to one of two conditions, in which either (a) a car sharing company or (b) a housing community sharing a car was described in an experimental vignette (Appendix). The vignettes were constructed based on real companies and communities. For the experimental design, the phrasing of the different texts was very similar so that only keywords describing service design (Goldstein *et al.*, 2002; for differences in service designs, see Tables AI and AII in Appendix) were different. We therefore assured that differences in the dependent variables could be attributed to the different forms of car sharing and not the phrasing of the vignettes.

Depending on the condition, participants were meant to imagine that they are using a car from either the car sharing company or the housing community. After reading the vignettes, all participants received the following information:

"You took the car for a ride on a weekend. You enjoyed the trip so much, that you wanted to stay a day longer, but you borrowed the car for just one day".

Participants had to indicate intentional undesirable customer behavior, i.e. "How likely is it that you would keep the car for longer than agreed upon?" (seven-point Likert scale). Subsequently, a series of adapted items (based on Hofmann *et al.*, 2014) followed. Participants had to fill in a questionnaire assessing their perception of coercive power (punishment: 3 items; reward: 3 items), legitimate power (8 items), implicit trust in the provider (3 items), implicit trust in other users (3 items), reason-based trust in the provider (7 items) and reason-based trust in other users (7 items). In addition, participants answered scales on environmental consciousness (10 items) and green consumerism (12 items; Alsmadi, 2007), risk-seeking (6 items; Colquitt *et al.*, 2006) and trustfulness (4 items, adapted from Cattell, 2001) collecting data on control variables. Responses were indicated on a seven-point Likert scale ranging from 1 ("I totally disagree") to 7 ("I totally agree"). Following poor internal consistency (Cronbach α = 0.51) of coercive power we built two independent kinds of power, i.e. coercive power comprising punishments and reward power containing rewards. Cronbach's α for the scales can be found in Table I. Socio-demographics were likewise assessed.

Table I Means over company and community conditions and respective Cronbach's α

		Company	Community
N		98	88
Scales	α	M (SD)	M (SD)
Coercive power	0.81	4.77 (1.39)	2.98 (1.47)
Reward power	0.67	3.57 (1.35)	3.82 (1.29)
Legitimate power	0.74	4.99 (0.88)	4.79 (1.01)
Reason-based trust – provider	0.79	4.16 (1.12)	4.21 (1.34)
Implicit trust – provider	0.85	3.78 (1.67)	3.95 (1.55)
Reason-based trust – users	0.82	3.47 (1.35)	3.92 (1.26)
Implicit trust – users	0.86	3.38 (1.71)	3.83 (1.52)
Antagonistic climate	0.79	2.36 (1.39)	2.06 (1.08)
Service climate	0.66	5.37 (1.02)	3.94 (1.28)
Confidence climate	0.85	4.83 (1.45)	5.52 (1.39)
Undesirable customer behavior		1.55 (1.52)	1.91 (1.67)
Control variables			
Environmental consciousness	0.86	6.10 (0.71)	5.86 (1.02)
Green consumerism	0.93	4.44 (1.30)	4.20 (1.32)
Risk seeking	0.85	3.18 (1.40)	3.27 (1.24)
Trustfulness	0.87	4.25 (1.31)	4.44 (1.39)

Note: Means are not adjusted by control variables

Results

Power and trust

Testing whether the perception of power and trust differs over collaborative consumption models, a MANOVA, including control variables, revealed that respondents differ in their answers depending on the two collaborative consumption models ($F(7, 174) = 13.35$, $p < 0.001$, $\eta^2_p = 0.35$)[3]. Specifically, in line with *H1a*, coercive power is perceived as held by the company ($M = 4.77$, $SD = 1.39$) rather than the community ($M = 2.98$, $SD = 1.47$; $F(1, 186) = 71.53$, $p < 0.001$, $\eta^2_p = 0.28$). Contrary to *H1a* and *H1b*, the perception of legitimate power ($p = 0.23$) and reward power ($p = 0.22$) is equally high in both models (Table I).

Concerning experienced trust, the analysis reveals that reason-based trust in other users is significantly higher when collaborative consumption is organized by a community ($M = 3.92$, $SD = 1.26$) rather than a company ($M = 3.47$, $SD = 1.35$; $F(1, 186) = 6.19$, $p = 0.01$, $\eta^2_p = 0.03$) supporting *H3a*. Implicit trust in other users ($p = 0.09$) and implicit trust ($p = 0.65$), as well as reason-based trust ($p = 0.66$), in the provider is equally high in both models contradicting *H3a*, *H2a* and *H2b* (Table I).

Consumer–provider relationship

Concerning the research question whether the perception of climates differs according to the models, a MANOVA including control variables reveals that respondents differ in their answers depending on the two collaborative consumption models ($F(3, 186) = 26.48$, $p < 0.001$, $\eta^2_p = 0.31$).

Regarding the perception of a service climate, the analysis showed that, as expected (*H4b*), participants reported higher levels of a service climate ($F(1, 186) = 63.97$, $p < 0.001$, $\eta^2_p = 0.26$), when consumption is organized by a company (M =

5.37, *SD* = 1.02) rather than a community (*M* = 3.94, *SD* = 1.28). Further, in accordance with *H4c*, the experience of a confidence climate is higher in the community (*M* = 5.52, *SD* = 1.39) than with the company (*M* = 4.83, *SD* = 1.45; *F* (1, 186) = 13.71, *p* = 0.001, η^2_p = 0.07). Additionally, in the company, the antagonistic climate is higher (*M* = 2.36, *SD* = 1.39) than in the community (*M* = 2.06, *SD* = 1.08, *F* (1, 186) = 3.95, *p* = 0.05, η^2_p = 0.02, Table I) supporting *H4a*.

Undesirable customer behavior

To test whether undesirable customer behavior differs between the models, an ANOVA with the dependent variable undesirable customer behavior and including control variables was conducted. As expected, *H5* is supported and undesirable customer behavior does not differ depending on the collaborative consumption model (F(1, 186) = 1.45, *p* = 0.23, η^2_p = 0.01, Table I).

Study 2

Method

Participants

A convenience sample of 328 consumers (53.4 per cent women, M_{age} = 27.69 years, SD_{age} = 10.07) completed an online questionnaire. Most participants (82.9 per cent) earned less than 2,000 euros per month.

Design and procedure

Participants had to imagine that they had moved house and would need a car now and then. A vignette describes three opportunities to use a car: They can use a car either (a) from a car sharing company or (b) from a private person or (c) from a housing community, which makes Study 2 a quasi-experiment. The vignettes for the car sharing company and the self-regulating community were similar to the ones in Study 1, again basing on existing examples but with similar phrasing (Appendix). The three vignettes were presented in a balanced sequence among all participants. After having decided from which provider to use the car (company, private person, self-regulating community), participants were asked to openly state what aspects led to their decision.

Similar to Study 1, participants should imagine that they are using the mentioned car and that they would like to use it a day longer than requested. Again, participants had to indicate undesirable customer behavior ("How likely would you keep the car longer than agreed upon?"; seven-point Likert scale). Again, participants had to fill in a questionnaire assessing the same constructs as in Study 1. Cronbach's α for the scales can be found in Table II. Socio-demographics were also assessed.

Results

Power and trust

Testing whether the perception of power and trust differs over collaborative consumption models, a MANOVA including control variables revealed that respondents differ in their answers depending on the three collaborative consumption models ($F(14, 632) = 11.16$, $p < 0.001$, $\eta^2_p = 0.20$)[4]. As expected, the perception of coercive power ($F(2, 321) = 61.86$, $p < 0.001$, $\eta^2_p = 0.28$) and reward power ($F(2, 321) = 5.31$, $p = 0.01$, $\eta^2_p = 0.03$) differs between the business models: Coercive power is perceived with the company rather than with the community or in a peer-to-consumer business model supporting *H1a* (Table II). Likewise, the perception of reward power is lower when a company rather than a peer or community provides the service contradicting *H1a*. Contrary to expectations (*H1b*), the perception of legitimate power (p = 0.11) is equally high in all models.

Concerning experienced trust, the analysis reveals that reason-based trust in other users differs in the three models, $F(2, 321) = 16.86$, $p < 0.001$, $\eta^2_p = 0.10$, supporting *H3a*. When a company provides the service, trust in the other users is significantly lower than with a peer or a community (Table II).

Reason-based trust (p = 0.06) and implicit trust in the provider (p = 0.28), as well as implicit trust in other users (p =

Table II Means over company, peer-to-consumer and community conditions and respective Cronbach's α

		Company	Peer-to-consumer	Community
N		121	102	105
Scales	α	M (SD)	M (SD)	M (SD)
Coercive power	0.86	4.57 (1.36)	2.82 (1.30)	2.78 (1.45)
Reward power	0.68	3.78 (1.42)	4.28 (1.35)	4.32 (1.28)
Legitimate power	0.77	5.13 (0.81)	5.34 (0.99)	5.13 (1.00)
Reason-based trust – provider	0.73	4.33 (1.05)	4.65 (1.11)	4.62 (1.07)
Implicit trust – provider	0.82	4.32 (1.61)	3.89 (1.61)	4.05 (1.54)
Reason-based trust – users	0.77	3.36 (1.15)	3.93 (1.18)	4.25 (1.20)
Implicit trust – users	0.90	3.92 (1.79)	3.40 (1.84)	3.87 (1.62)
Undesirable customer behavior		2.83 (1.86)	3.46 (1.96)	3.10 (1.71)
Control variables				
Environmental consciousness	0.91	5.71 (1.10)	6.01 (0.94)	5.88 (0.95)
Green consumerism	0.93	4.08 (1.30)	4.42 (1.30)	4.25 (1.23)
Risk seeking	0.84	3.71 (1.30)	3.82 (1.32)	3.60 (1.36)
Trustfulness	0.89	4.44 (1.22)	4.22 (1.33)	4.47 (1.51)

Notes: Means are not adjusted by control variables; the fact that participants are nearly equally distributed over conditions, indicates that the conditions of the three collaborative consumption models were described with similar attraction leading to equally distributed selections

0.17), are equally high in all models contradicting *H2a*, *H2b* and *H3b* (Table II).

Undesirable customer behavior

To test whether undesirable customer behavior differs between the models, an ANOVA including control variables was conducted. The analysis revealed a significant difference between the collaborative consumption models concerning undesirable customer behavior ($F(2, 321) = 3.22$, $p = 0.04$, $\eta^2_p = 0.02$). Participants, who chose the service provided by a company, were less likely to keep the car longer than participants choosing the service from a peer.

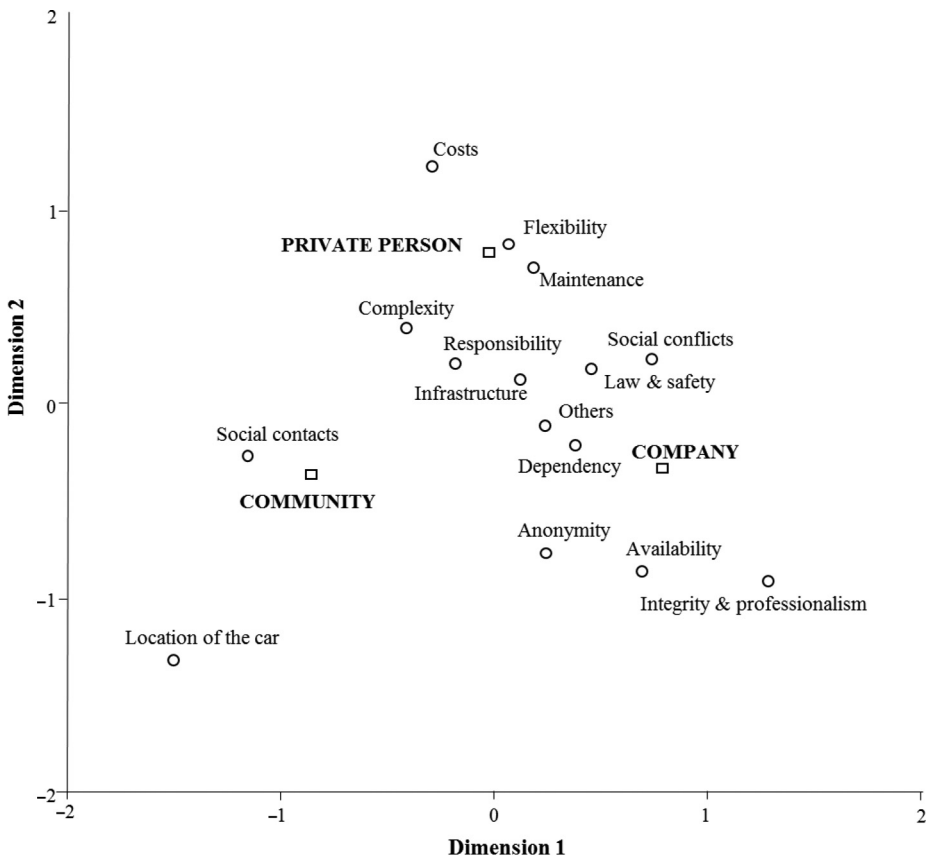
Reasons for choosing a specific car sharing model

All 328 participants gave reasons for their decision in choosing a car sharing service provided by either a company, a private person or a community; from 121 participants, who decided for the company, 182 different statements were gathered, from 102 participants, who selected the private person, 152 different statements; and from 105 participants, who chose the community, 165 different statements were assessed. These 499 statements were categorized in 15 different categories (Appendix) by two independent raters resulting in a satisfying Kappa = 0.63 [substantial agreement (Landis and Koch, 1977)]. Results[5] show that "law & safety" (15.9 per cent) and "integrity & professionalism" (12.1 per cent) were the most frequently reported reasons for choosing a company. When choosing a private person, participants did so for reasons of "law & safety" (13.8 per cent), "social contacts" (13.2 per cent) and "complexity" (13.2 per cent). The most important reason for engaging in a self-regulating community was "social contacts" (33.3 per cent), followed by "complexity" (12.1 per cent).

To answer research *question 4*, whether the reasons for choosing a specific collaborative consumption model differ, a correspondence analysis was applied. The correspondence analysis is a method that yields a graphical representation of the associations between columns and rows of a contingency table and thereby depicts the similarity of assignment profiles. Concepts that are related to one another are closely related in the figure of the correspondence analysis. The frequencies of all categories, separated by the three providers of the service (company; private person; community) were analyzed by means of a correspondence analysis (Blasius, 2001), resulting in a two-dimensional configuration explaining 29.2 per cent of the variance (Figure 3).

The first dimension differentiates between safety/risk and distance/closeness. Configured along the positive hemisphere of the first dimension are categories such as "integrity & professionalism", as well as "social conflict",

Figure 3 Result of correspondence analysis of frequencies of associative categories by car sharing service provider of the car sharing service



Notes: Circles indicate categories; squares indicate providers

indicating that ideally, car sharing bears low risks if the provider of the car is reliable, but can on the other hand lead to social conflicts. In contrast, the categories "location of the car" and "social contacts" were found on the negative hemisphere of the first dimension, expressing feelings of closeness. On the second dimension, the different poles are described by categories such as "location of the car", "availability" and "costs", indicating that the second dimension differentiates between time and spatial resources and financial resources.

Communities that provide car sharing services are located in the negative hemisphere of the first dimension and characterized by the category "social contacts". On the other hand, a car sharing company, on the positive hemisphere of the first dimension, is located near the categories "dependency", "anonymity", "availability", "social conflicts" and "law and safety". Participants who chose a car sharing service provided by a private person, did so for reasons of "flexibility" and "maintenance".

Discussion

Existing research on why consumers engage in collaborative consumption activities is rare, although this is a popular consumer behavior (Möhlmann, 2015; Tussyadiah, 2015). We aim to broaden the perspective by examining this customer-to-customer interaction and investigating measures, i.e. power and trust, to reduce undesirable customer behavior in different collaborative consumption models (business-to-consumer, peer-to-consumer, self-regulating community).

Both experimental studies show that as expected, collaborative consumption models differ according to measures to reduce undesirable customer behavior (power and trust), yet, as shown in the direct comparison in Study 2, some characteristics are more prominently perceived. Compared to self-regulating communities, companies organizing collaborative consumption are perceived as punishing freeriders, which is in line with earlier research showing that surveillance and control mechanisms are welcomed in business-to-consumer models in collaborative consumption (research on car sharing companies, Bardhi and Eckhardt, 2012). Companies, especially service organizations, may use penalties to prevent undesirable behaviors, for instance, by applying fees for late payments (Kim, 2007). Regarding reward power, differences occur only in Study 2. Consumers perceive more rewards in peer-to-consumer models and self-regulating communities than in companies. Nevertheless, the models are similar regarding the wielding of legitimate power. An explanation for the ascertained lack of difference in legitimate power could be that all models can wield legitimate power, e.g. by providing information via user-friendly websites (Umit Kucuk and Krishnamurthy, 2007) or by justly applying transparent rules (Jenny *et al.*, 2007). Such information services were not explicitly referred to in the scenarios, but participants might have anticipated them. When communities are organizing collaborative consumption, consumers must sometimes interact with unknown and unfamiliar customers, without the benefit of companies that regulate the interactions (Bin *et al.*, 2004), which makes trust in the other users particularly important (Germann Molz, 2013). In this vein, the current research shows that reason-based trust in other users gradually becomes higher in self-regulated communities than when a peer or company provides a car-sharing service. In a community where no regulating provider exists, people may exploit the good or service if they feel others are overusing the good (e.g. in household water consumption, Jorgensen *et al.*, 2009). Trust in others is therefore an important determinant of cooperation not only in communities but also in peer-to-consumer models where the power of the single peer is not as potent as in business-to-consumer models.

The consumer–provider relationship is perceived as very different in collaborative consumption models: Business-to-consumer relations are strongly characterized by a service climate between the provider and its users. Generating a service climate is important, and not only for companies offering collaborative consumption services. This is in line with research from conventional business-to-consumer relations, high-quality service pays off for all kinds of organizations, as consumers are more likely to remain customers of the company (Dietz *et al.*, 2004; Schneider *et al.*, 1998; Sureshchandar *et al.*, 2002). In communities, collaborative consumption is characterized by a confidence climate among its members. When goods are shared, consumers have to rely on the other users of the goods, which generates a climate of trust, and therefore a confidence climate. The results concerning the underlying customer–provider relationship suggest that the strongest distinction between the two collaborative consumption models is the prevalence of a service climate in the business-to-consumer relation. Although the perception of an antagonistic climate differs between the models, the effect size was rather small compared to the service climate, and the responses may show bottom effects; therefore, the effect is negligible. The establishment of a positive interaction climate is thus necessary to create a loyal customer base (cf. Kandampully, 1998).

Qualitative data go hand in hand with the quantitative findings. In the correspondence analysis, the first dimension describes safety/risk and distance/closeness going from the company (safety/risk) through peer-to-consumer to the community (distance/closeness). This indicates that coercive power is associated specifically with companies (law and safety), and that with peer-to-consumer (flexibility, service) and community (social contacts) the driving force is trust. Nevertheless, the second dimension only differentiates between features of the three providers, i.e. time and spatial resources/financial resources independently from the perception of power and trust.

In the current research, we find that collaborative consumption models differ in perceptions of power and trust. Nevertheless, consumers show similar undesirable behavior when consumption is regulated by a community as well as by a company. The behavior is slightly more undesirable with private persons than with companies, which might be based on the fact that with an individual, consumers believe it is easier to discuss the late return of a car.

Implications, limitations and future research

Besides its merits, the study certainly holds some limitations; first, based on the slippery slope framework, we would expect correlative relationships between behavior and power and trust,

but due to the experimental approach, we do not test for this relation and leave this to future research. Second, the experimental design with its vignettes creates – as most experiments do – a specific environment, but on the other hand, they assure very high internal validity. In the current study, we use real life examples when operationalizing. We have tried to keep the vignettes as constant as possible, changing only keywords guaranteeing high internal validity. The keywords were taken from real life examples, which might slightly reduce internal validity as they might lean towards certain forms of power/trust. Additionally, we have collected qualitative data backing up the results of the experiments. These data produce similar findings but lack the causal effects that are measured with the experiments. Third, the samples are convenient samples comprised of younger people with rather low incomes, but not in any way representative of the population. Although this could be seen as a disadvantage, this is actually one of the study's strengths as young people with higher education are the consumer group specifically interested in car-sharing (Hamari *et al.*, 2015; Piscicelli *et al.*, 2015).

There seem to be two mechanisms to reduce undesirable customer behavior. Coercive power decreases undesirable costumer behavior in business-to-consumer models, whereas communities and peer-to-consumer models ensure cooperative behavior through mutual trust. Based on the results, companies offering collaborative use of goods are advised to have an excellently functioning system of regulations to protect consumers from undesirable customer behavior. In the car sharing business this would mean guarding consumers from users who, e.g. bring back the borrowed car late and/or messy, or who reserve the car but then do not actually pick it up. Self-regulating communities may attract consumers who would like to use this form, for instance, via events where users of goods can meet. On the one hand, consumers get to know the companies themselves and implicit trust in the companies emerges via regular events. The companies benefit from this implicit trust because a confidence climate between companies and consumers develops, and consumers feel an obligation to cooperate, which diminishes costly monitoring and sanction systems for defection. On the other hand, events give consumers the opportunity to get to know other users and also establish implicit trust in them. This again benefits the companies; they can reduce costly monitoring and sanction systems, because consumers are aware that other users also feel an obligation to cooperate.

In communities and peer-to-consumer models, it is essential to establish mutual trust among the users of the collaborative goods. Communities as well as peer-to-consumer models therefore need to consider trust-building measures, for instance, through increasing community identification (Van Vugt, 2001) or communication (Dyer and Chu, 2000). Thus, regular meetings, face-to-face or virtually, are essential. In cases where such meetings are impossible, other indicators of users' trustworthiness are vital, e.g. reputation ratings and verbal evaluations by other users, who are similar to the respective consumer who needs to know about trustworthiness. If communities want to attract those consumers who consider companies offering collaborative goods to be more appealing, then the communities need to introduce regulations that protect these consumers from undesirable customer behavior. Such sanctions can include, e.g. extra work for the community, reduced access to the collaborative goods or exclusion from the community.

The results of the current research hold valuable implications not only for research but also for collaborative consumption models. Findings indicate that the models differ according to their measures to prevent undesirable customer behavior (coercive power and consumers' reason-based trust in other users), and especially the perceived interaction climate. Thus, different providers of collaborative consumption have two different ways to prevent undesirable customer behavior. Regulation is associated more with companies and trust in fellow users is connected more to private persons and communities.

Notes

1 In most countries, "car sharing" means the collective and alternating utilization of cars. In the UK, the term "car clubs" was used in the past. We stick with the common terminology and use the expression "car sharing" throughout the paper.

2 In the UK, "carpooling" is sometimes referred to as car sharing. Nevertheless, in the current paper "car sharing" is not used synonymously with "carpooling."

3 For a robustness check, we undertook all analyses a second time without the control variables environmental consciousness, green consumerism, risk seeking and trustfulness. These additional analyses confirm the earlier results and verify their robustness.

4 Again, for a robustness check, we have undertaken all analyses a second time without control variables environmental consciousness, green consumerism, risk seeking and trustfulness. These additional analyses confirm the earlier results and verify their robustness.

5 Not taking into account the category others.

References

Alm, J. and Torgler, B. (2011), "Do ethics matter? tax compliance and morality", *Journal of Business Ethics*, Vol. 101 No. 4, pp. 635-651.

Alsmadi, S. (2007), "Green marketing and the concern over the environment: measuring environmental consciousness of Jordanian consumers", *Journal of Promotion Management*, Vol. 13 Nos 3/4, pp. 339-361.

Bardhi, F. and Eckhardt, G.M. (2012), "Access-based consumption: the case of car sharing", *Journal of Consumer Research*, Vol. 39 No. 4, pp. 881-898.

Belk, R. (2014), "You are what you can access: sharing and collaborative consumption online", *Journal of Business Research*, Vol. 67 No. 8, pp. 1595-1600.

Bente, G., Rüggenberg, S., Krämer, N.C. and Eschenburg, F. (2008), "Avatar-mediated networking: increasing social presence and interpersonal trust in net-based collaborations", *Human Communication Research*, Vol. 34 No. 2, pp. 287-318.

Bhattacherjee, A. (2002), "Individual trust in online firms: scale development and initial test", *Journal of Management Information Systems*, Vol. 19 No. 1, pp. 211-241.

Bin, Y., Singh, M.P. and Sycara, K. (2004), "Developing trust in large-scale peer-to-peer systems", IEEE First Symposium on Multi-Agent Security and Survivability.

Blasius, J. (2001), *Korrespondenzanalyse*, Oldenbourg Verlag, Munich.

Botsman, R. and Rogers, R. (2010), "Beyond Zipcar: collaborative consumption", *Harvard Business Review*, Vol. 88 No. 10, p. 30.

Brook, D. (2004), "Carsharing: start up issues and new operational models", paper presented at the Transportation Research Board 83rd Annual Meeting, Washington, DC, available at: http://carsharing.net/library/StartUp_Issues_TRB04_DBrook.pdf

Castelfranchi, C. and Falcone, R. (2010), *Trust Theory: A Socio-cognitive and Computational Model*, Wiley, West Sussex.

Cattell, H.E.P. (2001), "The sixteen Personality Factor (16PF) questionnaire", *Understanding Psychological Assessment*, Springer, Boston, MA, pp. 187-215.

Cohen, B. and Kietzmann, J. (2014), "Ride on! Mobility business models for the sharing economy", *Organization & Environment*, Vol. 27 No. 3, pp. 279-296.

Colquitt, J.A., Scott, B.A., Judge, T.A. and Shaw, J.C. (2006), "Justice and personality: Using integrative theories to derive moderators of justice effects", *Organizational Behavior and Human Decision Processes*, Vol. 100 No. 1, pp. 110-127.

Coulter, K.S. and Coulter, R.A. (2002), "Determinants of trust in a service provider: The moderating role of length of relationship", *Journal of Services Marketing*, Vol. 16 No. 1, pp. 35-50.

Dietz, J., Pugh, S.D. and Wiley, J.W. (2004), "Service climate effects on customer attitudes: an examination of boundary conditions", *Academy of Management Journal*, Vol. 47 No. 1, pp. 81-92.

Dwyer, F.R., Schurr, P.H. and Oh, S. (1987), "Developing buyer-seller relationships", *Journal of Marketing*, Vol. 51 No. 2, pp. 11-27.

Dyer, J.H. and Chu, W. (2000), "The determinants of trust in supplier-automaker relationships in the US, Japan, and Korea", *Journal of International Business Studies*, Vol. 31 No. 2, pp. 259-285. No

Fu, S., Lin, J. and Sun, L. (2013), "An empirical examination of the stability of the alliance of 'a company plus farmers' from the perspective of farmers", *Chinese Management Studies*, Vol. 7 No. 3, pp. 382-402.

Gangl, K., Hofmann, E. and Kirchler, E. (2015), "Tax authorities' interaction with taxpayers: A conception of compliance in social dilemmas by power and trust", *New Ideas in Psychology*, Vol. 37, pp. 13-23.

Germann Molz, J. (2013), "Social networking technologies and the moral economy of alternative tourism: the case of couchsurfing.org", *Annals of Tourism Research*, Vol. 43, pp. 210-230.

Geyskens, I., Steenkamp, J.B.E. and Kumar, N. (1998), "Generalizations about trust in marketing channel relationships using meta-analysis", *International Journal of Research in Marketing*, Vol. 15 No. 3, pp. 223-248.

Goldstein, S.M., Johnston, R., Duffy, J. and Rao, J. (2002), "The service concept: the missing link in service design research?", *Journal of Operations Management*, Vol. 20 No. 2, pp. 121-134.

Harris, L.C. and Reynolds, K.L. (2004), "Jaycustomer behavior: an exploration of types and motives in the hospitality industry", *Journal of Services Marketing*, Vol. 18 No. 5, pp. 339-357.

Hamari, J., Sjöklint, M. and Ukkonen, A. (2015), "The sharing economy: why people participate in collaborative consumption", *Journal of the Association for Information Science and Technology*.

Hartl, B., Hofmann, E. and Kirchler, E. (2016), "Do we need rules for what's mine is yours? Governance in collaborative consumption", *Journal of Business Research*, Vol. 69 No. 8, pp. 2756-2763.

Hofmann, E., Gangl, K., Kirchler, E. and Stark, J. (2014), "Enhancing tax compliance through coercive and legitimate power of authorities", *Law & Policy*, Vol. 36 No. 3, pp. 290-313.

Hofmann, E., Hartl, B., Gangl, K., Hartner-Tiefenthaler, M. and Kirchler, E. (2017), "Authorities' coercive and legitimate power: the impact on cognitions underlying cooperation", *Frontiers in Psychology*, Vol. 8 No. 5.

Jenny, A., Fuentes, F.H. and Mosler, H.J. (2007), "Psychological factors determining individual compliance with rules for common pool resource management: the case of a Cuban community sharing a solar energy system", *Human Ecology*, Vol. 35 No. 2, pp. 239-250.

Jiang, B. and Tian, L. (2015), "Collaborative consumption: strategic and economic implications of product sharing", available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2561907

Jorgensen, B., Graymore, M. and O'Toole, K. (2009), "Household water use behavior: an integrated model", *Journal of Environmental Management*, Vol. 91 No. 1, pp. 227-236.

Kandampully, J. (1998), "Service quality to service loyalty: a relationship which goes beyond customer services", *Total Quality Management*, Vol. 9 No. 6, pp. 431-443.

Katzev, R. (2003), "Car sharing: a new approach to urban transportation problems", *Analyses of Social Issues and Public Policy*, Vol. 3 No. 1, pp. 65-86.

Kharouf, H., Lund, D.J. and Sekhon, H. (2014), "Building trust by signaling trustworthiness in service retail", *Journal of Services Marketing*, Vol. 28 No. 5, pp. 361-373.

Kim, Y.S.K. (2007), "The role of perceived intent in consumer penalty evaluation", *Services Marketing Quarterly*, Vol. 28 No. 3, pp. 77-95.

Koopman, C. Mitchell, M.D. and Thierer, A.D. (2014). "The sharing economy and consumer protection regulation: the case for policy change", available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2535345

Lamberton, C.P. and Rose, R.L. (2012), "When is ours better than mine? a framework for understanding and altering participation in commercial sharing systems", *Journal of Marketing*, Vol. 76 No. 4, pp. 109-125.

Landis, J.R. and Koch, G.G. (1977), "The measurement of observer agreement for catelgorical data", *Biometircs*, Vol. 33 No. 1, pp. 159-174.

Leismann, K., Schmitt, M., Rohn, H. and Baedeker, C. (2013), "Collaborative consumption: Towards a resource-saving consumption culture", *Resources*, Vol. 2, pp. 184-203.

Martin, C.L. (2016), "Retrospective: compatibility management: customer-to-customer relationships in service environments", *Journal of Services Marketing*, Vol. 30 No. 1, pp. 11-15.

Martin, C.L. and Pranter, C.A. (1989), "Compatibility management: customer-to-customer relationships in service environments", *Journal of Services Marketing*, Vol. 3 No. 3, pp. 5-15.

Mason, C. and Simmons, J. (2012), "Are they being served? Linking consumer expectation, evaluation and commitment", *Journal of Services Marketing*, Vol. 26 No. 4, pp. 227-237.

Melnik, M.I. and Alm, J. (2002), "Does a seller's ecommerce reputation matter? Evidence from ebay auctions", *Journal of Industrial Economics*, Vol. 50 No. 3, pp. 337-349.

Millard-Ball, A. (2005), *Car-Sharing: Where and How it Succeeds*, Vol. 108, Transportation Research Board, Washington, DC.

Möhlmann, M. (2015), "Collaborative consumption: determinants of satisfaction and the likelihood of using a sharing economy option again", *Journal of Consumer Behaviour*, Vol. 14 No. 3, pp. 193-207.

Nicholls, R. (2010), "New directions for customer-to-customer interaction research", *Journal of Services Marketing*, Vol. 24 No. 1, pp. 87-97.

Owyang, J., Tran, C. and Silva, C. (2013), "The collaborative economy: Products, services, and market relationships have changed as sharing startups impact business models: to avoid disruption, companies must adopt the Collaborative Economy Value Chain (a Market Definition Report)", *Altimeter Research Theme: Digital Economies*,

Ozanne, L.K. and Ballantine, P.W. (2010), "Sharing as a form of anti-consumption? an examination of toy library users", *Journal of Consumer Behaviour*, Vol. 9 No. 6, pp. 4085-4498.

Ozanne, L.K. and Ozanne, J.L. (2011), "A child's fight to play: the social construction of civic virtues in toy libraries", *Journal of Public Policy & Marketing*, Vol. 30 No. 2, pp. 264-278.

Papadopoulou, P., Andreou, A., Kanellis, P. and Martakos, D. (2001), "Trust and relationship building in electronic commerce", *Internet Research-Electronic Networking Applications and Policy*, Vol. 11 No. 4, pp. 322-332.

Pennington, R., Wilcox, H.D. and Grover, V. (2003), "The role of system trust in business-to-consumer transactions", *Journal of Management Information Systems*, Vol. 20 No. 3, pp. 197-226.

Piscicelli, L., Cooper, T. and Fisher, T. (2015), "The role of values in collaborative consumption: Insights from a product-service system for lending and borrowing in the UK", *Journal of Cleaner Production*, Vol. 97, pp. 21-29.

Prettenthaler, F.E. and Steininger, K.W. (1999), "From ownership to service use lifestyle: the potential of car sharing", *Ecological Economics*, Vol. 28 No. 3, pp. 443-453.

Ranjan, K.R., Praveen, S. and Alexander, R. (2015), "A narrative review and meta-analysis of service interaction quality: new research directions and implications", *Journal of Services Marketing*, Vol. 29 No. 1, pp. 3-14.

Rauch, D.E. and Schleicher, D. (2015), "Like Uber, but for local governmental policy: The future of local regulation of the 'Sharing Economy'", available at: http://ssrn.com/abstract=2549919

Raven, B.H., Schwarzwald, J. and Koslowsky, M. (1998), "Conceptualizing and measuring a power/interaction model of interpersonal influence", *Journal of Applied Social Psychology*, Vol. 28 No. 4, pp. 307-332.

Sangmi, C., Das, S. and Rao, H.R. (2011), "Factors affecting bloggers' knowledge sharing: an investigation across gender", *Journal of Management Information Systems*, Vol. 28 No. 3, pp. 309-341.

Schneider, B., White, S.S and Paul, M.C. (1998), "Linking service climate and customer perceptions of service quality: tests of a causal model", *Journal of Applied Psychology*, Vol. 83 No. 2, pp. 150-163.

Schor, J. and Fritzmaurice, C. (2015), "Collaborating and connecting: the emergence of a sharing economy", in Reisch, L. and Thogersen, J. (Eds), *Handbook on Research on Sustainable Consumption*, Edward Elgar, Cheltenham.

Skinner, B.F. (1948), "Superstition in the pigeon", *Journal of Experimental Psychology*, Vol. 38 No. 2, pp. 168-172.

Sureshchandar, G.S., Rajendran, C. and Anantharaman, R.N. (2002), "The relationship between service quality and customer satisfaction – a factor specific approach", *Journal of Services Marketing*, Vol. 16 No. 4, pp. 363-379.

Tussyadiah, I. (2015), "An exploratory on drivers and deterrents of collaborative consumption in travel", in Tussyadiah, I. and Inversini, A. (Eds), *Information & Communication Technologies in Tourism 2015*, Springer International Publishing, Switzerland.

Umit Kucuk, S. and Krishnamurthy, S. (2007), "An analysis of consumer power on the internet", *Technovation*, Vol. 27 Nos 1/2, pp. 47-56.

Van Vugt, M. (2001), "Community identification moderating the impact of financial incentives in a natural social dilemma: water conservation", *Personality and Social Psychology Bulletin*, Vol. 27 No. 11, pp. 1440-1449.

Wang, Y. and Vassileva, J. (2003), "Trust and reputation model in peer-to-peer networks", *Peer-to-Peer Computing, (P2P 2003), Proceedings. Third International Conference, IEEE*, pp. 150-157.

Wallsten, S. (2015). "The competitive effects of the sharing economy: how is Uber changing taxis?", available at: www.ftc.gov/system/files/documents/public_comments/2015/06/01912-96334.pdf

Xiong, l. and Liu, l. (2004), "Peertrust: supporting reputation-based trust for peer-to-peer electronic communities", *IEEE Transactions on Knowledge and Data Engineering*, Vol. 16 No. 7, pp. 843-857.

Yu, B., Singh, M.P. and Sycara, K. (2004), "Developing trust in large-scale peer-to-peer systems", *Multi-Agent Security and Survivability, 2004 IEEE First Symposium, IEEE*, pp. 1-10.

Further reading

Belk, R. (1988), "Possessions and the extended self", *Journal of Consumer Research*, Vol. 15 No. 2, pp. 139-168.

Birky, J. and Strom, E. (2013), "Urban perennials: how diversification has created a sustainable community garden movement in the United States", *Urban Geography*, Vol. 34 No. 8, pp. 1193-1216.

Corbitt, B.J., Thanasankit, T. and Yi, H. (2003), "Trust and e-commerce: a study of consumer perceptions", *Electronic Commerce Research and Applications*, Vol. 2 No. 3, pp. 203-215.

Cusumano, M.A. (2015), "How traditional firms must compete in the sharing economy", *Communications of the ACM*, Vol. 58 No. 1, pp. 32-34.

Forbes (2013), "Explaining the Avis takeover of Zipcar", available at: www.forbes.com/sites/timworstall/2013/01/02/explaining-the-avis-takeover-of-zipcar/

French, J.R. and Raven, B. (1959), "The bases of social power", in Cartwright, D. (Ed.), *Studies in Social Power*, University of Michigan, Ann Arbor, pp. 150-167.

Gopal, R.D., Sanders, G.L., Bhattacharjee, S., Agrawal, M. and Wagner, S.C. (2004), "A behavioral model of digital music piracy", *Journal of Organizational Computing and Electronic Commerce*, Vol. 14 No. 2, pp. 89-105.

Greiner, M.E. and Wang, H. (2010), "Building consumer-to-consumer trust in e-finance marketplaces: an empirical analysis", *International Journal of Electronic Commerce*, Vol. 15 No. 2, pp. 105-136.

Harmaala, M.M. (2015), "How sharing promotes sustainability", *Journal of Finnish Universities of Applied Aciences*, p. 1.

Jones, K. and Leonard, L.N.K. (2014), "Factors influencing buers's trust in consumer-to-consumer e-commerce", *Journal of Computer Information Systems*, Vol. 54 No. 4, pp. 71-79.

Lee, M.S.W., Fernandez, K.V. and Hyman, M.R. (2009), "Anti-consumption: an overview and research agenda", *Journal of Business Research*, Vol. 62 No. 2, pp. 145-147.

Leimeister, J.M. and Krcmar, H. (2004), "Revisiting the virtual community business model", paper presented at the Proceedings of the Tenth American Conference on Information System, New York, NY.

Nordlund, A.M. and Garvill, J. (2002), "Value structures behind proenvironmental behavior", *Environment and Behavior*, Vol. 34 No. 6, pp. 740-756.

Olson, K. (2013), "National study quantifies reality of the 'sharing economy' movement", available at: www.campbell-mithun.com/678_national-study-quantifiesreality-of-the-sharing-economy-movement

Ooi, B.C., Liau, C.Y. and Tan, K.L. (2003). "Managing trust in peer-to-peer systems using reputation-based techniques", in Dong, G., Tang, C. and Wang, W. (Eds), *Advances in Web-Age Information Management, Proceedings*, Vol. 2762, pp. 2-12.

Sutanonpaiboon, J. and Abuhamdieh, A. (2008), "Factors influencing trust in online consumer-to-consumer (C2C) transactions", *Journal of Internet Commerce*, Vol. 7 No. 2, pp. 203-219.

Appendix. Vignettes

Study 1 vignettes for company/self-regulating community

"Imagine you have decided to use a shared car from a car sharing *company/from your housing community* for a small fee, as have other people. For the *company/community*, it is important that the car is always returned on time and in good condition. If you are often late or trash the car, it is possible that *the company even takes legal action against you/the community even reacts negatively to you*.

In order to facilitate the use of the car *the company provides a web platform where you can enter a request for the car, whereby conditions of borrowing the car are difficult to change/in the garage of the house a list is posted where you can enter a request for the car, whereby there are no conditions for borrowing the car*.

In addition, *the company/each member of the community* ensures that the car is serviced [*regularly*; only in the company version], in order to assure that it runs properly.

For smooth proceedings, *it is not necessary that you meet with staff of the car sharing company (it is necessary that you meet with the community regularly)*."

Study 2 vignettes for company/peer-to-consumer/self-regulating community

The community car of *a car sharing company/a private person who has posted the car on the internet/your housing community* can be used for a small fee, by you and other people, too.

For *the company/the private person/the community*, it is important that the car is always returned on time and in good condition.

Table AI Differences in service design in the three experimental conditions based on Goldstein *et al.* (2002)

Characteristics	Company	Private person	Community
People	Employees of company	One private person	Group of persons
Technology	Internet platform to register for car	Information via telephone to register for car	List in garage to register for car
Processes	Legal actions against undesirable customer behavior	Exclusion from car in case of undesirable customer behavior	Negative reaction from group in case of undesirable customer behavior
	Changing conditions for borrowing the car are difficult	Changing conditions for borrowing the car are easy	Conditions for borrowing the car do not exist
	Car is serviced by the company	Car is serviced by the private person	Car is serviced by each group member
Physical facilities	Not indicated	Not indicated	Garage in house
Equipment	Car	Car	Car
Outcomes	Driving car	Driving car	Driving car
Experiences	Journey with a functioning car	Journey with a functioning car	Journey with a functioning car
	No social interaction	Social interaction with private person	Social interaction with group of persons

Table AII Descriptive categories in English and German language

No	English	German original	German example
1	Maintenance, functionality of the car	Wartung, Funktionstüchtigkeit des Autos	*"Auto wird immer gewartet"*
2	Availability, selection of cars	Verfügbarkeit, Auswahl an Autos	*"Auto zum gewünschten Termin verfügbar"*
3	Flexibility	Flexibilität	*"Flexible Rahmenbedingungen"*
4	Integrity and professionalism	Seriosität and Professionalität	*"Gute Organisation von professionellen Institutionen"*
5	Location of the car	Lage des Autos	*"kein Anfahrtsweg zum Auto"*
6	Dependency	Abhängigkeit	*"zu großes Abhängigkeitsverhältnis"*
7	Costs	Kosten	*"Ich nehme an, dass das am günstigsten ist"*
8	Social conflicts	soziale Konflikte	*"Risiko für Streit in der Hausgemeinschaft"*
9	Law and safety	Recht and Sicherheit	*"klare Vertragsverhältnisse"*
10	Complexity	Komplexität	*"unbürokratisch"*
11	Responsibility	Verantwortung	*"Wenig Eigenverantwortung"*
12	Infrastructure	Infrastruktur	*"telefonische Vereinbarung ist mir am sympathischsten"*
13	Anonymity	Anonymität	*"Car sharing ist unpersönlicher, deshalb angenehmer"*
14	Social contacts respectively direct contact	soziale Kontakte bzw. Direktkontakt	*"persönliche Beziehungen vorhanden"*
15	Other	Sonstiges	

If you are often late or dirty the car, it is possible that the *company even initiates legal action against you/private person even excludes you from usage of the car/community reacts negatively to you*.

To make it easier to use the car, *the company provides an internet platform, where you can enter your request for a car/you can inform the private person of your request for a car* via *telephone/a list is on display in the garage of the building in which you can fill in your requests for a car*, whereby *the conditions of borrowing can be difficult to change/the conditions of borrowing can be changed unbureaucratically/conditions of borrowing do not exist*.

In addition, the *company/private person committedly/each member of the community* ensures that the car is serviced regularly, so it *should//should* always function/*s* properly.

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