Hawlitschek, F., Teubner, T., Weinhardt, C. 2016
Trust in the Sharing Economy. Die Unternehmung – Swiss Journal of Business Research and Practice 70(1), pp. 26-44.
http://dx.doi.org/10.5771/0042-059X-2016-1-26

Institute of Information Systems and Marketing (IISM)

Trust in the Sharing Economy

Florian Hawlitschek [a,*], Timm Teubner [b], Christof Weinhardt [c]

[a] *Karlsruhe Institute of Technology, Germany*
[b] *Karlsruhe Institute of Technology, Germany*
[c] *Karlsruhe Institute of Technology, Germany*

ABSTRACT

Trust has been in the focus of research on business-to-consumer (B2C) e-commerce in the last decade. The rise of consumer-to-consumer (C2C) markets in the context of the sharing economy, however, has posed new challenges and questions regarding the dimensionality and role of trust in online transactions. We outline a conceptual research model for the role of trust with regard to the consumers' and suppliers' intentions to engage in this economy. Our model differentiates between three substantial targets of trust, that is, trust towards peer, platform, and product (3P). We propose and evaluate a questionnaire, which addresses these targets in their dimensions ability, integrity, and benevolence.

Keywords: Sharing Economy, Trust, Survey, Consumer-to-Consumer e-Commerce

Disclaimer: This research is part conducted within the scope of the project Participation as a Service. The survey is funded by the Karlsruhe School of Services (KSOS) at KIT.

1 | Introduction

"Sharing, whether with our parents, children, siblings, life partners, friends, coworkers, or neighbors, goes hand in hand with trust and bonding." (Belk, 2010, 717)

While sharing is almost as old as mankind (Sahlins, 1972) the sharing economy, intermediated by Internet and mobile technology, is a phenomenon of the 21st century. In fact, driven by the facilitating role of peer-to-peer platforms and Information Systems (IS), its rise is changing the consumption behavior of millions of people around the globe. While C2C platforms such as Airbnb, eBay, or BlaBlaCar have gained considerable market shares in the western world, the incumbents of the respective industries are still atop. The picture differs dramatically in China, where C2C transactions accounted for 80% of the total online sales volume in 2014 (65% in 2013; Baker et al. (2014), Yoon and Occeña (2015)).

Large sharing economy platforms such as Airbnb exceed their figures every year. Research, however, is struggling to keep up with this rapid development. Even the term *sharing economy* itself still lacks a widely accepted and precise definition. In the IS community it is primarily used as an umbrella term for phenomena such as *Collaborative Consumption* (Rogers and Botsman, 2010), *Commercial Sharing Systems* (Lamberton and Rose, 2012), or *Access-Based Consumption* (Bardhi and Eckhardt, 2012). In line with Botsman (2013), we see the core idea of the sharing economy in making private and underutilized resources usable for others against (non-) monetary benefits.[1]

Sharing is closely related to trust (Belk, 2010), and so is the sharing economy. In the context of the sharing economy, trust is assumed to play a crucial role and was even referred to as its currency (Rogers and Botsman, 2010). Large international business consultancies also agree on that fact: "To share is to trust. That, in a nutshell, is the fundamental principle [...]."

*Correspondence to: Karlsruhe Institute of Technology (KIT), Fritz-Erler-Straße 23, 76133 Karlsruhe, phone: +49 (721) 608 48387 E-mail address: florian.hawlitschek@kit.edu

[1] Thereby the sharing economy, from our point of view, particularly comprises activities that would be considered as 'pseudo-sharing' by Belk (2014).

stated Roland Berger (in the Think Act Shared Mobility, July 2014). One year later PwC (2015) stated that "[...] convenience and cost-savings are beacons, but what ultimately keeps this economy spinning – and growing – is trust." (in the Consumer Intelligence Series: The Sharing Economy, April 2015). Hawlitschek et al. (2016) consider trust as one of 24 relevant drivers and impediments for the participation in peer-to-peer rental and Voeth et al. (2015) see the establishment of trust as a major challenge for suppliers in the context of the sharing economy. After several years of fundamental research regarding trust in business-to-consumer (B2C) e-commerce (e.g., Gefen (2000); McKnight and Chervany (2001); Gefen and Straub (2004)), an increasing number of scholars has started to explore the role of trust in consumer-to-consumer (C2C) e-commerce (e.g., Jones and Leonard (2008); Lu et al. (2010); Leonard (2012), Yoon and Occeña (2015)). It is one, if not the important driving factor for the long term success of C2C platforms (Strader and Ramaswami, 2002). Platform operators have hence established a plethora of design patterns and mechanisms to establish and maintain trust among their users, including mutual review and rating schemes, verification mechanisms, or meaningful user profiles (Teubner, 2014). However, trust is a multifaceted and complex construct – often hard to pin down (Keen et al., 1999). While in "traditional" (B2C) e-commerce it can be understood as a willingness to depend on an online vendor from an IS perspective (Gefen and Straub, 2004), the picture is more complex for C2C markets. Sharing Economy users engage in interactions with multiple parties, usually the platform operator and another private individual. Consequently both the vendor's and customer's role is taken by private individuals, sharing a ride, renting out a car, apartment, or other equipment – or seeking to rent it. The platform, however, acts as a broker and mediator between both market sides, and may also appear trustworthy or not. In this context trust may be affected by privacy concerns (Joinson et al., 2010) or website quality (Gregg and Walczak (2010); Yoon and Occeña (2015)). Moreover, even the product (and related experience)itself (think for example of a privately rented apartment or car) may be subject to trust concerns (Gefen et al., 2008), particularly since typically no official quality standards, sovereign regulation, or inspections are in place for these rather novel markets (Avital et al., 2015).

This paper thus outlines a conceptual research model for the role of trust in C2C markets, which differentiates between two market perspectives (consumer and supplier), as well as three targets: trust in *peer, platform, and product (3P)*. We develop a questionnaire for assessing the role of the different dimensions of trust in this context. Following the research agenda of Gefen et al. (2008), we thereby contribute to theory on trust in online environments by shedding light on the targets and dimensionality of trust in the sharing economy.

The remainder of this paper is structured as follows. Section 2 provides the theoretical background for trust in C2C markets, building on IS theories of trust in the "traditional" (B2C) e-commerce context. We then present our model and derive its central hypotheses. In Section 3, we operationalize our research model by means of a questionnaire and present the results of a validation study with 91 subjects. We summarize and discuss our findings in Section 4. Furthermore, in Section 5, we illustrate limitations and paths for future work. Section 6 presents the conclusions we draw from this work.

2 | Theoretical Background & Research Model

Measuring Trust in E-Commerce

Linking social presence to consumer trust, Gefen and Straub (2004) made a significant contribution in the research area of trust in B2C e-commerce that was frequently cited and used as a foundation for succeeding research models and approaches. Their model focusses on human behavior in the context of "traditional" (B2C) e-commerce, i.e., an Internet user facing the website of an e-vendor. Trust in this context is introduced as a multidimensional construct which differentiates between the four dimensions *ability*, *integrity*, *benevolence*, and textitpredictability. However, caused by the relationship of the parties concerned in a transaction, further aspects are focused on in studies dealing with trust in C2C e-commerce. Lu et al. (2010) analyzed how trust affects purchase intentions in the context of C2C buying in virtual communities. They found that especially the community members' trustworthiness influenced purchase intentions. For this purpose, their research model differentiates between the constructs *trust in members* and *trust in website/vendor* of the virtual community. Both constructs were separated into three dimensions: *ability*, *integrity*, and *benevolence*ability, integrity. For the construct *trust in members*, *integrity* and *benevolence* were merged into a single dimension. Jones and Leonard (2008) in contrast considered C2C *trust* as a single, one-dimensional construct and hypothesized internal (*natural propensity to trust, perception of website quality*) and external (*other's trust, third party recognition*) as influencing factors within C2C e-commerce settings. In a more recent study, Leonard (2012) distinguished between the two one-dimensional constructs *trust in seller* and *trust in buyer* which, along with *risk* of both, seller and buyer are hypothesized to influence selling or buying attitudes. Finally, Yoon and Occeña (2015) extended the model of Jones and Leonard (2008), adding age and gender as control variables.

However, as depicted in Table 1, none of the above mentioned models covers the three targets as well as the two distinct perspectives that appear as relevant in the context of transaction within the sharing economy. Hence, we suggest a comprehensive conceptual research model of trust for C2C sharing economy platforms.

	TARGETS OF TRUST			PERSPECTIVES	
	peer	*platform*	*product*	consumer	supplier
Gefen/Straub (2004)		×		×	
Jones/Leonard (2008)	×			——×——	
Lu et al. (2010)	×	×		——×——	
Leonard (2012)	×			×	×
Yoon/Occeña (2015)	×			——×——	
This work	×	×	×	×	×

(——×—— joint perspective)

Table 1: Literature on targets and perspectives for trust in the sharing economy

Towards a Research Model of Trust for C2C Sharing Economy Platforms

Based on the above, we propose a conceptual research model as depicted in Figure 1. Our key objective is to describe how trust influences users' intentions to transact on sharing economy platforms. To this end, we differentiate between the perspectives of consumers and suppliers. Moreover, the model distinguishes between three different targets of trust – the 3P: towards *peer*, *platform*, and *product*, represented by the dimensions *ability*, *integrity*, and *benevolence*, respectively. These three dimensions were already covered in the work of Gefen and Straub (2004) and are well established for measuring trust in online environments (Gefen et al., 2008). Within the scope of this work, we present our conceptual research model as a simplified basis for future research. Further aspects such as trust transfer and antecedents of trust (Lu et al., 2010) should also be addressed in future work.

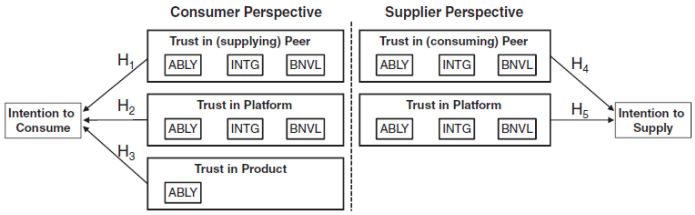

Figure 1: Research model for trust in C2C markets

Consumer Perspective

Trust in (supplying) peer describes whether the supplier has the skills and competences to execute his part of the transaction, and whether he is considered as a transaction partner of high integrity and benevolence (Pavlou and Fygenson, 2006). The constructs *integrity* ("the supplier keeps his word") and *benevolence* ("the supplier keeps the consumer's interests in mind") are closely related as a benevolent supplier will most likely also exhibit high levels of integrity and vice versa. Several scholars have thus employed joint constructs to assess the general notion, e.g., in the context of virtual communities (Ridings et al. (2002); Lu et al. (2010)). The general notions of integrity and benevolence are particularly important in C2C markets – compared to B2C – for at least two interacting reasons. First, the supplying peer will most likely not appear as a legal entity but as a private person. In many cases, regulative buyer protection does not yet exist or is still limited or discussed for private-to-private sharing economy transactions (Koopman et al., 2015). Second, customers in today's C2C market interactions are often put into a particular vulnerable position, where – e.g. in the context of apartment and ride sharing – they strongly depend on the desirable behavior and task fulfillment of the supplying peer: Who wants to end up in a foreign city late at night, discovering that the booked and paid apartment simply does not exist or that the driver does not show up? Another important aspect is ability. Given that a transaction partner is well-meaning, it could still be that he or she is simply lacking the skills to properly (or safely) complete the task – think for example of amateur or hazardous UBER drivers who might unintentionally endanger a customer's safety (see Feeney (2015)). This speaks in favor of the conjecture that trust (based on *ability*, *integrity*, and *benevolence*) towards the supplying peer positively affects a user's intention to consume in a C2C sharing economy market. Furthermore, the intention to complete a transaction was found to depend on trust in the (supplying) peer (Lu et al. (2010); Leonard (2012)). We hence hypothesize that:

> **Hypothesis 1.** *Trust in the (supplying) peer positively affects intention to consume.*

According to Gefen (2002), *trust in platform* is also based on beliefs about *ability*, *integrity*, and *benevolence* of a website or vendor. In contrast to B2C the platform operator in C2C markets primarily acts as a mediator between the peers. Ability here could refer to whether the platform successfully finds and connects transaction partners, i.e., its adoption. Secure and reliable data handling is another important aspect. Perceptions of a platform's integrity and benevolence, in turn, could be linked to how much it charges its users, the design of user support, excessive email spamming, third-party access to user data, and its general reputation, for instance, for being a "data kraken" or exploiting suppliers. To find a suitable offer, a user typically creates an account (providing private data such as name, credit card information, email, etc.). Privacy calculus theory states the privacy risk involved with this behavior is weighted against its benefits, where trusting beliefs towards the platform operator are positively associated with intention to disclose (Krasnova et al. (2012); Dinev and Hart (2006)). Moreover, Gefen (2002) found that trust in platform's ability positively affects window-shopping intentions of consumers and that trust in the integrity as well as benevolence affects the purchase intention. We hence suggest that:

> **Hypothesis 2.** *Trust in the platform positively affects intention to consume.*

Trust in product describes how the product itself is perceived as reliable by the (potential) consumer. Comer et al. (1999) defined "product trust [as] the belief that the product/service will fulfill its functions as understood by the buyer" (p. 62). We transfer this notion to C2C sharing economy platforms where consumers have to decide whether to trust in the

often virtually presented product characteristics. A rented car needs to work for obvious reasons of convenience and safety, a rented or purchased good is expected to fulfill its purpose, and also a rented apartment needs to be functional in terms of features and experience. Based on the argumentation of Gefen et al. (2008), we argue that trust related to the product (especially to experience products) has a special role in the context of C2C sharing economy platforms. Since the product is an inanimate object, it does not have a will or intention. Its functionality and quality are covered by the trust dimension of ability. Our third hypothesis hence states:

> **Hypothesis 3.** *Trust in the product positively affects intention to consume.*

Supplier Perspective

As most C2C platforms work on the basis of mutual agreement to trigger a transaction, also the supplier's *trust in the consuming peer* is of importance. A supplier's concern about damage to a certain resource due to hidden actions by a consumer is a key impediment to sharing (Weber, 2014). This becomes particularly evident for peer-to-peer rental services as the supplier cedes her car, apartment, or other resource (the platform Rover.com even connects dog owners and sitters) to another person for use and has no effective control over it for the agreed period of time. Consequently, entrusting personal belongings – one's home, car, let alone a pet – to an unknown stranger requires that the supplier trusts in the ability of the consumer: On the one hand, being convinced by the skills and on the other hand by the knowledge the consumer owns (Lu et al., 2010). Nevertheless, without the supplier's trust in the in the integrity and benevolence of the consuming peer, an agreement appears hard to achieve. Against the background of the two constructs *integrity* ("the consumer keeps his word") and *benevolence* ("the consumer keeps the supplier's interests in mind") this means that the supplier would need to be convinced that his or her possessions are neither used for purposes that were not agreed nor over- or abused. Think for example of renting out your car at Tamyca.de (a German platform for peer-to-peer car rental) to someone who owns a driver's license – which technically means the person is able to drive a car–but conveys the impression that he or she does neither care about the exact time of returning, nor about the condition of the car. Beyond these considerations, empirical evidence supports our claim. Teubner et al. (2014) found, based on different types of user representation in an experiment, that subjects trusted their socially present peers more than their anonymous ones, and that trust translated into sharing behavior. We therefore suggest:

> **Hypothesis 4.** *Trust in the (consuming) peer positively affects intention to provide.*

In accordance with the train of thought leading to the three dimensions of trust from the consumer perspective (c.f. Gefen (2002); Dinev and Hart (2006); Krasnova et al. (2012)), *supplier's trust in the platform* also rests upon the constructs *ability*, *integrity*, and *benevolence*. The platform's ability in this context can be understood as a competence or qualification for seamless communication and service operation, i.e. the successful mediation between peers. Suppliers might for example expect an adequate pre-selection of requests by the platform operator as well as a functional and easy-to-use booking, payment, and reputation system. Aspects, such as reliability (especially regarding data privacy and potential claims) or safeguarding of supplier interests (e.g. legal certainty and payments) are reflected in the integrity and benevolence dimension. From a supplier's perspective mechanisms to absorb risks of resource damage, exemplarily by a standardized insurance coverage (Weber, 2014) and transparent profit-sharing mechanisms might increase the trust in a certain platform. Furthermore, communication protocols facilitating a supplier's data security so that privacy is not threatened unduly also appear beneficial in terms of promoting trust towards a platform. Extending the argumentation of Lu et al. (2010), we suggest that *trust in platform* also plays a role for the supplier's intention to commit a transaction:

> **Hypothesis 5.** *Trust in the platform positively affects intention to provide.*

As the offered product belongs to the supplying peer, its abilities can in principle be examined by the supplier anytime. Therefore, a trust dimension from the supplier's point of view is not considered as relevant.

3 | Methodology: Survey Design

In order to evaluate our model empirically, we conducted an online survey, describing an accommodation sharing scenario, guided by the example of Airbnb. In doing so, we followed widely accepted methodological guidelines and frameworks (Churchill Jr (1979); DeVellis (2003); Hinkin (1998); MacKenzie et al. (2011)).
First, a review of related work lead to the identification of targets (*peer, platform, product*) and dimensions (*ability, integrity, benevolence*) of trust, as outlined in Section 2. Based on this, we developed a conceptual framework comprising both market sides: supplier and consumer. We now develop a measurement model based on closed-ended items that represent the dimensions and assess their content validity based on data collected in an online survey. We then refine the conceptualization and purify the measurement model by means of exploratory factor analysis. With these steps, we cover the scale development phases conceptualization, development of measures, model specification, as well as scale evaluation and refinement suggested by MacKenzie et al. (2011).

Measurement Model and Survey

Our measurement is based on survey items using 7-point Likert scales (6-point Likert scales for *intention to consume*

and supply). Whenever possible, we used or adapted existing scales. If no adequate template was available, specific items were generated. In total, we used three items for each of the formulated constructs. Wording of items followed standard guidelines (Harrison and McLaughlin (1993); Tourangeau et al. (2000)). We performed a content validity assessment with three judges who were otherwise not involved in the research and revised items where necessary.

The questionnaires for the consumer and supplier perspective were presented in separate blocks, whereas every participant responded from both perspectives. The sequence of these blocks and of the items within each block was varied randomly. At the beginning, a short introduction explained the scope of the survey. The questionnaire included additional constructs assessing the users' intentions to provide or book an apartment via Airbnb. We furthermore queried the following control variables: gender, age, risk propensity (Dohmen et al., 2011), as well as prior Airbnb usage. Additionally, we added checks to ensure participants in fact read and understood the questions and answered honestly (e.g., "please state if you read the introduction carefully"). Participants were recruited using a pool of voluntary survey participants at the Karlsruhe Institute of Technology.[2] Participation was incentivized by a prize draw of 1 x € 50, 2 x € 20, and 3 x € 10 among all participants completing the survey. To take part in this lottery, participants could enter their email address at the end of the survey on a voluntary basis and were informed that the address would not be matched to their answers in the questionnaire.

We invited a total of 500 participants via email and sent a reminder to non-responders after three days. The survey was accessible for one week. Altogether, 122 participants started the survey, of which 99 completed it. To ensure data quality, we excluded subjects who did not pass understanding questions or stated that they did not answer honestly. Altogether, 91 out of 99 observations were retained, whereas 24 of the corresponding participants are female (26%) and 67 are male. Age ranges from 17 to 31 with mean 22.92 and median 23 years.

3.1 Exploratory Factor Analysis

We provide lists of all constructs and items in Tables A-1 and B-1 in the Appendix. Moreover, these tables indicate the used references and Cronbach's alphas for each construct, as well as descriptive statistics (mean and standard deviation) for each item. Except for the construct "Trust in providing peer's benevolence" (where Cronbach's alpha is equal to 0.697), the conventional benchmark of 0.7 is exceeded for all constructs, which indicates a high level of consistency (Nunnally Jr, 1978).

We performed an exploratory factor analysis with oblique rotation (oblimin) for each of the perspectives (supplier and consumer). The decision on how many factors to retain was based on the Minimum-Average-Partial-Test (MAP test, Hayton et al. (2004)). We therefore decided to extract four factors for both perspectives. Items were dropped when they had a major loading <0.4, communality <0.4, a cross-loading >=0.4, or when they lacked content fit with the factors. The results of the exploratory factor analysis for both perspectives are summarized in Tables C and D in the Appendix. Results for the consumer perspective should be reconsidered and interpreted with caution, since a Heywood case occurs, possibly due to the small sample size (cf. Osborne and Costello (2009)).

Consumer Perspective: With regard to the consumer perspective, we see three distinct trust factors emerging, and one factor capturing the consumer's intention to consume on sharing economy platforms. Each factor captures one of our hypothesized concepts of *peer*, *platform*, and *product*. The factor for *peer* comprises all dimensions *ability*, *integrity*, and *benevolence*, whereas the factor for *platform* draws on *benevolence* only. Lastly, trust towards *product* (based on *ability*) captures a consumer's willingness to technically rely on the shared resource.

Supplier Perspective: We find that, also from the supplier perspective, there emerge three distinct trust factors and one factor capturing the supplier's intention to supply on sharing economy platforms. The first factor captures trust towards the *platform* and comprises all dimensions *ability*, *integrity*, and *benevolence*. The second and third factors refer to the *peer*, whereas now, two distinct factors for *benevolence* and *ability* are extracted. Following the argumentation of Lu et al. (2010), we interpret the loadings of seven items from the consumer perspective, and eight items from the supplier perspective on a respective single factor as reasonable. In both cases all items measure the corresponding sub-dimensions of trust in *peer* or *platform*.

Reconsideration of Hypotheses

As a first step towards understanding which targets and dimensions of trust drive the consumers' and suppliers' intention to use sharing economy platforms such as Airbnb, we apply multivariate linear regression models with *intention to consume (intention to supply*, respectively) as dependent, and the emerged trust factors as independent variables. Moreover, we control for *gender* (dummy coded as 0="male" and 1="female"), *age*, *risk propensity* (scale from 0="highly risk-averse" to 10="highly risk-seeking"), and prior Airbnb *experience* (coded as 0="not knowing Airbnb," 1="knowing but not using," and 2="using"). Note that, from a methodological point of view, subsequent analyses should in fact be based on independently collected data and require more sophisticated approaches (a refinement of our measurement model, confirmatory factor analysis and eventually a detailed analysis based on structural equation modelling will be subject to

[2] Survey items were thus presented in German language (see Tables A-2 and B-2 in the Appendix).

Dependent Variable: Intention to Consume			*Dependent Variable: Intention to Supply*		
	Coef.^{sig}	*S.E.*		*Coef.*^{sig}	*S.E.*
Platform $^{(BNVL)}$	.2150*	.0821	Platform $^{(ABLY, INTG, BNVL)}$	.2418*	.1145
Peer $^{(ABLY, INTG, BNVL)}$	.2043*	.1009	Peer $^{(ABLY)}$	.2711*	.1212
Product $^{(ABLY)}$	.1663*	.0711	Peer $^{(BNVL)}$	.0215	.1228
Age	.0127	.0265	Age	.0389	.0326
Female	.3076+	.1840	Female	.1062	.2285
Risk propensity	.0833*	.0399	Risk propensity	.0357	.0500
Experience	.4822***	.1115	Experience	.2457+	.1313
(Intercept)	-1.4390*	.6861	(Intercept)	-1.4224+	.8437
$R^2_{adj.} = .452$			$R^2_{adj.} = .214$		

(***p<.001, **p<.01, *p<.05, +p<.1)
Platform $^{(BNVL)}$: trust in *platform benevolence*; Peer $^{(ABLY, INTG, BNVL)}$: trust in *peer ability*, *integrity*, *benevolence*;
Product $^{(ABLY)}$: trust in *product ability*; Platform $^{(ABLY, INTG, BNVL)}$: trust in *platform ability*, *integrity*, *benevolence*;
Peer $^{(ABLY)}$: trust in *peer ability*; Peer $^{(BNVL)}$: trust in *peer benevolence*

Table 2: Multivariate linear regression for intention to consume and intention to supply

future research). Our preliminary analysis and results must hence be seen in light of this limitation and serve only to indicate the general suitability of our 3P approach. Table 2 comprises the results of the multivariate linear regression.

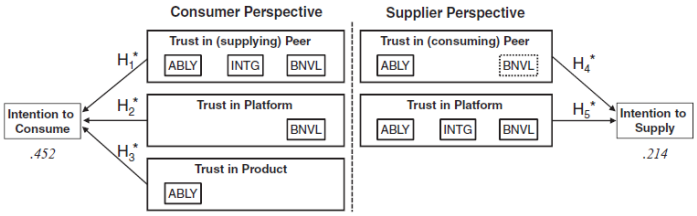

Figure 2: Reconsideration of hypotheses

As depicted in Figure 2, several main results strike the eye: First, higher levels of trust towards the *platform* significantly increase users' sharing intentions–both for the supply and the demand side (whereas from a consumer perspective, trust towards the *platform* is only represented by the dimension of *benevolence*). The same holds for trust towards the *peer*, where for the supplier, only the *ability* dimension of *peer* trust has a significant impact, whereas *peer benevolence* is non-significant. Moreover, trust towards *product ability* significantly increases the consumers' sharing intentions as well. Note that non-significance should be interpreted with caution here, since the sample size (n=91) is rather small.
Consequently, hypotheses H1-H5, stating that the *3P*–trust towards *peer*, *platform* (and *product*) – positively influence consuming (and supplying) intentions, are supported by our findings. Our models furthermore yield reasonably high adjusted R-squared values (.452 for consumer, .214 for supplier perspective), speaking in favor of that the trust factors in fact capture some of what drives usage intentions.

Controlling for risk propensity exhibits more pronounced usage intentions for risk-seeking consumers. We do not observe an analogous effect for suppliers. Additionally, higher usage in the past and present appears to be a good predictor of future usage intentions too, whereas this effect is only marginally significant $p < .10$ for suppliers. We do not observe any effects due to age or gender.
These main results indicate i) the validity of our theory-guided separation of trust into its targets and dimensions, and ii) underline the importance of trust in the sharing economy in the sense of Rogers and Botsman (2010). Note that these results hold robustly for any set of additional control variables used.

4 | Discussion

Within the scope of this paper, we developed a research model for the role of trust in C2C sharing economy platforms that is based on the 3P of trust, i.e., towards *peer*, *platform*, or *product* – represented by the dimensions *ability*, *integrity*, and *benevolence*. It incorporates both the consumers' and suppliers' intentions to consume or supply a resource, as both are represented by private, i.e. non-professional, persons. Trust is without any doubt a highly complex construct – especially within the context of the sharing economy. According to Gefen et al. (2008) it is important to reconsider the construct of trust and its dimensionality in the context of different online environments. We agree with this notion. Note, however, that a too fine-grained differentiation of targets and dimensionality into sub-constructs may eventually stretch the participants' sensibility and empirical methods to its limits, if overdone. Our results suggest that the differentiation of

trust with respect to its targets *peer*, *platform*, and *product* (the *3P* of trust) is rather complex, but still well-suited for C2C contexts. For the well-established sub-dimensions *ability*, *integrity*, and *benevolence* people appear to follow a less clear-cut psychological model, especially with regard to *integrity* and *benevolence*. While for consumers, the platform's *benevolence* emerged as distinct factor, the perception of their *peers'* trustworthiness draws on all three dimensions. Likewise, for suppliers' there emerged a mixed factor for the *platform's* trustworthiness, and two distinct factors for their *peers*, capturing *ability* and *benevolence*, whereas the dimension of *integrity* dissolved and did not manifest in a distinct factor.

These results indicate that the trust relation between supplier and *platform* is much more pronounced than that between consumer and platform. And in deed, a supplier deals with the *platform* at various instances and, maybe more importantly, in some way lays his or her micro-entrepreneurial fate into the hands of the platform. This touches the platform's capability to generate activity and route users to the listing (*ability*), the fact that providers supply a host of personal data (*integrity*), and that they may have to rely on obligingness in case of unexpected turns or damages (*benevolence*). Likewise, consumers see a comprehensive *peer* trust factor, indicating that guests have to rely on their hosts' trustworthiness in many ways. On the other hand, hosts clearly differentiate between *peer ability and benevolence*, indicating a much more rational view.

With regard to our preliminary regression results, we find that all targets of trust (*peer*, *platform*, and *product*) play a viable role in positively affecting a user's intention to use sharing economy platforms such as Airbnb.

5 | Limitations

The work presented above is subject to a set of specific limitations. First of all, the data underlying our study is collected from a student sample from the Karlsruhe Institute of Technology and only comprises 91 independent observations. Although the age class from 18 to 29 years was identified as a main user group of sharing economy offers (PwC, 2015), our sample is not representative for a broader population. Consequently, the question of whether or not our observations are generalizable to a more comprehensive spectrum of potential consumers and suppliers in the sharing economy context remains unanswered. In addition to that our survey data (which is based on voluntary participation) might imply an inherent response bias. Subjects who answered voluntarily to our survey might already be biased in certain respects regarding the role of trust in the sharing economy. Finally, from a methodological point of view, in-depth analyses requires a reconsideration of our survey items based on the insight gained from this work, as well as more sophisticated statistical approaches such as confirmatory factor analysis and eventually structural equation modelling based on a broader and larger sample of observations.

6 | Conclusion

In this article, we considered the role of trust in a sharing economy scenario in light of market sides, targets, and dimension of trust, exceeding the degree of differentiation of existing models. While trust research in "traditional" (B2C) e-commerce settings focusses primarily on the consumers' trust towards the online vendor (Gefen and Straub, 2004), its interconnections are more complex for C2C e-commerce, comprising mutual trust considerations among *peers*, the *platform*, as well as trust towards the *product* or resource at hand. All these aspects are typically not subject to conventional standardization or regulation, emphasizing the importance of trust in the sharing economy. In this context, platforms not only need to appear trustworthy themselves in order to generate business, they also need to take into account and manage their users' mutual perceptions of one another as well as of the resources exchanged on the platform. Understanding the role of trust in a more fine-grained way will enable research to further explore the behavioral mechanics of the sharing economy, and also guide practitioners in creating viable markets. Future research should thus focus on how to build and sustain trust in peer-to-peer market settings as well as the antecedents and influencing factors of trust towards *peer*, *platform*, and *product*.

Acknowledgement

We want to thank *Christian Peukert* and *Julien Oehler* for their reliable and competent support in conducting this research project.

References

Avital, M., J. M. Carroll, A. Hjalmarsson, N. Levina, A. Malhotra, and A. Sundararajan (2015). The Sharing Economy: Friend or Foe? In *Proceedings of the Thirty Sixth International Conference on Information Systems, Fort Worth, USA*.

Baker, L. B., J. Toonkel, and R. Vlastelica (2014). Alibaba surges 38 percent on massive demand in market debut. http://www.reuters.com/article/us-alibaba-ipo-idUSKBN0HD2CO20140919, 16.1.2016.

Bardhi, F. and G. M. Eckhardt (2012). Access-based consumption: The case of car sharing. *Journal of Consumer Research 39*(4), 881–898.

Belk, R. (2010). Sharing. *Journal of Consumer Research 36*(5), 715–734.

Belk, R. (2014). Sharing versus pseudo-sharing in web 2.0. *The Anthropologist 18*(1), 7–23.

Botsman, R. (2013). The Sharing Economy lacks a shared definition. http://www.collaborativeconsumption.com/2013/11/22/the-sharing-economy-lacks-a-shared-definitio, 16.1.2016.

Churchill Jr, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research 16*(1), 64–73.

Comer, J. M., R. E. Plank, D. A. Reid, and E. B. Pullins (1999). Methods in sales research: Perceived trust in business-to-business sales: A new measure. *Journal of Personal Selling & Sales Management 19*(3), 61–71.

DeVellis, R. (2003). Scale development (vol. 26).

Dinev, T. and P. Hart (2006). An extended privacy calculus model for e-commerce transactions. *Information Systems Research 17*(1), 61–80.

Dohmen, T., A. Falk, D. Huffman, U. Sunde, J. Schupp, and G. G. Wagner (2011). Individual risk attitudes: Measurement, determinants, and behavioral consequences. *Journal of the European Economic Association 9*(3), 522–550.

Feeney, M. (2015). Is ridesharing safe? http://www.memphistn.gov/Portals/0/pdf_forms/CAT0.pdf, 16.1.2016.

Gefen, D. (2000). E-commerce: The role of familiarity and trust. *Omega 28*(6), 725–737.

Gefen, D. (2002). Customer loyalty in e-commerce. *Journal of the Association for Information Systems 3*(1), 2.

Gefen, D., I. Benbasat, and P. Pavlou (2008). A research agenda for trust in online environments. *Journal of Management Information Systems 24*(4), 275–286.

Gefen, D. and D. W. Straub (2004). Consumer trust in b2c e-commerce and the importance of social presence: Experiments in e-products and e-services. *Omega 32*(6), 407–424.

Gregg, D. G. and S. Walczak (2010). The relationship between website quality, trust and price premiums at online auctions. *Electronic Commerce Research 10*(1), 1–25.

Harrison, D. A. and M. E. McLaughlin (1993). Cognitive processes in self-report responses: Ests of item context effects in work attitude measures. *Journal of Applied Psychology 78*(1), 129.

Hawlitschek, F., T. Teubner, and H. Gimpel (2016). Understanding the Sharing Economy–Drivers and impediments for participation in peer-to-peer rental. In *49th Hawaii International Conference on System Sciences (HICSS)*, pp. 4782–4791. IEEE.

Hayton, J. C., D. G. Allen, and V. Scarpello (2004). Factor retention decisions in exploratory factor analysis: A tutorial on parallel analysis. *Organizational Research Methods 7*(2), 191–205.

Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods 1*(1), 104–121.

Joinson, A. N., U.-D. Reips, T. Buchanan, and C. B. P. Schofield (2010). Privacy, trust, and self-disclosure online. *Human–Computer Interaction 25*(1), 1–24.

Jones, K. and L. N. Leonard (2008). Trust in consumer-to-consumer electronic commerce. *Information & Management 45*(2), 88–95.

Keen, P., G. Ballance, S. Chan, and S. Schrump (1999). *Electronic commerce relationships: Trust by design*. Prentice Hall PTR.

Koopman, C., M. D. Mitchell, and A. D. Thierer (2015). The Sharing Economy and consumer protection regulation: The case for policy change. *The Journal of Business, Entrepreneurship & the Law 8*(2), 529.

Krasnova, H., N. F. Veltri, and O. Günther (2012). Self-disclosure and privacy calculus on social networking sites: The role of culture. *Business & Information Systems Engineering 4*(3), 127–135.

Lamberton, C. P. and R. L. Rose (2012). When is ours better than mine? a framework for understanding and altering participation in commercial sharing systems. *Journal of Marketing 76*(4), 109–125.

Leonard, L. N. (2012). Attitude influencers in C2C E-commerce: Buying and selling. *Journal of Computer Information Systems 52*(3), 11–17.

Lu, Y., L. Zhao, and B. Wang (2010). From virtual community members to c2c e-commerce buyers: Trust in virtual communities and its effect on consumers' purchase intention. *Electronic Commerce Research and Applications 9*(4), 346–360.

MacKenzie, S. B., P. M. Podsakoff, and N. P. Podsakoff (2011). Construct measurement and validation procedures in MIS and behavioral research: Integrating new and existing techniques. *MIS Quarterly 35*(2), 293–334.

McKnight, H. D. and N. L. Chervany (2001). What trust means in e-commerce customer relationships: An interdisciplinary conceptual typology. *International Journal of Electronic Commerce 6*(2), 35–59.

Nunnally Jr, J. (1978). Jr. psychometric theory.

Osborne, J. W. and A. B. Costello (2009). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Pan-Pacific Management Review 12*(2), 131–146.

Pavlou, P. A. and M. Fygenson (2006). Understanding and predicting electronic commerce adoption: An extension of the theory of planned behavior. *MIS Quarterly 30*(1), 115–143.

PwC (2015). Share Economy: Repräsentative Bevölkerungsbefragung. https://www.pwc.de/de/digitale-transformation/assets/pwc-bevoelkerungsbefragung-share-economy.pdf, 16.1.2016.

Ridings, C. M., D. Gefen, and B. Arinze (2002). Some antecedents and effects of trust in virtual communities. *The Journal of Strategic Information Systems 11*(3), 271–295.

Rogers, R. and R. Botsman (2010). What's mine is yours: The rise of collaborative consumption.

Sahlins, M. D. (1972). Stone age economics, new york.

Strader, T. J. and S. N. Ramaswami (2002). The value of seller trustworthiness in C2C online markets. *Communications of the ACM 45*(12), 45–49.

Teubner, T. (2014). Thoughts on the sharing economy. In *Proceedings of the International Conference on E-Commerce*, Volume 11, pp. 322–326.

Teubner, T., M. T. Adam, S. Camacho, and K. Hassanein (2014). Understanding resource sharing in C2C platforms: The role of picture humanization. In *Proceedings of the Australasian Conference on Information Systems (ACIS)*, Volume 25.

Tourangeau, R., L. J. Rips, and K. Rasinski (2000). *The psychology of survey response*. Cambridge University Press.

Voeth, M., J. Pölzl, and O. Kienzler (2015). Sharing economy–chancen, herausforderungen und erfolgsfaktoren für den wandel vom produktgeschäft zur interaktiven dienstleistung am beispiel des car-sharings. In *Interaktive Wertschöpfung durch Dienstleistungen*, pp. 469–489. Springer.

Weber, T. A. (2014). Intermediation in a sharing economy: Insurance, moral hazard, and rent extraction. *Journal of Management Information Systems 31*(3), 35–71.

Yoon, H. S. and L. G. Occeña (2015). Influencing factors of trust in consumer-to-consumer electronic commerce with gender and age. *International Journal of Information Management 35*(3), 352–363.

Appendix

Item	*Code*	*Adap. from*	*Mean*	*Stand. Dev.*	*Cron. alpha*
Consumer perspective					
Trust in providing peer's ability					.878
The lessors on Airbnb are competent.	cPeAB1	*Gefen/ Straub* (2004)	4.824	1.028	
The lessors on Airbnb are capable.	cPeAB2		4.769	1.034	
The lessors on Airbnb are qualified.	cPeAB3		4.516	1.109	
Trust in providing peer's integrity					.884
The lessors on Airbnb are reliable.	cPeIN1	*Gefen/ Straub* (2004)	5.066	1.104	
The lessors on Airbnb are honest.	cPeIN2		4.989	1.090	
The lessors on Airbnb keep their word.	cPeIN3		5.088	.996	
Trust in providing peer's benevolence					.697
The lessors on Airbnb also keep my interests in mind.	cPeBE1	*Gefen/ Straub* (2004)	4.736	1.298	
The lessors on Airbnb mean no harm to me.	cPeBE2		5.418	1.096	
The lessors on Airbnb are principally well-meaning.	cPeBE3		5.022	1.174	
Trust in platform's ability					.877
Airbnb is competent in dealing with tenants.	cPlAB1	*Lu et al.* (2010)	5.297	1.005	
Airbnb is capable of meeting my requirements as a tenant.	cPlAB2		5.429	1.127	
Airbnb is qualified to offer me a good service for renting accommodations.	cPlAB3		5.429	1.156	
Trust in platform's integrity					.801
The statements provided by Airbnb are reliable.	cPlIN1	*Lu et al.* (2010)	5.121	1.094	
Airbnb is honest in dealing with my private data.	cPlIN2		4.659	1.276	
Airbnb delivers agreed service to tenants.	cPlIN3		5.176	1.160	
Trust in platform's benevolence					.795
Airbnb keeps the interests of tenants in mind.	cPlBE1	*Lu et al.* (2010)	5.374	1.061	
Airbnb means no harm to tenants.	cPlBE2		5.692	1.171	
Airbnb has no bad intentions towards tenants.	cPlBE3		5.714	1.047	
Trust in product's ability					.789
The accommodations on Airbnb are well suited for my purposes.	cPrAB1	*Plank et al.* (1999)	5.648	1.129	
With the accommodations on Airbnb you rarely experience nasty surprises.	cPrAB2		4.582	1.326	
The accommodations on Airbnb meet my requirements.	cPrAB3		5.593	.977	
Consuming intention					.904
I would consider to rent accommodations on Airbnb.	cINT1	*Lu et al.* (2010)	5.088	.985	
Probably I would indeed rent accommodations on Airbnb.	cINT2		4.758	1.186	
I would intend to rent accommodations on Airbnb.	cINT3		4.791	1.080	

Table A-1: Construct items, and descriptive statistics (consumer perspective)

Item	*Code*	*Adap. from*	*Mean*	*Stand. Dev.*	*Cron. alpha*
Supplier perspective					
Trust in consuming peer's ability					.812
The tenants on Airbnb are competent.	sPeAB1	*Gefen/ Straub* (2004)	2.769	2.604	
The tenants on Airbnb are capable.	sPeAB2		3.044	2.670	
The tenants on Airbnb are qualified.	sPeAB3		2.615	2.585	
Trust in consuming peer's integrity					.828
The tenants on Airbnb are reliable.	sPeIN1	*Gefen/ Straub* (2004)	3.681	2.394	
The tenants on Airbnb are honest.	sPeIN2		3.275	2.638	
The tenants on Airbnb keep their word.	sPeIN3		3.560	2.491	
Trust in consuming peer's benevolence					.709
The tenants on Airbnb also keep my interests in mind.	sPeBE1	*Gefen/ Straub* (2004)	3.538	2.410	
The tenants on Airbnb mean no harm to me.	sPeBE2		4.549	2.301	
The tenants on Airbnb are principally well-meaning.	sPeBE3		3.681	2.371	
Trust in platform's ability					.824
Airbnb is competent in dealing with lessors.	sPlAB1	*Lu et al.* (2010)	5.275	.990	
Airbnb is capable of meeting my requirements as a lessor.	sPlAB2		5.319	1.010	
Airbnb is qualified to offer me a good service for letting.	sPlAB3		5.319	1.124	
Trust in platform's integrity					.710
The statements provided by Airbnb are reliable.	sPlIN1	*Lu et al.* (2010)	5.319	1.094	
Airbnb is honest in dealing with my private data.	sPlIN2		4.791	1.287	
Airbnb delivers agreed service to lessors.	sPlIN3		5.363	.983	
Trust in platform's benevolence					.829
Airbnb keeps the interests of lessors in mind.	sPlBE1	*Lu et al.* (2010)	5.176	1.101	
Airbnb means no harm to lessors.	sPlBE2		5.802	.980	
Airbnb has no bad intentions towards lessors.	sPlBE3		5.670	1.126	
Supplying intention					.926
I would consider to rent my apartment/ my room on Airbnb.	sINT1	*Lu et al.* (2010)	4.011	1.354	
Probably I would indeed rent my apartment/ my room on Airbnb.	sINT2		3.374	1.339	
I would intend to rent my apartment/ my room on Airbnb.	sINT3		3.593	1.358	

Table B-1: Construct items, and descriptive statistics (supplier perspective)

Item (German)	*Code*	*Adap. from*	*Mean*	*Stand. Dev.*	*Cron. alpha*
Consumer perspective					
Trust in providing peer's ability					.878
Die Vermieter auf Airbnb sind kompetent.	cPeAB1	*Gefen/ Straub* (2004)	4.824	1.028	
Die Vermieter auf Airbnb sind fähig.	cPeAB2		4.769	1.034	
Die Vermieter auf Airbnb sind qualifiziert.	cPeAB3		4.516	1.109	
Trust in providing peer's integrity					.884
Die Vermieter auf Airbnb sind verlässlich.	cPeIN1	*Gefen/ Straub* (2004)	5.066	1.104	
Die Vermieter auf Airbnb sind ehrlich.	cPeIN2		4.989	1.090	
Die Vermieter auf Airbnb halten sich an Ihr Wort.	cPeIN3		5.088	.996	
Trust in providing peer's benevolence					.697
Die Vermieter auf Airbnb berücksichtigen auch meine Interessen.	cPeBE1	*Gefen/ Straub* (2004)	4.736	1.298	
Die Vermieter auf Airbnb wollen mir nichts Schlechtes.	cPeBE2		5.418	1.096	
Die Vermieter auf Airbnb meinen es im Prinzip immer gut mit mir.	cPeBE3		5.022	1.174	
Trust in platform's ability					.877
Airbnb ist kompetent im Umgang mit Mietern.	cPlAB1	*Lu et al.* (2010)	5.297	1.005	
Airbnb ist fähig meine Anforderungen als Mieter zu erfüllen.	cPlAB2		5.429	1.127	
Airbnb ist qualifiziert mir einen guten Service für das Mieten von Unterkünften anzubieten.	cPlAB3		5.429	1.156	
Trust in platform's integrity					.801
Die Angaben von Airbnb sind verlässlich.	cPlIN1	*Lu et al.* (2010)	5.121	1.094	
Airbnb ist ehrlich im Umgang mit meinen privaten Daten.	cPlIN2		4.659	1.276	
Airbnb erbringt zugesagte Leistungen tatsächlich.	cPlIN3		5.176	1.160	
Trust in platform's benevolence					.795
Airbnb berücksichtigt die Interessen der Mieter.	cPlBE1	*Lu et al.* (2010)	5.374	1.061	
Airbnb will den Mietern nichts Schlechtes.	cPlBE2		5.692	1.171	
Airbnb hat gegenüber den Mietern keine schlechten Absichten.	cPlBE3		5.714	1.047	
Trust in product's ability					.789
Die Unterkünfte auf Airbnb sind für meine Zwecke gut geeignet.	cPrAB1	*Plank et al.* (1999)	5.648	1.129	
Bei den Unterkünften auf Airbnb erlebt man keine Überraschungen.	cPrAB2		4.582	1.326	
Die Unterkünfte auf Airbnb erfüllen meine Anforderungen.	cPrAB3		5.593	.977	
Consuming intention					.904
Ich würde es in Betracht ziehen Unterkünfte auf Airbnb zu mieten.	cINT1	*Lu et al.* (2010)	5.088	.985	
Es ist wahrscheinlich, dass ich tatsächlich Unterkünfte auf Airbnb mieten werde.	cINT2		4.758	1.186	
Ich würde beabsichtigen Unterkünfte auf Airbnb zu mieten.	cINT3		4.791	1.080	

Table A-2: German construct items, and descriptive statistics (consumer perspective)

Item (German)	*Code*	*Adap. from*	*Mean*	*Stand. Dev.*	*Cron. alpha*
Supplier perspective					
Trust in consuming peer's ability					.812
Die Mieter auf Airbnb sind kompetent.	sPeAB1	*Gefen/ Straub* (2004)	2.769	2.604	
Die Mieter auf Airbnb sind fähig.	sPeAB2		3.044	2.670	
Die Mieter auf Airbnb sind qualifiziert.	sPeAB3		2.615	2.585	
Trust in consuming peer's integrity					.828
Die Mieter auf Airbnb sind verlässlich.	sPeIN1	*Gefen/ Straub* (2004)	3.681	2.394	
Die Mieter auf Airbnb sind ehrlich.	sPeIN2		3.275	2.638	
Die Mieter auf Airbnb halten sich an Ihr Wort.	sPeIN3		3.560	2.491	
Trust in consuming peer's benevolence					.709
Die Mieter auf Airbnb berücksichtigen auch meine Interessen.	sPeBE1	*Gefen/ Straub* (2004)	3.538	2.410	
Die Mieter auf Airbnb wollen mir nichts Schlechtes.	sPeBE2		4.549	2.301	
Die Mieter auf Airbnb meinen es im Prinzip immer gut mit mir.	sPeBE3		3.681	2.371	
Trust in platform's ability					.824
Airbnb ist kompetent im Umgang mit Vermietern.	sPlAB1	*Lu et al.* (2010)	5.275	.990	
Airbnb ist fähig meine Anforderungen als Vermieter zu erfüllen.	sPlAB2		5.319	1.010	
Airbnb ist qualifiziert mir einen guten Service für die Vermietung anzubieten.	sPlAB3		5.319	1.124	
Trust in platform's integrity					.710
Die Angaben von Airbnb sind verlässlich.	sPlIN1	*Lu et al.* (2010)	5.319	1.094	
Airbnb ist ehrlich im Umgang mit meinen privaten Daten.	sPlIN2		4.791	1.287	
Airbnb erbringt zugesagte Leistungen tatsächlich.	sPlIN3		5.363	.983	
Trust in platform's benevolence					.829
Airbnb berücksichtigt die Interessen der Vermieter.	sPlBE1	*Lu et al.* (2010)	5.176	1.101	
Airbnb will den Vermietern nichts Schlechtes.	sPlBE2		5.802	.980	
Airbnb hat gegenüber den Vermietern keine schlechten Absichten.	sPlBE3		5.670	1.126	
Supplying intention					.926
Ich würde es in Betracht ziehen meine Wohnung/mein Zimmer auf Airbnb zu vermieten.	sINT1	*Lu et al.* (2010)	4.011	1.354	
Es ist wahrscheinlich, dass ich meine Wohnung/mein Zimmer tatsächlich auf Airbnb vermieten werde.	sINT2		3.374	1.339	
Ich würde beabsichtigen meine Wohnung/mein Zimmer auf zu Airbnb vermieten.	sINT3		3.593	1.358	

Table B-2: German construct items, and descriptive statistics (supplier perspective)

Factors	*1*	*2*	*3*	*4*	*Comm.*	*Uniq.*
cPeIN3	.829	.002	.151	-.094	.748	.2523
cPeIN2	.827	-.051	.000	.087	.720	.2801
cPeAB2	.801	.074	-.045	.094	.758	.2424
cPeBE1	.785	-.009	-.010	-.048	.570	.4303
cPeIN1	.779	-.061	.165	-.068	.646	.3536
cPeAB3	.672	.201	-.152	.056	.572	.4277
cPeAB1	.669	.067	-.094	.174	.588	.4120
cINT1	-.099	.911	.055	.003	.797	.2029
cINT2	.073	.893	-.046	-.016	.817	.1834
cINT3	.117	.701	.127	.047	.732	.2677
cPrAB1	.006	.039	1.074	.011	1.204	-.2040
cPrAB3	.124	.046	.605	.156	.583	.4172
cPlBE3	-.003	-.010	.030	1.027	1.062	-.0622
cPlBE2	.050	.042	.018	.650	.491	.5088
Prop. Var.	.317	.169	.126	.123		
Cumu. Var.	.317	.486	.612	.735		

Table C: Exploratory factor analysis with oblimin rotation (consumer perspective)

Factors	*1*	*2*	*3*	*4*	*Comm.*	*Uniq.*
sPlAB1	.865	-.005	-.064	-.009	.697	.303
sPlAB3	.811	-.119	.121	-.165	.649	.351
sPlBE1	.723	.047	.034	.140	.647	.353
sPlAB2	.651	.098	.020	.195	.603	.397
sPlIN2	.605	.153	.175	-.213	.558	.442
sPlIN3	.581	.070	-.063	.334	.552	.448
sPlBE3	.561	.180	-.130	.133	.416	.584
sPlIN1	.523	.189	.139	.082	.521	.479
sINT2	.098	.913	.011	-.140	.889	.111
sINT3	.026	.907	.037	-.024	.860	.140
sINT1	-.101	.855	.015	.183	.760	.240
sPeAB2	.063	.001	.796	-.055	.668	.332
sPeAB3	-.067	.030	.743	.027	.536	.464
sPeAB1	-.020	.049	.738	.102	.595	.405
sPeBE3	.154	.096	.230	.542	.537	.463
sPeBE2	.271	-.161	.213	.469	.430	.570
Prop. Var.	.256	.170	.131	.063		
Cumu. Var.	.256	.426	.557	.620		

Table D: Exploratory factor analysis with oblimin rotation (supplier perspective)