



# Is renting the new buying? A quantitative investigation of the determinants of the rental-commerce intention

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## ABSTRACT

In recent years, there has been a growing interest of consumers and retailers in rental-commerce. When engaging in rental-commerce, consumers pay a contractually agreed monthly price for the duration of use and can then use the product to its full extent. Since the rental-commerce model is still relatively new, so far little is known about the drivers and barriers leading consumers to rent products online rather than buying them. The results of our quantitative study (N = 689) show that while, surprisingly, knowledge of terms of use has no significant influence on the behavioral intention, sustainability, economic benefits, trust, safety, complexity, and knowledge of rental-commerce serve as predictors of the intention to rent products via a rental-commerce website. Thereby, the results of earlier studies have been largely proven and additional new findings and implications for both, theory and rental-commerce retailers, can be derived.

## ARTICLE HISTORY

Received 29 August 2019  
Accepted 3 September 2019

## KEYWORDS

Rental-commerce; sharing economy; E-commerce; consumer behavior; structural equation modelling

## Introduction

Nearly 20 years ago, Rifkin assumed that society was on its way to changing the relevance of possession. In his opinion, the importance of ownership for Western society was beginning to decline markedly, and he supposed that access to and use of objects would become more relevant than owning them (Rifkin 2001). One example of this growing trend are rental models, which are one way to participate in the sharing economy that will be considered more closely in this study. Referring to KPMG's Consumer Barometer (KPMG 2017), 43% of respondents are interested in renting products in the future. What is new, is that the increasing relevance of rental models and the associated use of unowned products is leading to changes in consumer behavior, especially concerning everyday items. In rental-commerce, consumer behavior is moving away from "traditional" forms of consumption under property law towards the alternative of "non-ownership" consumption via internet platforms. "Non-ownership" means that consumers are allowed to use a product but do not have property rights because the full rights (use and ownership) are reserved exclusively for the owner (Moeller and Wittkowski 2010).

The results of previous research have referred to a number of rental models and primarily addressed high-priced luxury products, conventional (i.e. not online

mediated) rental models, or non-commercial forms of sharing (e.g. Zervas, Proserpio, and Byers 2017; Bock et al. 2005). The renting of luxury products is usually limited to special occasions, like renting a wedding dress. Conventional rental models, such as car leasing, are usually connected to high rates and additional expenses (e.g. monthly costs), and non-commercial forms of sharing are often used among family and friends or have a specific social character, like food sharing to prevent food waste. Rental-commerce has a different character, and we have supposed that it might address different consumer needs, such as need for change or variety-seeking (e.g. trying new things for a special period of time), financial needs (e.g. spending less money), testing and trying (e.g. for consumers who are unsure if the product is really worth it), and social needs (e.g. for those who cannot afford certain products but also want to have the feeling of group belonging). With regard to theory, it is not clear what drives participation in rental-commerce. According to the property rights theory, experiencing the product is more important to the consumer than owning it (Baumeister, Scherer, and Wangenheim 2015; Furubotn and Pejovich 1972), which might drive consumers to engage in renting products rather than buying them. However, in contrast, both the theory of perceived ownership and the endowment effect imply that consumers develop feelings towards an object, resulting in emotions that impact their behavioral intentions (Pierce, Kostova, and Dirks 2001; Thaler 1980). Here, we see a gap in the literature: while these contrasting theoretical concepts seem to play a role, to our knowledge, no study has discussed these central points concerning rental-commerce.

Therefore, we have addressed following research questions: (1) What determinants are relevant in driving inexperienced consumers' behavioral intentions to participate in rental-commerce? (2) Which drivers are most important in influencing behavioral intentions? To answer these questions, we based our study on well-established determinants from literature. Hereby, we can contribute to a more holistic understanding of the motivations by respecting the relevant drivers of a novel branch within the sharing economy.

## **The concept of rental-commerce**

To the best of our knowledge, rental-commerce – as a specific type of business model in the sharing economy – has not yet been generally defined. Nevertheless, a number of studies have dealt with e.g. access-based services, sharing or co-owning and collaborative consumption, which offer an access to the topic, presenting alternative forms of consumption in which consumers gain access to products or services and use them conjointly without a transfer of ownership (e.g. Benoit et al. 2017; Lawson et al. 2016). While commercial retailers charge a fee for the temporary use of products, in rental-commerce, consumers enter into a tenancy agreement for the period of use. According to Belk (2009), these forms of consumption have a second common feature, as well: a dependence on information and communication technologies to enable access to products or services.

To understand the differences between the alternative consumption forms, the following provides a very short overview of the most important types of related consumption forms before concentrating on rental-commerce:

Access-based business models such as Car2Go or DriveNOW differ from traditional renting, as they are market-mediated and digitally processed (Botsman and Rogers 2010) and provide consumers with limited access to products in return for an access fee, while the legal ownership remains with the service retailer (Schaefer, Lawson, and Kukar-Kinney 2015). They are often web-based and/or app-based, short-term rental models for high-priced products. Sharing or co-owning is often between two or more individuals and is mediated through social mechanisms. These forms do not imply ownership transfer or shared ownership, which leads to simultaneous or sequential use (Benoit et al. 2017). Furthermore, collaborative consumption focuses on special websites, primarily in peer-to-peer sharing, with shorter periods of agreed consumption in which resources are consumed jointly and sustainably (e.g. Böcker and Meelen 2017; Hamari, Sjöklint, and Ukkonen 2016).

In contrast, the rental-commerce business model concentrates on economic motives by operating “pseudo-sharing” (Hawlitschek, Teubner, and Gimpel 2016). Compared to traditional sharing models, pseudo-sharing does not describe traditional sharing in the original sense, where the focus is on joint benefit. Rather, it is on a profitable business relationship. Consumers do not share a product at the same time but use it one after the other, concentrating on their own needs’ satisfaction and not on collaborative usage. Economic aspects, such as money saving, have primary relevance, while the feeling of being part of a community and of consuming resources sustainably is of less importance (Belk 2014). Concerning rental-commerce, there are two actors: the retailer and the consumers. For the latter, there is no transfer of ownership but, rather, a fixed period of agreed consumption time, wherein the phenomenon is predominantly mediated through market mechanisms instead of social mechanisms as in the sharing or co-owning environment (Benoit et al. 2017).

When engaging in rental-commerce, consumers pay a contractually-agreed price for the duration of use and can then use the product to its full extent. The consumers can determine the rental period themselves, usually under the condition of a minimum rental period specified by the retailer. The contact between consumers and retailer take place via information and communication technology websites, either directly between the retailer and the consumer or through a third-party-run online website. However, as the concept of rental-commerce is relatively new, there is a lot of uncertainty among consumers, regarding their rights and obligations, which might also lead to an increasing possibility of perceived risks. Aside from certain benefits (e.g. economic reward), they must also face perceived costs – including privacy and security risks and the risk of quality flaws like poor hygiene, traces of usage, and health issues – that might influence their intentions to participate (Lee et al. 2016). One reason for this is that products offered by rental-commerce retailer are often of an intimate nature, e.g. clothing, electronics, or durable household goods. Hence, forms of consumption like rental-commerce require higher trust and a higher tolerance of risk compared to traditional buying processes (Santana and Parigi 2015).

Summarizing the differences between the rental-commerce model and other alternative forms of consumption in the sharing economy, rental-commerce does not differ in its entirety from other sharing models but, rather, represents a branch of them. To distinguish this concept, the following characteristics are considered specific to rental-commerce: (1) the rental offers are offered by retailers to consumers (B2C); (2) rental-

commerce takes place via digital websites; (3) rental-commerce involves renting consumer products for everyday use that are used several times over a longer period of time, such as refrigerators, mobile phones, and clothing; (4) retailers may offer a purchase option at the end of the rental period; (5) there is no ‘community spirit’ involved; and (6) websites usually rent different types of products.

As Lawson et al. (2016) stated, social status, flexibility, trying different things, variety-seeking, and loyalty are factors that explain why consumers select rental models, while greed and materialism were identified as factors that lead to an aversion to rental models. Other motives to take part in this business model can be ‘economic’, ‘ecological’, and ‘social’ (Böcker and Meelen 2017).

### Conceptual background and hypotheses

This study’s conceptual model is presented in Figure 1. Based on the property rights theory, the theory of perceived ownership, and the endowment effect, we investigated inexperienced consumers’ perceptions in the environment of rental-commerce websites and postulated that feelings of ownership influence the perception of different determinants and thus build the basis for consumers’ behavior.

Frequent use of an object increases the value of the perceived property (Peck and Shu 2009). In rental-commerce, the consumers receive exclusive rights and control over the rented property. Peck and Shu (2009) suggested that the development of feelings of ownership can even arise from the mere idea that something belongs to the consumers. They examined how psychological property develops when there are no points of contact with the object. This is an interesting factor in the context of rental-commerce, as it is obviously possible for consumers to already develop feelings of ownership during the ordering process through photos or descriptions of the objects, without having seen them beforehand. Therefore, it might be difficult for consumers to return the product after the rental period, as they have developed emotions or feelings and perceive the return as a loss. The theory of perceived ownership, as well as earlier research and social practice, surmises that the sense of ownership is part of the human condition, that people develop feelings or emotions towards property objects, and that property feelings have a great influence on behavior on an emotional and psychological level (Pierce, Kostova, and Dirks 2001). Thus, we referred to this approach to explain the phenomenon of psychological ownership. Property can play a dominant role in an owner’s identity as a form of the extended ego (Belk 1988). It could be assumed that

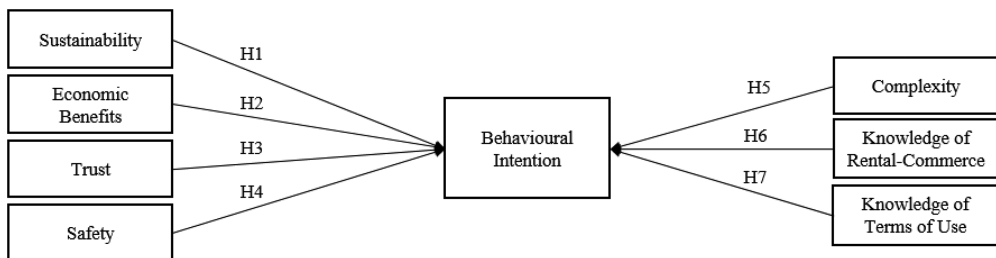


Figure 1. Theoretical framework.

consumers who participate in rental-commerce may also develop feelings of psychological ownership. In addition, the endowment effect refers to the phenomenon that people perceive the sale of property as a loss, while the increase in ownership is perceived as a gain (Thaler 1980). As a result, owners find it much harder to relinquish ownership than to buy new property, even if the sale could turn out to be profitable. Nevertheless, some studies show that it can also be attractive for consumers to resell their pre-owned property online in order to earn money, despite the loss of ownership (e.g. Ertz, Durif, and Arcand 2018). Another consequence is that people usually charge a higher price when selling their property than they would be willing to spend on the same property if it was not their own (Thaler 1980).

The property rights theory contradicts this approach: as in rental-commerce, the consumers use a product but does not own the product, and only the right of use is transferred to the consumers while the full rights (use and ownership) are reserved exclusively for the owner (Moeller and Wittkowski 2010). According to the property rights theory, products represent bundles of property and disposal rights. This is particularly suitable for understanding the relationship and value of property-free and proprietary consumption and describes the rights of both: owners and non-owners (Alchian and Demsetz 1973). The key message of the property rights theory is that the value of a product is determined not only by its nature but also, above all, by what it is used for (Furubotn and Pejovich 1972). The experience of a product is of central importance. This leads to the assumption that ownership by itself has no predominant significance and that alternative forms of consumption may be preferred due to the increasing importance of usage relevance. However, consumers identify with their property and regard it as part of their personality (Baumeister, Scherer, and Wangenheim 2015). Property does not just fulfill functional features. Consumers communicate and interact through their property in their social environment. Additionally, it plays an essential role in the perception of quality of life (Chen 2009) and creates a relationship between the object and the owner on a personal level. Therefore, property has a personal function, and its loss would be a major threat to the individual's self-identity (Ferraro et al. 2011). However, rental objects offer a special consumption possibility to experience a product, and the option to buy gives consumers the option of self-identity at the end of the term. Another approach is the context of the traditional consumer property form in which "property" is often reported as a burden of ownership, while a rental model reduces this burden on the consumers (e.g. Moeller and Wittkowski 2010).

In order to answer this study's research questions, a number of hypotheses were proposed, based on a literature review. According to Leismann et al. (2013), economically effective use of natural resources is important in order to generate wealth in the future. Thus, through the repeated use of products, sharing concepts can generally prove to be an environmentally friendly and sustainable form of consumption, as the use of a product is maximized (Lawson et al. 2016). In addition, unlike private property, these solutions almost always have a positive impact on the environment (Möhlmann 2015). Following Luchs et al. (2011), different online websites attempt to promote the concept of sustainable consumption in regard to the 'environmental, social and economic consequences of consumption'. Since the products offered on rental-commerce websites are not used only once but several times by different consumers, it could be

argued that the usage of these products will be maximized, leading to a higher sustainability and reducing the likelihood of products (such as children's clothing) being thrown away or destroyed after a certain period of time. Since Hamari, Sjöklint, and Ukkonen (2016) found that sustainability is an important factor in collaborative consumption, we therefore hypothesize that perceived sustainability influences consumers' behavioral intentions towards rental-commerce.

*H1. Perceived sustainability has a positive effect on the intention to rent products.*

Rental-commerce is not only assumed to have a sustainable aspect but also an economical one. According to Hamari, Sjöklint, and Ukkonen (2016), the sharing economy can offer economic benefits for consumers. Past studies on collaborative consumption have confirmed this assumption, as they have discovered that financial benefits are the key to motivate peer-to-peer sharing (Tussyadiah 2015). Renting products can be cheaper than buying them, so people can afford more expensive products when using rental-commerce. Therefore, participation in sharing can also be a rational, use-maximizing behavior in which the consumers replace the exclusive ownership of products with the cheaper options of a rental-commerce retailer (Hamari, Sjöklint, and Ukkonen 2016). Socio-economic factors such as income have an influence on how much a consumer is willing to pay, assuming that the monetary incentive of a low monthly rent could be a driver for rental-commerce (Silva, Von Hausen, and Higgins 2019). Kim, Ferrin, and Rao (2008) defined the perceived benefits in terms of online shopping, but the definition can also be specifically applied to the economic benefits of rental-commerce by the extent to which the consumers believe that they will benefit financially from an online transaction with a particular rental-commerce company. By eliminating fixed costs like the purchase price, costs can be reduced in rental-commerce in context of the consumers' benefit (Demary 2015). They also gain more time and energy because they no longer need to spend much time on considerations (e.g. in the form of product and dealer comparisons). The more economic benefits (and thus advantages) consumers perceive for themselves with a rental-commerce website, the more willing they are to enter into online transactions. Therefore, we assumed:

*H2. Perceived economic benefits have a positive effect on the intention to rent products online.*

Research on online shopping has shown that trust is an important influence factor on consumer behavior. For example, if the consumers decide to buy from an online retailer, they have confidence in the retailer and its website as well as in the internet transactions. Consequently, they trust that the company is honest with them and that it deals with high quality products (Flavián, Guinalú, and Gurrea 2006). At the same time, trust in the website often represents a proxy for trust in the online retailer (Mukherjee and Nath 2007). Trust is a multidimensional model in the field of information and communication technology. Consequently, there are different types and forms of trust, e.g. disposition to trust, institution-based trust, and trusting intentions, which influence consumers' trust-related behavior in e-commerce (McKnight, Choudhury, and Kacmar 2002). According to Suh and Han (2003), a website that creates trust can improve the

behavioral intentions towards shopping on it. Verhagen, Meents, and Tan (2006) also assumed that trust in the seller influences an individual's attitude towards internet commerce, which also showed that repurchase intentions are significantly increased by trust in the vendor (Fang et al. 2014). Adapting these e-commerce results to rental-commerce leads to the assumption that behavioral intentions to participate in rental-commerce depend on trust in the retailer. Other studies have also assumed that the intention to buy (e.g. from an online retailer) is influenced by trust (e.g. Liu et al. 2005). Therefore, we hypothesized:

*H3. Perceived trust has a positive effect on the intention to rent products online.*

As a new economic model form, rental-commerce still offers consumers many uncertainties and risks compared to physical shopping and renting in a brick-and-mortar store, as rental-commerce companies are not yet widespread. In contrast to physical shopping or renting, consumers cannot check the quality of a product, the functionality, the handling of their data, or the safety precautions before placing an order. Especially when doing rental-commerce, there may be huge insecurity concerning traces of usage. Thus, the consumers do not know what to expect from the retailer (Lee and Turban 2001). In addition, there is no physical interaction with the seller, since rental-commerce takes place exclusively via the internet. Therefore, the consumers are not in a position to effectively evaluate the offered products or to verify the identity of the rental-commerce retailer. As a result, and also due to possible hacker attacks and viruses, there is the possibility of fraud and misuse of consumers' data (Flavián, Guinalíu, and Gurrea 2006). As internet purchases are perceived as riskier than physical purchases, consumers need even more certainty from companies that they are protected from such threats (Kassim and Asiah Abdullah 2010). It must be ensured that these promises and intentions are transferred into reality (Flavián, Guinalíu, and Gurrea 2006). In rental-commerce, it is not only about the private data and the payment methods but also about the quality of the product and the conditions to return it. This is especially important because the products will be used and then returned, so there may be high uncertainty concerning the return conditions. This shows that safety is an important factor in the relationship between companies and consumers, which is why we hypothesized the following:

*H4. Perceived safety has a positive effect on the intention to rent products online.*

Complexity shows the degree to which an innovation, like a new technology or business model, is perceived to be difficult to use and requires a high level of effort to be performed (Rogers and Shoemaker 1971). For many consumers, rental-commerce still seems very complex and not sufficiently transparent, raising questions about return policies, security aspects, and the process itself. However, previous research has shown that, in general, the more complexity there is, the more potential disadvantages there might be for consumers (e.g. Cheung, Chang, and Lai 2000). According to Nieschlag, Dichtl, and Hörschgen (1997), the higher the perceived risk via the internet, the more consumers tend to shop in stationary retail outlets. This could ultimately be due to the negatively-perceived complexity. It is also questionable whether the rented services in rental-commerce are apparent to consumers. Finally, several studies have already

investigated the negative influence of increased complexity on the use of information technology, the intention to make purchases, and the adoption of a 'green consumerism' (e.g. Teo, Lim, and Lai 1999; Thompson, Higgins, and Howell 1991).

*H5. Perceived complexity has a negative effect on the intention to rent products online.*

As experience bundles the already-accumulated knowledge of something, the experience value is used as a popular parameter to map consumers' knowledge. Alba and Hutchinson (1987) stated that experience with a brand results from the knowledge and familiarity of the consumers with this brand category. Consumers who have had positive experiences with shopping on the internet and who have tried new technologies and ways of shopping tend to buy online more often, as they estimate the perceived risks to be lower compared to those who have not yet gained experience with internet shopping (Miyazaki and Fernandez 2001). Many years of experience with online shops increase consumers' self-confidence and leads them to use their previous knowledge to reduce any uncertainties (Bhatnagar and Ghose 2004). Further research also demonstrated that knowledge about a particular brand or product has a direct positive effect on the intention to buy from an online retailer (e.g. Chen and He 2003). Thus, it can be assumed that, similar to knowledge about brands and products, higher knowledge about a new technology or business model (like rental-commerce) may increase the intention to use and buy from the online retailers.

In addition, consumers' knowledge of terms of use is particularly influenced by the information content of the rental-commerce website. Consumers evaluate their purchasing decisions on the basis of how strong the information quality of the online store is and how well they know that their privacy and data are protected by the online store (e.g. Kim, Ferrin, and Rao 2008). It is of great importance for consumers to know exactly what happens to their personal data and payment information. The online store must be able to assure consumers that their information will not be passed on to third parties and that there is a high quality of information service (Park and Kim 2003). This so-called assurance to consumers by the online store acts as the consumers' knowledge of what is happening with their information and influences their loyalty and buying behavior (Sarkar 2011). Wang, Lee, and Wang (1998) also found that buying behavior on the internet is influenced by the extent to which the information transparency of online shops is used to create a consumer-oriented knowledge system. As such, the exchange of communication and subsequent transfer of knowledge play an important role in the purchasing decision of unsettled consumers in particular (e.g. Bhatnagar and Ghose 2004). Therefore, it can be assumed that consumers' knowledge of terms of use in rental-commerce has a positive influence on their intentions to rent online. We thus supposed:

*H6. Knowledge of rental-commerce has a positive influence on the intention to rent products online.*

*H7. Knowledge of terms of use has a positive influence on the intention to rent products online.*



## Empirical study

### *Procedure and sample*

To test the hypotheses, we conducted a quantitative study in Germany. Before our main study, we conducted a pretest ( $N = 30$ ) to make sure that the questionnaire is understandable and to check for interesting results. Afterwards, we generated data for our main study via an online questionnaire, which was distributed via e-mail and social networks to potential respondents. Before analysing the data, data sets of all participants with an unreasonable short processing time have been eliminated, because this indicated little engaged behaviour with regard to reading and answering all questions. Furthermore, plausibility checks were conducted, e.g. data of those participants whose answers contain variances of zero among all items have been eliminated. In addition, since this study investigates the intention to use rental-commerce, we only included inexperienced users. After this procedure, we obtained a data set of  $N = 652$  participants in total, of which were 63,3% female ( $M_{\text{age}} = 29.51$  years,  $SD = 12.13$ ).

### *Adaptation and development of measures*

While we mainly relied on well-established, reflective multi-item scales from previous studies that we identified and modified to fit the context of our study, all constructs were measured via seven-point Likert scales. We adapted Bhattacharjee's (2001) scale of collaborative consumption behavioural intention, that consists of four items, to the context of our study, (e.g. 'All things considered, I expect to continue with rental-commerce in the future.',  $\alpha = .95$ ). Following Bock et al. (2005), perceived economic benefits were measured (e.g. 'I can save money if I participate in rental-commerce.',  $\alpha = .87$ ). The approach of Wolfenbarger and Gilly (2003) was used to measure safety (e.g. 'I feel like my privacy is protected on a rental-commerce website.'  $\alpha = .86$ ). The approaches of Chai et al. (2015) and Bhattacharjee (2002) were used to measure trust (e.g. 'Overall, rental-commerce is trustworthy.',  $\alpha = .79$ ). Knowledge of rental-commerce was adapted from Flynn et al. (1996) to our context (e.g. 'I know pretty much about rental-commerce.',  $\alpha = .71$ ), as well as perceived sustainability (e.g. 'Rental-commerce helps save natural resources.',  $\alpha = .93$ ) and perceived complexity (e.g. 'Rental-commerce websites are complicated, it is difficult to understand what is going on.',  $\alpha = .87$ ), both of which were measured using a four-item scale (Cheung, Chang, and Lai 2000; Hamari, Sjöklint, and Ukkonen 2016). Furthermore, a three-item scale was used to measure knowledge of terms of use (e.g. 'I know my rights and obligations when participating in rental-commerce.'  $\alpha = .92$ ) (Bart et al. 2005; Wolfenbarger and Gilly 2003). We assessed the reflective indicators' unidimensionality using exploratory factor analysis as well as measured the models' internal consistencies. In addition, we suppose that multicollinearity is not a problem, since variance inflation factors (VIF) were tested, showing all a measurement below the recommended threshold of 10 for all constructs (Hair, Ringle, and Sarstedt 2011). Also, high levels of scale consistency can be observed since the average variance extracted (AVE not less than .67 for all reflective scales) as well as Cronbach's Alpha of .86 and above and composite reliability (CR) of .91 and above are all satisfactory (see Table 1). In addition, by applying Fornell and Larcker (1981) criterion, we

**Table 1.** Items and Outer Loadings.

	Outer Loadings
Reflective instruments (7-point Likert scale: 1 = strongly disagree, 7 = strongly agree)	
<i>Behavioral Intention</i> (Bhattacharjee 2001) ( $\alpha = .955$ , CR = .967, AVE = .881)	
All things considered, I expect to continue with rental-commerce often in the future.	.957
I can see myself engaging in rental-commerce more frequently in the future.	.948
I can see myself increasing my rental-commerce activities if possible.	.901
It is likely that I will frequently participate in rental-commerce in the future.	.946
<i>Sustainability</i> (Hamari et al. 2016) ( $\alpha = .937$ , CR = .955, AVE = .841)	
Rental-commerce helps save natural resources.	.914
Rental-commerce is a sustainable mode of consumption.	.910
Rental-commerce is ecological.	.931
Rental-commerce is environmentally friendly.	.913
<i>Economic Benefits</i> (Bock et al. 2005) ( $\alpha = .888$ , CR = .930, AVE = .817)	
I can save money if I participate in rental-commerce.	.902
My participation in rental-commerce benefits me financially.	.938
My participation in rental-commerce can improve my economic situation.	.870
<i>Trust</i> (Chai et al. 2015; Bhattacharjee 2002) ( $\alpha = .875$ , CR = .909, AVE = .668)	
I trust that the offered rental-commerce products will be displayed as expected.	.790
The providers of rental-commerce websites are truthful.	.792
I trust that the rental-commerce provider provides enough safeguards to protect me from liability for damage I am not responsible for.	.820
Rental-commerce websites provide a robust and safe environment in which I can use the service.	.840
Overall, rental-commerce is trustworthy.	.842
<i>Safety</i> (Wolfenbarger and Gilly 2003) ( $\alpha = .863$ , CR = .916, AVE = .784)	
I feel like my privacy is protected at rental-commerce websites.	.894
I feel safe in my transactions with rental-commerce websites.	.900
Rental-commerce websites have adequate security features.	.862
<i>Complexity</i> (Cheung, Chang, and Lai 2000) ( $\alpha = .878$ , CR = .916, AVE = .732)	
The participation in rental-commerce websites is complicated; it is difficult to understand what is going on.	.895
The participation in rental-commerce websites involves too much time.	.812
It takes too long to learn how to participate in rental-commerce websites to make it worth the effort.	.864
In general, rental-commerce websites are very complex to use.	.849
<i>Knowledge of Rental-Commerce</i> (Flynn et al. 1996) ( $\alpha = .905$ , CR = .927, AVE = .681)	
I feel quite knowledgeable about rental-commerce.	.861
Among my circle of friends, I'm one of the experts for renting products on a rental-commerce website.	.818
I know pretty much about rental-commerce.	.879
I do feel very knowledgeable about rental-commerce.	.846
When it comes to rental-commerce, I really don't know a lot. ( <i>r</i> )	.711
I have heard of most of the new offers from rental-commerce websites that are around.	.820
<i>Knowledge of Terms of Use</i> (Bart et al. 2005) ( $\alpha = .920$ , CR = .949, AVE = .861)	
I know my rights and obligations when participating in rental-commerce websites.	.943
My knowledge of my rights and obligations when participating in rental-commerce websites is very great.	.930
My knowledge of my legal claims and obligations when participating in rental-commerce websites is above average.	.912

assessed all reflective scales for discriminant validity, indicating that discriminant validity should not be a problem, because no construct shares more variance with any other construct than with its own indicators.

## Method

To test our hypotheses, we used partial least squares (PLS) structural equation modeling, since the reason for a PLS method is based on the consideration that the research objective is prediction. Model fit criteria with SRMR = .050 and NFI = .877 indicate adequate model specification (Dijkstra and Henseler 2015).

To prevent common method bias, which might occur since evaluation and outcome measures were answered by the same person, a marker variable was included as a latent variable that directly affected the other variables in the model but was conceptually independent from the other variables in the questionnaire (Podsakoff et al. 2003). It can be confirmed that the model with the marker variable shows consistent results compared to the model without the marker variable.

## Results, discussion and implications

The  $R^2$  (adjusted  $R^2$ ) of the dependent variables reports a value of .348 (.341), and the  $Q^2$  reports a value of 0.280, indicating an adequate model specification, as results of .20 and above for  $R^2$  and results larger than 0 for  $Q^2$  are already considered high in the field of consumer behavior research (Hair, Ringle, and Sarstedt 2011).

The results confirmed most of the predicted hypotheses. In regard to the first research question, perceived sustainability (H1), perceived economic benefits (H2), trust (H3), perceived safety (H4), and knowledge of rental-commerce (H6) positively influenced behavioral intentions, while perceived complexity (H5) negatively influenced behavioral intentions. Contrary to previous assumptions (Kim, Ferrin, and Rao 2008), H7, knowledge of terms of use, must be rejected since there is no impact on the intention to use rental-commerce (see Table 2). To answer the second research question, it can be observed that perceived economic benefits especially influenced the rental-commerce intentions the most, followed by trust, complexity, and knowledge of rental-commerce.

In line with previous assumptions (Lawson et al. 2016; Luchs et al. 2011), sustainability (H1) is a motive to participate in rental-commerce (e.g. by hoping to reduce economical waste). Further studies could examine whether the sustainability aspect varies for certain products or depends on the product category offered by the online retailer. Additionally, we observed a positive effect of perceived economic benefits on the behavioral intention in our data. Following previous studies (Hamari, Sjöklint, and Ukkonen 2016; Demary 2015), H2 can be confirmed. When participating in rental-commerce, lower amounts have to be paid compared to a purchase, which consumers perceive as a financial benefit and motivational factor (Tussyadiah 2015). In this moment, this is more important to them than owning the product. Therefore, the monthly installments are less significant than the total purchase price. If products are only wanted for a trial or only needed for a short period of time, the financial benefits cannot be denied. Moreover, H3 can be confirmed, verifying earlier studies (e.g. Liu et al. 2005; Cheung,

**Table 2.** Results.

	Stand. Coef.	T-Statistic	VIF
Sustainability → BI	.100**	2.424	1.520
Economic Benefits → BI	.290***	6.925	1.460
Trust → BI	.165**	3.499	1.801
Safety → BI	.110*	2.085	1.819
Complexity → BI	-.150***	4.383	1.091
Knowledge of Rental-Commerce → BI	.146***	3.581	1.434
Knowledge of Terms of Use → BI	.074 <sup>ns</sup>	1.786	1.428

Note: BI = behavioral intention; N = 652; PLS algorithm: maximum iterations = 300; bootstrapping procedure: cases 652; Samples = 5,000; \*significant at  $p < .05$ ; \*\*significant at  $p < 0.01$ ; \*\*\*significant at  $p < .001$ ; ns = not significant.

Chang, and Lai 2000). Thus, trust (e.g. about the quality of the products or the reliability of the retailer) has a significant impact on the behavioral intention. One reason for this might be that consumers know that the products could have been rented by other users before and maybe face the risks of quality flaws or poor hygiene, so they evaluate trust building as more relevant and must rely on a certain quality standard being maintained. As Lee and Turban (2001) demonstrated, it is important to feel safe regarding products and data. As with traditional internet purchases, where consumers need security in the settlement process (Kassim and Asiah Abdullah 2010), safety's influence as assumed in H4 can be confirmed and is an important driver of rental-commerce. If consumers feel safe, they are more likely to take part in rental-commerce, and this is an especially critical factor for retailers, which should be even more careful in demonstrating a high level of transparency in terms of parameters such as data, payment, settlement, return, and quality. For this purpose, quality seals and the representation of real and satisfied consumer experiences should be placed on their website. Regarding H5, the negative effect of complexity on the behavior intentions can be confirmed, too. The higher the perceived complexity of rental-commerce is, the lower users' intentions to use the rental-commerce website and rent products from the retailer (Thompson, Higgins, and Howell 1991). This effect can be explained by the fact that consumers would have to make a greater effort in order to achieve the desired goal, e.g. the rental of a product (Rogers and Shoemaker 1971). According to previous studies (e.g. Bhatnagar and Ghose 2004), hypothesis H6 can be confirmed, suggesting that a high level of knowledge about rental-commerce reinforces the intention to rent products on a rental-commerce website. As such, the more consumers seem to know about their own possibilities to participate in rental-commerce and therefore build a form of experience, the more likely they will buy on such a website. This confidence in one's own knowledge can be built up by visiting several rental-commerce websites with the same structure to establish some kind of familiarity (Laroche, Kim, and Zhou 1996). This positive correlation also demonstrates that the gained knowledge must be positive. Therefore, looking at both the negative influence of perceived complexity and the positive influence of knowledge of rental-commerce, it is recommended that rental-commerce website retailers should establish clear and transparent information structures and website designs. The consumers must experience the feeling of being well informed so that the intention to rent something from the retailer increases. A visual listing of all payment, shipping, and service options might consolidate this effect. Surprisingly, consumers' knowledge of terms of use seem to have no significant effect on the intentions to use rental-commerce websites, rejecting H7.

## Conclusion

E-Commerce experiences ongoing innovations that lead to more consumption possibilities and additional services for consumers (Wu and Hisa 2008). To increase the business consumers value in a retail environment continuously, retailers should, hence, extend their range of services with special offerings (Ney, Whitaker, and Zentes 2015), such as the possibility to rent products instead of buying them. So, rental-commerce is characterized by the fact that the basic scheme of the modern market system has changed. The focus is no longer on exchange, but on short-term access to property. In other

words, the focus is on the use of products, not ownership. In this case, the rental model increases the comfort of consumers by offering a certain flexibility in contrast to ownership. Consumer durables can be tested for a certain period of time without the risk of a 'bad' purchase. On the one hand, this further stimulates consumption, as consumers can now afford products that they would otherwise not be able to pay for. With the possibility of being able to afford products that would otherwise not be affordable, rental-commerce also reaches consumers who cannot or do not want to spend a certain amount of money on products, but also want to enjoy "new" devices for a certain period of time. On the other hand, there is an increase in logistics due to the permanent back and forth shipment of rented products, which additionally pollutes the environment.

Moreover, there is not always no or reduced risk in rental-commerce: One can get into financial difficulties during the rental period, not being able to pay the rental fee, or a case of damage or loss can occur, the costs of which must be borne. It is also possible that consumers rent a product but it does not provide the desired performance. In the worst case, the consumers are bound by a contractually agreed minimum rental period of several months for which they still have to pay the rental fee, even if the product is not used.

Not only for consumers, but also for some retailers, rental-commerce can generate extra revenue and thus, represent a lucrative, expanded business model. Retailers have the option, in addition to the traditional sale of products, to build a website extension for a side-activity to reach a new target group. Those consumers who feel insecure about buying and therefore choose to rent a product first, still might generate additional sales.

To answer the initial question ('Is renting the new buying?'), it could be argued that rental-commerce needs to be further developed and that inexperienced consumers need to be more informed that they can rent products online, as many consumers are unaware of this option. Based on the study's findings that general knowledge of rental-commerce promotes the intention to use rental-commerce websites, it could be assumed that the more informed consumers are, the more likely they will participate in rental-commerce. In the context of the property rights theory, other determinants, such as sustainability, economic benefits, trust, safety, and complexity, seem to contribute to the assumption that rental-commerce might be a substitute to buying. Particularly concerning variety-seeking and flexibility, renting seems to be a promising concept for consumers. However, with regard to the endowment effect and the theory of perceived ownership, the study's results contradicted this argument, showing that for some consumers, it is more important to possess products. Overall, based on the results, we suppose that rental-commerce websites will undergo further growth but will still constitute an add-on option to traditional purchases. Nevertheless, for certain product categories, renting might be more likely to become a substitute for buying in the future. Among fast-developing product categories like technology and electronics, it may be possible that consumers will tend to use rental options in the future rather than buy these products.

However, this study also has some limitations. Firstly, the sample was only collected in Germany. Therefore, future studies should also acquire representative participants from other countries since some studies in the field of collaborative consumption have

addressed the importance of cultural influences (e.g. Piscicelli, Cooper, and Fisher 2015). Furthermore, this study only includes participants who had not yet rented products on rental-commerce websites. Since, in this context, the experience and knowledge of the technical and organizational processes of the rental-commerce business model could provide an influence, a distinction between these two consumer groups would be recommended. Moreover, the product category might play a significant role, as for instance trust may be more important when renting a car than a board game.

## Disclosure statement

No potential conflict of interest was reported by the authors.

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