Collaborative consumption as C2C trading: Analyzing the effects of materialism and price consciousness

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Abstract

Our study aims to bring new critical knowledge on the two kinds of antecedents of collaborative consumption, namely materialism and price consciousness. We are especially interested in studying how materialism and price consciousness are related first, to consumers' attitudes towards collaborative consumption, and second, to their intentions to engage in such behavior. Furthermore, we approach

collaborative consumption as a mode of exchange that includes transfer of ownership, i.e. C2C trading. Five hypotheses were developed to be tested using structural equation modelling (SEM). Our sample consists of 752 Finnish consumers. Overall, our hypotheses are globally supported apart from the unexpected relationship between materialism and consumers' intentions to engage in collaborative consumption. Based on our findings, it seems that although collaborative consumption is perceived as unfavourable behaviour among materialistic consumers it is something that they are still ready to try in the future. Our study contributes the consumer research in general, and sharing economy and collaborative consumption literature in particular.

Keywords: collaborative consumption, materialism, price consciousness

Introduction and purpose

The emergence of the sharing economy has had a major impact on many industries and businesses worldwide (Cheng, 2016, Sundararajan, 2016; Narasimhan et al., 2018). According to a report conducted by PricewaterhouseCoopers (2015), five key sectors are particularly affected by this "sharing movement". These sectors are travel, car-sharing, finance, staffing, and music/video streaming. PricewaterhouseCoopers predicts that revenue in these five sectors of the sharing economy could reach \$335 billion by 2025. Furthermore, what is even more interesting is how the sharing economy has

changed people's perceptions of ownership and consumption practices (see e.g. Belk, 2014; Matzler et al., 2015; Cheng, 2016). Nowadays, there is a growing number of consumers who are more interested in to share rather than to own the products and services.

Perhaps the best-known form of sharing is collaborative consumption (see e.g. McArthur, 2015; Möhlmann, 2015). Botsman (2013) defines collaborative consumption as “an economic model that is based on sharing, swapping, trading, or renting products and services” (see also Botsman & Rogers, 2010). Belk (2014) argues that collaborative consumption refers to the acquisition and distribution of resources that occurs for a fee or other (non-monetary) compensation. As Belk (2014) argues, collaborative consumption occupies a middle ground between sharing and marketplace exchange, with elements of both. Hamari et al. (2016), in turn, state that collaborative consumption can be separated into two main categories of exchange: (i) access over ownership and (ii) transfer of ownership. This study, as developed in the empirical part, perceives the collaborative consumption as a mode of exchange that includes the transfer of ownership, i.e. C2C (consumer-to-consumer) trading. However, in its theoretical part the present study explores collaborative consumption more broadly in order to create a more comprehensive understanding of this emerging phenomena.

As a form of C2C trading, collaborative consumption is often facilitated by an external provider like an online platform (e.g. Möhlmann, 2015; Narasimhan et al., 2018). In fact, nowadays, there are several business ventures and startups that have boosted collaborative consumption to a meteoric growth by creating online-

based platforms or marketplaces (Martin, 2016; Hamari et al., 2016). For example, Airbnb, a marketplace of travel accommodation and a pioneer of the collaborative consumption, has served 60 million guests since it was founded in 2008 (see e.g. Matzler et al., 2015).

During the last few years a growing body of research has extended our knowledge of the popular movement of collaborative consumption. Within this evolving research area, there is a set of studies that have tried to specify the reasons for participation in collaborative consumption (see e.g. Hwang & Griffiths, 2016; McArthur, 2015; Möhlmann, 2015; Böcker & Meelen, 2017). Although there is an increasing number of studies that have focused on the antecedents of collaborative consumption, there still appears the need for further research. In particular, one very fundamental question is unclear at the moment. That is: can materialistic people also be inclined to engage in collaborative consumption? Belk (2010; see also 2007) has tackled this question theoretically, and argued that possessiveness and non-generosity as key components of materialism may inhibit sharing. However, at least to our knowledge, there is only one empirical study that has approached this question explicitly. In their study, Akbar et al. (2016) found evidence that materialism is a dominant inhibitor of consumers' willingness to take part in commercial sharing systems. Also, Ozanne and Ballantine (2010) came quite close to this question by studying whether a group of individuals who engage in sharing hold anti-consumption attitudes. Their study revealed four different groups that all had relatively low scores on the materialism scale. Durgee and O'Connor (1995), in turn, studied rental consumption, and found that rental consumption is driven by instrumental materialism instead of terminal

materialism. Although there already are some studies that tackle materialism in the collaborative consumption context, it can be argued that there is a lack of empirical evidence of the actual effects of materialism on collaborative consumption. Thus, further research is needed.

In this study we aim to explore how materialism is linked to C2C trading, i.e. collaborative consumption that includes transfer of ownership (named hereafter collaborative consumption). We are especially interested in to investigate the following two questions: do materialistic people perceive collaborative consumption as favorable or unfavorable behavior, and furthermore, to what extent materialistic people are willing to engage in such behavior in the future.

In addition to materialism, we also analyze how price consciousness is related to collaborative consumption. Whereas materialism can be seen as a factor that might lead to unfavorable perceptions of collaborative consumption and/or inhibit consumers' willingness to engage in such behavior (see e.g. Belk, 2007; 2010; Akbar et al., 2016), price consciousness, i.e. the degree to which the consumer focuses exclusively on paying low prices (Lichtenstein et al., 1988; Lichtenstein et al., 1993), can be seen as the one of the potential drivers of collaborative consumption (see e.g. Möhlmann, 2015; Hamari et al., 2016). However, at least to our knowledge, price consciousness has not been studied explicitly in previous studies in the context of collaborative consumption. Therefore, our study aims to bring new critical knowledge on the two kinds of

antecedents of collaborative consumption, namely materialism and price consciousness.

To be more specific, we focus on the following research questions:

1. How materialism is related to consumers' (a) attitudes towards collaborative consumption, and their (b) intentions to engage in collaborative consumption?
2. How price consciousness is related to consumers' (a) attitudes towards collaborative consumption, and their (b) intentions to engage in collaborative consumption?
3. How consumers' attitudes towards collaborative consumption are related to their intentions to engage in collaborative consumption?

The key constructs and their potential relationships are presented in our conceptual model (Figure 1). By studying these constructs and their potential relationships we aim to contribute the consumer research in general, and sharing economy and collaborative consumption literature in particular. Especially, our study aims to contribute to the stream of research on the antecedents of collaborative consumption that includes transfer of ownership.

Take in Figure 1 around here (Conceptual model of the present study)

Rest of the article is organized as follows: First, we review previous research related to sharing economy and collaborative consumption. We then develop

hypotheses about the effects of materialism and price consciousness on collaborative consumption attitudes and intentions (see Figure 1). Following this, we provide the details of our sample, measures and analysis. Using structural equation modelling (SEM), we test our hypotheses using a sample of 752 Finnish consumers. We conclude by discussing the implications for researchers and managers. We also discuss study limitations and opportunities for future research.

Theoretical background

Ownership and possession practices have traditionally dominated the debate on consumer behavior and consumption (Arsel, 2010; Bardhi & Eckhardt, 2012; Watkins et al., 2016; Lindblom & Lindblom, 2017). In fact, in many modern societies the concept of ownership is still very well rooted in consumers' minds, and for many ownership is something that they aim and work for. Ownership entitles consumers to use, control and convey what they have (see e.g. Gaus, 2012; Bardhi & Eckhardt, 2012; Moeller & Wittkowski, 2010). However, it has been argued that in today's postmodern society owning things has become outmoded idea. In fact, according to a report by PricewaterhouseCoopers (2015, p. 14), today, only one in two consumers agree with the statement "owning things is a good way to show my status in society."

Thus, it is not surprising that the movement of sharing is growing rapidly around the world, and nearly in every sector and industry (Cheng, 2016; Sundararajan, 2016; Narasimhan et al., 2018). Furthermore, this "movement" has had fundamental change in people's ways of thinking about ownership and consuming

(Belk, 2014; Narasimhan et al., 2018). Matzler et al. (2015, p. 71) highlight this change in people's minds and behavior, stating that "While individuals have traditionally often seen ownership as the most desirable way to have access to products, increasing numbers of consumers are paying to temporarily access or share products and services rather than buy or own them." In a similar vein, Bardhi and Eckhardt (2012) argue that consumers now want the access to products, and they prefer to pay for the experience of using the object rather than buy and own it (see also Watkins et al., 2016; Lindblom & Lindblom, 2017).

Belk (2007, p. 126) has defined sharing "as the act and process of distributing what is ours to others for their use and/or the act or process of receiving or taking something from others for our use". According to Bardhi and Eckhardt (2012) sharing is a mode of behavior that does not involve a transfer of ownership. Basically, anyone can share almost anything from material goods to time, ideas, skills and competencies. In practice, sharing can include, for instance, car-pooling, space-sharing, couch surfing, or voluntary borrowing.

Collaborative consumption is often defined as the most typical form of sharing. Collaborative consumption refers to sharing, swapping, trading, or renting products and services (Botsman, 2013; see also Hamari et al., 2016). Belk (2014), in turn, defines collaborative consumption as a behavior where people coordinate the acquisition and distribution of resources for a fee or other compensation. A key point in this Belk's (2014) definition is that collaborative consumption involves compensation. This feature distinguishes collaborative consumption for example from the gift giving. As Belk (2014) points out, collaborative consumption

is located in a middle ground between sharing and marketplace exchange, with having elements of both.

In their study Hamari et al. (2016) emphasize that collaborative consumption can be separated into two main categories of exchange:

- (i) access over ownership
- (ii) transfer of ownership.

According to Hamari et al. (2016), access over ownership is the most common mode of exchange in the context of collaborative consumption. One practical example of this kind of exchange is peer-to-peer renting (Hamari et al., 2016). Philip et al. (2015) define peer-to-peer renting as form of consumption whereby one individual makes available his or her physical possessions temporarily to another individual for a fee in order to meet the temporary needs of the renter without a transfer of ownership. The transfer of ownership, in turn, refers to the activity where ownership passes from one person to another through swapping, donating, and purchasing of primarily second-hand goods (Hamari et al., 2016). This kind of collaborative consumption that includes transfer of ownership is often being facilitated by an external provider like an online marketplace or platform (see e.g. Möhlmann, 2015).

As the collaborative consumption has become more and more popular around the world, there has emerged a set of studies that have tried to specify the reasons for participation in collaborative consumption (see Table 1). For example, Hwang and

Griffiths (2017) explored how the cognitive value perceptions and affective attitudes of millennial consumers are related to behavioral intent in the context of collaborative consumption, and how such relationships may be moderated. Böcker and Meelen (2017), in turn, investigated the relative importance of economic, social and environmental motivations to participate in collaborative consumption. One of their findings was that motivations to participate differ between socio-demographic groups, between users and providers, and especially between different types of shared goods. In their study, Hamari et al. (2016) found that people's participation in collaborative consumption is motivated by factors such as its sustainability, enjoyment of the activity as well as economic gains. McArthur (2015) showed that belonging to a community network, a political decision to buck the capitalist system and avoid exchanges for money, are the primary drivers for collaborative consumption. Möhlmann (2015) was able to clarify the role of different determinants of the satisfaction with sharing services and the likelihood of participating in collaborative consumption again. Her findings indicate that consumers are predominantly driven by rational reasons, serving their self-benefit, when engaging in collaborative consumption. Bardhi and Eckhart (2012), in turn, explored access-based consumption in the context of car sharing, and found that motivations for engaging in car sharing are primarily utilitarian (expressed by convenience and savings). Furthermore, they also revealed that in the context of car sharing there is also a preference for surveillance and governance rather than relying on trust and community (Bardhi & Eckhardt, 2012). Lastly, Moeller and Wittkowski (2010) studied consumer preference for renting and they found that non-ownership is negatively affected

by possession importance but positively influenced by consumers' trend and convenience orientation.

Although there is an increasing number of studies that have focused on the antecedents of collaborative consumption, there is a need for further research in different contexts and utilizing different theoretical constructs. Our study aims to bring new critical knowledge on the two kinds of antecedents of collaborative consumption, namely materialism and price consciousness. To our knowledge, materialism and price consciousness have received only minor attention in previous empirical studies in the context of collaborative consumption. Therefore, we believe that by focusing on these two constructs we can gain new interesting insights and contribute the consumer research in general, and sharing economy and collaborative consumption literature in particular.

Take in Table 1 around here (Empirical studies of the reasons for participation in collaborative consumption and sharing-related activities)

Research hypotheses

Materialism and collaborative consumption

Materialism is a construct that has gained considerable attention among consumer and marketing researchers over the past several decades (Belk, 1985; Richins & Dawson, 1992). Materialism is typically defined as the importance

consumers place on material goods as a means for reaching important life goals (Richins & Dawson, 1992; Richins, 2004; Richins & Chaplin, 2015). As Burroughs and Rindfleisch (2002, p. 349) define, “materialism can be viewed as the value a consumer places on the acquisition and possession of material objects”. Richins and Dawson (1992) have stated that for materialists possessions and their acquisition are at the forefront of their personal satisfaction and well-being in life. Shrum et al. (2013), in turn, state that materialism refers to the extent to which consumers attempt to engage in the construction and maintenance of the self through the acquisition and use of objects that are perceived to create desirable symbolic value for them.

The answer for the question how materialism is related to sharing seems to be quite clear-cut. According to Belk (2007; 2010; see also 1985), materialism may inhibit sharing due to reason that materialists believe that possessions are the key source of happiness. In similar vein, Richins and Dawson (1992) have suggested that materialistic people value their material possessions more highly than other matters and activities in their life. Furthermore, Belk (2007; see also 1985) argues that non-generosity (an unwillingness to give possessions to or share possessions with others) as the one of the key components of materialism explains why those who are more materialistic are presumably less willing to share. Although Belk (2007; 2010) has provided strong theoretical arguments concerning the relationship between materialism and sharing, empirical research related to this topic is scarce. One of the few empirical studies that tackled the link between these constructs is the study done by Akbar et al. (2016). In their study, Akbar et al. (2016) found evidence that materialism is a dominant inhibitor of consumers' willingness to

take part in commercial sharing systems. Particularly, according to Akbar et al. (2016), materialistic-oriented consumers' possessiveness is the key inhibitor for the acceptance of sharing business models. The study conducted by Ozanne and Ballantine (2010), in turn, revealed that individuals who engage in sharing receive relatively low scores on the materialism scale.

This study tries to link the materialism to the collaborative consumption that includes transfer of ownership. Although above theoretical arguments (Belk, 2007; 2010) and available empirical studies (Akbar et al., 2016; Ozanne & Ballantine, 2010) are more or less related to sharing in general, it can be assumed that consumers who can be regarded as materialistic perceive any kinds of collaborative consumption practices (incl. C2C trading) as unfavorable behavior, and they also have lower collaborative consumption intentions. To be more specific, we hypothesize the following:

H1a: Materialism is negatively related to collaborative consumption attitudes.

H1b: Materialism is negatively related to collaborative consumption intentions.

Price consciousness and collaborative consumption

It is well known fact that price is an important driver of consumer behavior (see e.g. Gabor & Granger, 1979; Lichtenstein et al., 1988; Lichtenstein et al., 1993). However, as Hansen (2013) argues, how consumers evaluate and use price information when making purchases depends on how the individuals perceive

and react to price information in general. One psychological factor that significantly affects consumer reactions to price information is “price consciousness”. Price consciousness refers to the importance that consumers give to price when evaluating or purchasing products (Lichtenstein et al., 1988; Lichtenstein et al., 1993). According Alford and Biswas (2002), those consumers who are highly price conscious keep searching for a lower price (even in the presence of a good sale price) because they are intrinsically motivated to do so.

It is widely argued that for many consumers saving money is one of the key reasons to engage in collaborative consumption. For example, Möhlmann (2015) showed that consumers engage in collaborative consumption mainly for rational reasons. Thus, consumers pay attention to the fact that collaborative consumption helps them to save money (Möhlmann, 2015). Philip et al. (2015) also found that people engaged in peer-to-peer renting for economic pursuits, to maximize savings and earnings. Owyang et al. (2014) revealed that many consumers take part in collaborative consumption motivated by the price. Hamari et al. (2016), in turn, found that economic benefits have a significant effect on behavioral intentions but not on attitudes towards collaborative consumption. However, Moeller and Wittkowski (2010) found that price consciousness is not a significant determinant of a preference for non-ownership.

Although there is no general agreement on how price consciousness is related to collaborative consumption, our study expects that consumers who can be regarded as “price consciousness” perceive collaborative consumption as a favorable behavior,

and they also have higher collaborative consumption intentions. To be more specific, we hypothesize the following:

H2a: Price consciousness is positively related to collaborative consumption attitudes.

H2b: Price consciousness is positively related to collaborative consumption intentions.

Collaborative consumption attitudes and intentions

The consumer behavior literature typically explains human behavior by focusing on the concepts of attitudes and intentions (see e.g., Ajzen & Fishbein, 1980; Ajzen, 1991; Hrubes & Ajzen, 2001; Ajzen, 2005). Attitudes refer to the extent to which a person perceives certain behavior (in this case collaborative consumption) to be favorable or unfavorable. Intentions, in turn, are assumed to capture the motivational factors that influence such behavior. As Ajzen (1991, p. 181) argues, intentions are “indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior”. In a similar vein, Dutta and Singh (2014) define intentions as individual’s conscious motivation to make an effort to engage in the specific behavior. Ajzen (1991) states that the stronger the intention to engage in a behavior, the more likely its performance. In other words, intention is a reliable predictor of actual behavior although the relationship between intention and behavior is not perfect (Ajzen, 1991, 2005; Yunhi & Heesup, 2010).

The relationship between collaborative consumption attitudes and intentions can be assumed to be relatively straightforward. As Ajzen (1991) has stated, the more favorable the attitude with respect to a behavior, the stronger should an individual's intention to be to perform the behavior under consideration (Ajzen, 1991). In other words, if a consumer has a favorable perception on collaborative consumption, he/she probably has a high intention to such behavior. However, as Ajzen and Fishbein (1980) and Ajzen (1991) suggest, there are also other factors that affect intentions (subjective norm and perceived behavioral control). In this study we focus only on the relationship between attitudes and intentions. To be more specific, we hypothesize the following:

H3: Consumers' attitudes towards collaborative consumption are positively related to intentions to such behaviour.

Method

Data collection and sample

The survey data were collected in October 2015. The nationally representative sample was randomly drawn from the adult population of mainland Finland. A total of 3500 questionnaires (in Finnish language) and self-addressed pre-paid envelopes were mailed to Finnish citizens. A total of 976 observations were obtained (with the response rate 28%). After excluding a range observations (e.g., age below 18) the final sample

was composed of 752 usable responses. The average age of respondents was 45 (range = [18; 65], median = 44) and 59.57% were male.

Measures

In this study collaborative consumption is perceived as C2C trading that includes the transfer of ownership. This definition is based on the classification provided by Hamari et al. (2016). Hamari et al. (2016) argue that collaborative consumption can be separated into two main categories of exchange: (i) access over ownership and (ii) transfer of ownership. Thus, our measures related to the collaborative consumption are framed against the idea of latter one. Furthermore, we do not make a distinction whether collaborative consumption is approached from the viewpoint of buyer or seller. The questions related to collaborative consumption are neutral in that sense.

In order to give a thorough examination of the quality of our measurements (e.g., Woodside, 2013) and following recent examples (e.g., Chan, To, & Chu, 2015), the sample was split into two halves; one to be utilized for the reliability and validity of the measures ($n = 376$) and the other one as a holdout sample ($n = 376$) to confirm our results.

Collaborative consumption intentions. Intentions are consumers' aim to carry out and engage in collaborative consumption in the future (see e.g., Azjen, 1991; 2005). Based on this definition, we developed two 7-point scale items to measure collaborative consumption intentions: *"I have the intention to increase*

collaborative consumption in the near future” and *“Collaborative consumption will not be a central part of my consumption in the future”* (reverse). As the terminology of collaborative consumption is not very established in Finland, a short introductory text explaining what is referred to by the concept of collaborative consumption was provided in the questionnaire. In the questionnaire we used a Finnish word “vertaiskauppa” that can be roughly translated in English as C2C trading. Furthermore, in the questionnaire text we also made reference, first, to very well-known Finnish digital platforms and marketplaces for C2C trading such as Tori.fi (www.tori.fi) and Huuto.net (www.huuto.net), and second, to social media (esp. Facebook) recycling groups that are currently multifarious and popular in Finland. Cronbach’s alpha for this measure was 0.74.

Collaborative consumption attitudes. Collaborative consumption attitudes are the extent to which someone perceives collaborative consumption as favorable or unfavorable (Ajzen, 1991; 2005; Lee et al., 2009). Based on this definition, we developed two 7-point scale items to measure collaborative consumption attitudes: *“I have favorable attitude towards collaborative consumption”* and *“Collaborative consumption is a smart way to acquire and sell the goods”*. Cronbach’s alpha was 0.89.

Materialism. In this study materialism is defined as the importance consumers place on material goods as a means for reaching important life goals. Materialism was measured using a short version of the Richins and Dawson (1992) scale as proposed and tested by Richins (2004). The short version of the scale has nine items (e.g., *“The things I own say a lot about how well I am doing in life”*). As Richins

(2004) states, the nine-item version possesses acceptable psychometric properties when used to measure materialism at a general level. In our case, one item was removed due to its low factor loading (below 0.70, see following section). Cronbach's alpha on the remaining eight items was 0.83. The items were measured on a 7-point scale and appear in the Appendix.

Price consciousness. Price consciousness is the degree to which consumers focus on paying low prices (Lichtenstein et al., 1988; Lichtenstein et al., 1993). Based on the literature (e.g., Kopalle & Lindsey-Mullikin 2003; Kukar-Kinney et al., 2012), we included four items using a 7-point scale (e.g., *"No matter what I buy, I shop around to get the lowest price"*). Cronbach's alpha was 0.72. The full set of items appears in the Appendix.

Data analysis

Besides the Cronbach's alphas, we computed the composite reliability to assess the internal consistency reliability. In addition, convergent validity and discriminant validity were verified as follow. First, we conducted a confirmatory factor analysis using SAS (O'Rourke & Hatcher, 2013) with four latent variables representing price consciousness, materialism, collaborative consumption attitudes, and collaborative consumption intentions. This generated $\chi^2 = 528.23$ ($df = 113$), $p < 0.001$. The fit indices showed a good fit to the data (RMSEA = 0.069, GFI = 0.948, AGFI = 0.930; see e.g., Dilalla, 2000; O'Rourke & Hatcher, 2013). Each factor loading was found significant and superior to 0.70. Second, the average variance extracted and the composite reliability of each construct was superior,

respectively to 0.50 and 0.70. Third, the average variance extracted of each construct was found higher than the highest correlation with the other constructs.

As reported in Table 2, good composite reliability (Raykov, 1997) and convergent validity (Fornell & Larcker, 1981) were found for each construct and significant factor loadings were demonstrated for all of the indicators (Anderson & Gerbing, 1988) on the first half of the sample. In addition, Table 3 displays the details of the discriminant analysis. For cross-validation purposes, the same analyses were conducted on the holdout sample. The same conclusions were found. The CRs were also above 0.70 and AVEs above 0.50, indicating the establishment of convergent validity of the measurement scales. Discriminant validity was also confirmed. Therefore, the remaining analyses are conducted on the whole sample (N = 752).

Take in Table 2 around here (Loadings, reliability and convergent validity of measured variables)

Take in Table 3 around here (Discriminant analysis)

Common method variance

Following Podsakoff et al. (2003)'s recommendations related to common method variance bias, we first made explicit to our respondents that there are no right or wrong answers expected in our questionnaire and that the responses were anonymous. We believe this helped to reduce social desirability bias. Besides these ex-ante precautions,

we also test for common method variance bias statistically. We performed Harman's single factor test including all items of the four constructs (collaborative consumption intentions, collaborative consumption attitudes, materialism, and price consciousness) into an exploratory factor analysis. We found 4 factors with eigen values greater than one. The first factor accounted for 22% of the total variance. Being far below the 50% threshold, this result indicates that there is no evidence of uni-dimensionality in our data and thus that common method variance is not a concern in our study.

Findings

To test our hypotheses, we ran the structural model shown in Figure 2. The goodness-of-fit indices showed that the measurement models fit the data well ($\chi^2 = 1009.76$, $df = 113$, $RMSEA = 0.077$, $GFI = 0.949$, $AGFI = 0.931$).

The results showed that although materialism was negatively related to consumers' attitudes towards collaborative consumption (-0.09 , $p = 0.02$), a positive and significant relationship was found between materialism and consumers' intentions to collaborative consumption (0.08 , $p = 0.02$). Thus, H1a was supported while H1b was rejected.

***Take in Figure 2 around here (Structural equation modelling results
(standardized values))***

Price consciousness was positively related to consumers' attitudes towards collaborative consumption (0.14 , $p < 0.01$) supporting H2a. Price consciousness

was also positively related to consumers' intention to engage in collaborative consumption (0.13, $p < 0.01$) supporting H2b.

Finally, consumers' attitudes towards collaborative consumption were positively related to intentions to such behaviour (0.65, $p < 0.01$) so H3 was supported. Overall, our model was globally supported apart from the unexpected relationship between materialism and collaborative consumption. This point will be discussed below.

Conclusion and discussion

During the last few years there have emerged several studies that have extended our knowledge of the sharing economy and growing movement of collaborative consumption (see e.g. Belk, 2014; McArthur, 2015; Möhlmann, 2015; Martin, 2016; Sundararajan, 2016; Narasimhan et al., 2018). Although there is an increasing interest towards sharing economy and collaborative consumption, there is great need for further research. In particular, there is a lack of understanding of the factors that affect consumers' attitudes and intentions to engage in collaborative consumption. Against this background, our aim was to further increase understanding of determinants of collaborative consumption attitudes and intentions. In this study, we focused on the two kinds of antecedents of collaborative consumption, namely materialism and price consciousness. We also wanted to analyze how consumers' attitudes towards collaborative consumption are related to their intentions to such behavior. Furthermore, we approached collaborative consumption as a mode of exchange that includes

transfer of ownership, i.e. C2C trading. To explore these above points, we developed five hypotheses that were tested using structural equation modelling (SEM). Our sample consisted of 752 Finns. Our findings offer the following substantive contributions.

As a first important contribution, our study shows that materialism is negatively related to consumers' attitudes towards collaborative consumption. In other words, it seems that those consumers who can be regarded as materialistic perceive collaborative consumption as unfavourable behaviour. Generally speaking, this result is relatively well in line with the current understanding of the effects of materialism in collaborative consumption context. There is a more or less shared belief among the researchers that materialism and its key components possessiveness and non-generosity lead to unfavourable perceptions towards sharing (Belk 2007; 2010; Akbar et al., 2016; Ozanne & Ballantine, 2010). Although we focused on collaborative consumption that includes transfer of ownership, it seems that this above view is supported also by our study. One could even argue that materialistic people might not make a difference between various types of collaborative consumption practices (e.g. access over ownership vs. transfer of ownership), and therefore collaborative consumption is something that is perceived as unfavourable per se. To confirm this viewpoint would definitely require further empirical studies.

However, quite surprisingly, we found a positive and significant relationship between materialism and consumers' intentions to engage in collaborative consumption. Based on our findings, it could be claimed that although

materialistic consumers have unfavorable attitude towards collaborative consumption they are willing to engage in it in the future. The result is a bit controversial but it gets support from the study conducted by Moeller and Wittkowski (2010). In their study, they made interesting finding by showing that trend-oriented consumers who aim to consume the newest design or model of a product were more likely to rent goods. Furthermore, they argued that consumption without ownership offers consumers opportunities to gain access to products that would otherwise be denied them (Moeller & Wittkowski, 2010). Moreover, Akbar et al. (2016) showed that materialistic consumers who are usually not attracted by sharing might join sharing if it fulfills their desire for unique consumer products. According to them, this is based on the fact that sharing often enables access to products that consumers could not afford or would usually not buy (Akbar et al., 2016). All in all, our findings concerning the link between materialism and consumers' intentions to engage in collaborative consumption calls for further research.

As a second contribution, we demonstrated that price consciousness is positively related to consumers' attitudes towards collaborative consumption. In other words, those consumers who focus on paying low prices perceive collaborative consumption as favourable behaviour. In addition, our findings indicate that price consciousness is positively related to consumers' intention to engage in collaborative consumption. All in all, our findings support the current understanding that for many consumers saving money is one of the key reasons to engage in collaborative consumption (e.g. Möhlmann, 2015; Philip et al., 2015; Owyang et al., 2014; Hamari et al., 2016). For example, Möhlmann (2015) showed

that consumers participate in collaborative consumption mainly for rational reasons. Philip et al. (2015) also found that people engaged in peer-to-peer renting for economic pursuits, to maximize savings and earnings.

As a third contribution, consumers' attitudes towards collaborative consumption were positively related to intentions to such behaviour. In other words, this means that if consumer has a favorable perception on collaborative consumption, he/she has a high intention to such behavior. This finding is well in line with the current understanding of the relationship between attitudes and intentions. As Ajzen (1991) has stated, the more favorable the attitude with respect to a behavior, the stronger should be an individual's intention to perform the behavior under consideration (see also Ajzen & Fishbein, 1980; Ajzen, 1991; Hrubes & Ajzen, 2001; Ajzen, 2005).

Overall, our study has expanded the current knowledge of determinants of collaborative consumption. Our theoretical model and hypotheses were globally supported apart from the unexpected relationship between materialism and intentions to engage in collaborative consumption. Generally speaking, our findings indicate that the relationship between materialism and collaborative consumption might not be that clear-cut as one could first assume. According to our results, it seems that although collaborative consumption is perceived as unfavourable behaviour among materialistic consumers it is something that they are still ready to try in the future. However, it should be noted that these results might be related to the fact that our study focused on collaborative consumption that includes transfer of ownership (see limitations).

For practitioners the results in this study have revealed interesting insights into Finnish consumers from collaborative consumption perspective. In particular, our study has increased the understanding of the effects of materialism and price consciousness in the context of collaborative consumption. We believe that these findings could help practitioners particularly in their marketing efforts. For example, one could argue that there could be a demand for more “high-end” C2C trading platforms that would fulfill the needs of consumers who can be regarded as materialistic. However, collaborative consumption is typically something that is perceived as a way to make good deal, and therefore launching too “posh” C2C platforms could have a negative impact on consumers’ willingness to engage in collaborative consumption. Thus, launching and branding of the (new) platforms or marketplaces should be done with cautious, and by knowing what truly motivates the consumers to engage in sharing and collaborative consumption. Generally speaking, practitioners who are interested in to build up businesses related to collaborative consumption, should always keep in mind the fact that for many consumers collaborative consumption is something that they believe that helps them to save money. Wherever and whenever collaborative consumption occurs, consumers should always feel that they have made a smart decision by engaging in it. However, as Böcker and Meelen (2017) emphasise, the actual motivations to participate in collaborative consumption always differ between socio-demographic groups, and especially between different types of shared goods.

Limitations and future research

There are some limitations that suggest caution in assessing our findings. First, our study considered collaborative consumption as C2C trading that includes transfer of ownership, and therefore, findings may be different if other collaborative consumption behaviors are considered. In particular, future research should test and validate our model in settings where collaborative consumption is perceived primarily as access over ownership (e.g. car-pooling or coach surfing).

Furthermore, it should be noted that consumers' intentions to engage in collaborative consumption are affected by various factors. For example, in accordance with the theory of planned behavior (TPB), consumers' intentions are affected by their attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991; 2005). Therefore, in order to explain consumers' willingness to engage in collaborative consumption more thoroughly, further studies should take into account also other potential determinants such as subjective norms and perceived behavioral control.

Second, this study used a cross-sectional design. Therefore, it is difficult to establish causality between the studied factors. In fact, in cross-section analyses causality is often open to debate. However, to overcome this problem, future studies should employ longitudinal data to establish causality.

Furthermore, we argue that there is also a need for qualitative empirical studies to obtain a clearer understanding of collaborative consumption practices. These in-depth qualitative studies could reveal issues that would enable more thorough

operationalization of the concepts linked to collaborative consumption. In addition, as many services entail a C2C market it would be interesting to collect measures of attitudes and intentions from both the perspective of providers and users.

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Appendix 1

Collaboration Consumption Attitudes

1. I have favorable attitude towards collaborative consumption. CCA1
2. Collaborative consumption is a smart way to acquire and sell the goods.
CCA2

Collaboration Consumption Intentions

1. I have the intention to increase collaborative consumption in the near future. CCI1
2. Collaborative consumption will not be a central part of my consumption in the future (reverse). CCI2

Price consciousness (Lichtenstein et al., 1988; Lichtenstein et al., 1993; Kopalle & Lindsey-Mullikin 2003; Kukar-Kinney et al., 2012):

1. I check the prices even for inexpensive items before buying. PC1
2. Low price is an important consideration in my purchases. PC2
3. No matter what I buy, I shop around to get the lowest price. PC3
4. I am not willing to make extra effort to find lower prices (reverse). PC4

Materialism (Richins & Dawson, 1992; Richins, 2004):

1. I admire people who own expensive homes, cars, and clothes. M4
2. The things I own say a lot about how well I am doing in life. M2
3. I like to own things that impress people. M3

4. I try to keep my life simple, as far as possessions are concerned
(reverse).* M4
5. Buying things gives me a lot of pleasure. M5
6. I like a lot of luxury in my life. M6
7. My life would be better if I owned certain things I don't have. M7
8. I would be happier if I could afford to buy more things. M8
9. It sometimes bothers me quite a bit that I can't afford to buy all the things
I would like to have. M9

(*) removed.

Table 1

Empirical studies of the reasons for participation in collaborative consumption and sharing-related activities.

Author(s)	Focus	Method	Key findings
Hwang and Griffiths (2017)	The study investigates how the cognitive value perceptions and affective attitudes of Millennial consumers are related to behavioral intent in the context of collaborative consumption and how such relationships may be moderated.	Two scenario-based online studies with young consumers concerning several collaborative consumption services.	The study found that specific dimensions of value perceptions (utilitarian, hedonic and symbolic) have differing effects on young consumers' attitude and empathy toward collaborative consumption services.
Böcker and Meelen (2017)	The study explores the motivations of people willing to participate in different forms of the sharing economy.	A survey among respondents from Amsterdam, The Netherlands.	The results showed the differences in motivations between sectors, socio-economic groups, and the role of people as either user or providers of goods.
Hamari et al. (2016)	The study investigates people's motivations to participate in collaborative consumption.	The study employs survey data gathered from people registered onto a collaborative consumption site.	The results showed that participation in collaborative consumption is motivated by many factors such as its sustainability, enjoyment of the activity as well as economic gains.
McArthur (2015)	The study examines a community of C2C exchanges where no money changes hands.	The research presents a netnographic study of the motivations to participate in Land-share, a non-profit scheme operating in the UK, Canada, and Australia.	The study found that there are significant social belonging and other benefits stemming from collaborative consumption.
Möhlmann (2015)	The study examines the determinants of satisfaction and the likelihood of using a sharing economy option again.	Two quantitative studies. The study 1 focused on the users of the B2C car sharing service, and the study 2 on the users of the C2C online community accommodation marketplace.	The results revealed the satisfaction and the likelihood of choosing a sharing option again are predominantly explained by determinants serving users' self-benefit.
Bardhi and Eckhardt (2012)	The study explores access-based consumption in the context of car sharing via an interpretive study of Zipcar consumers.	Researchers conducted 40 semi-structured interviews with a purposive sample of Zipcar users located in Boston.	One of the findings was that car sharing is similar to market exchange in the sense that it is motivated largely by self-interest and utilitarianism.
Moeller and Wittkowski (2010)	The study identifies and assess the importance of proposed determinants of the growing consumer preference for renting consumer goods, as opposed to the actual transfer of ownership.	The study is based on quantitative study using a sample of a German online peer-to-peer sharing network.	The results revealed that the demand for non-ownership services is negatively influenced by "possession importance" and positively influenced by "trend orientation" and "convenience orientation".

Table 2. Loadings, reliability and convergent validity of measured variables

Variables	Indicators	Loadings	CR	AVE	Alpha
Collaborative consumption intentions	CCI1	0.76***	0.87	0.79	0.74
	CCI2	0.82***			
Collaborative consumption attitudes	CCA1	0.98***	0.94	0.90	0.89
	CCA2	0.81***			
Materialism	M1	0.92***	0.98	0.86	0.83
	M2	0.82***			
	M3	0.81***			
	M4	0.84***			
	M5	0.72***			
	M6	0.98***			
	M7	0.96***			
	M8	0.81***			
Price consciousness	PC1	0.76***	0.96	0.89	0.72
	PC2	0.89***			
	PC3	0.91***			
	PC4	0.98***			

Subsample: N = 376; CR: Composite reliability; AVE: Average variance extracted; Alpha: Cronbach's alpha. Indicators: see the complete description in the Appendix.

Table 3. Discriminant analysis

	1.	2.	3.	4.
1. Price consciousness	0.78			
2. Materialism	0.03	0.74		
3. Collaborative consumption attitudes	0.10	-0.09	0.80	
4. Collaborative consumption intentions	0.16	0.03	0.53	0.62

Subsample: N = 356; The bold numbers on the diagonal are the square roots of the AVEs. The off-diagonal elements are correlations between constructs.

Figure 2. Structural equation modelling results (standardized values)