Research on the Impact Mechanism of product-identity link on Shared Consumption Misbehavior

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Abstract. In shared consumption, the anonymity of products, consumers do not have the legal ownership of shared products, and the "quasi-public product" attributes of shared products can easily induce misbehavior in shared consumption. Observation and research have found that product-identity link can affect the occurrence of misbehavior in shared consumption. After three experiments, this study found that: (1) product-identity link can effectively alleviate the occurrence of shared consumption misbehavior; (2) psychological ownership plays a role in the influence of product-identity link on shared consumption misbehavior intermediary effect; (3) The moderating effect of social value orientation on psychological ownership affecting consumers' unethical behavior. The research conclusion not only has important theoretical significance for deepening product-identity link, shared consumption misbehavior, and psychological ownership, but also has important management enlightenment and practical significance for enterprises to alleviate shared consumption misbehavior.

Keywords: Product-identity link; Shared consumption misbehavior, Psychological ownership.

1. Introduction

Shared consumption, as a new consumption model under the background of "Internet +", is revolutionizing people's lives and is accepted by most people. According to statistics from the "Annual Report on the Development of China's Sharing Economy (2021)", under the impact of the sudden epidemic, new business models and new models represented by the sharing economy have shown great resilience and development potential. In the whole year, the sharing economy market transactions were about 3,377.3 billion yuan. With the popularization of shared consumption models in society, as a new thing, various new problems continue to breed. For example, after more than 1,700 shared bicycles were put on the market in Mengzi, the repair rate was as high as 70%. 3Vbike has ceased operations due to the theft of a large number of shared bicycles. Shared consumption improper behavior refers to the improper handling, damage or excessive use of shared products by consumers during the period from the acquisition to the loss of product use rights in the context of shared consumption. In shared consumption, product anonymity (Schaefers et al., 2016) \cite{1}, consumers do not have legal ownership of shared products (Bardhi & Eckhardt, 2012; Roos & Hahn, 2017) \cite{2, 3}, the "quasi-public product" attributes of shared products (Ou Guoli, Wang Ruizhe, 2017; Zhu Fuqiang, 2017) \cite{4, 5} These three characteristics determine that the consequences of consumer misbehavior are mostly the company (product owner) With others (product use rights holders), this will induce more improper behaviors, and eventually lead to the "tragedy of the commons" (Kollock P, 1998) \cite{6} Therefore, mitigation strategies for shared consumption misbehavior have become a problem that needs to be explored urgently in the academic circle.

Some scholars have proposed that ways to reduce the anonymity of products can alleviate the spread of misbehavior in shared consumption (Schaefers et al., 2016) \cite{1}. Consumers often have the effect of identity link during consumption, and can effectively reduce the anonymity of products. Identity link means that consumers connect themselves with another subject in different environments. This produces emotional links, which in turn affects their choice of behavioral strategies in this environment (Trudel, 2016) \cite{7}. At present, the consumer's identity link effect has been confirmed to exist between the consumer and the product (Trul, 2016; Bolton & Reed, 2004) \cite{7, 8}. product-identity link can effectively promote consumer purchase intentions (Belk, 1988; Chan, Berger, & Van
Boven, 2012; Escalas & Bettman, 2005; Kettle & Häubl, 2011) [9, 10, 11, 12]. In addition, the product-identity link can effectively promote consumers' active disposal of the product (Trudel, 2016; Belk 1988) [7, 9].

Existing research on product-identity link effects and shared consumption misbehavior is still inadequate: First, there are few studies on mitigation strategies for misbehavior under the shared consumption model. Most of the existing research focuses on the mitigation strategies of consumer misbehavior under the traditional consumption model. Shared consumption is an emerging model. Under this model, consumers only have the right to use within a certain period of time, have the characteristics of anonymity, and traditional consumption. In the consumption model, the main body of consumer misbehavior is mostly enterprises or employees, while in the shared consumption model, the targets of consumer misbehavior are mostly products. Therefore, the strategy of mitigating consumer misbehavior under the traditional consumption model does not apply to the shared consumption model; Existing research on product-identity link only focuses on the research on consumer purchase intention and disposal behavior of product-identity link under the traditional consumption model, and the research on identity link under the shared consumption model is still lacking. Based on this, this article focuses on consumer misbehavior in shared consumption, researches what strategies companies can take to reduce the occurrence of such behavior, and specifically answers the following questions: Does the product-identity link affect shared consumption misbehavior? If there is an impact, what are the internal mechanisms and boundary conditions of its impact? These issues need to be further explored. This article can not only enrich the research on shared consumption misbehavior and product-identity link, but also has important management implications for guiding enterprises to alleviate shared consumption misbehavior.

2. Hypothesis

2.1 The impact of product-identity link on shared consumption misbehavior

Trudel et al. (2016) found in a research on product disposal that when a product is connected to the consumer, consumers are more inclined to recycle (rather than discard) it, because discarding the product with its own identity means losing the consumer Part of yourself, this will threaten the identity of consumers, this is because consumers tend to maintain a positive self-concept [7]. The research of social psychology believes that individuals tend to be individualized in groups (David, 2006), because individuals in groups tend to lose their knowledge and requirements of self-concept. Due to their anonymity and large-scale nature, it is easy to cause group loss of control, such as following the majority of people to produce inappropriate behavior. Based on the theory of self-improvement/self-protection, Alicke (2009) [13], Hepper (2010) [14], and Wien (2014) [15] found that consumers have different implicit motivations when pursuing goals or implementing behaviors. The most representative one is self Promotion motivation and self-protection motivation. Self-Enhancement motivation (Self-Enhancement, SE) refers to the inherent tendency of individuals to involuntarily associate themselves with positive events to promote self-concept or self-image enhancement; and Self-Protection motivation (Self-Protection, SP) refers to the inherent tendency of individuals to involuntarily separate themselves from negative events in order to avoid self-concept or self-image damage (Hepper, Gramzow & Sedikides, 2010) [14] Identity link is an extension of consumers’ self-concept. Most people’s self-concepts are positive and tend to remain active all the time (Edwards, 1958). Self-improvement opportunities encourage consumers to implement it to stay positive. Self-concept behavior, that is, to reduce the improper behavior of sharing consumption. In addition, when consumers receive feedback that threatens their self-concept, their state self-esteem will temporarily decrease or produce a sense of discomfort. Self-protection motivation takes effect. Consumers tend to seek or increase positive experiences and avoid or reduce negative experiences (Alicke, 2009; Campbell, 1999) [13, 16]. In order to cope with lowered self-esteem or uncomfortable feelings, they experience Self-threatening consumers will make behaviors aimed at confronting and reducing threats in order to protect, maintain, or improve self-esteem and self-esteem (Lee, 2012; Munich, 2016).
Therefore, in the context of shared consumption, when sharing products and consumers. After the identity link is generated, in order to avoid the negative experience that threatens self-identity, consumers are unwilling to implement behaviors that damage their self-identity, that is, damage the shared product, which can alleviate the improper behavior of shared consumption to a certain extent. Therefore, according to the above reasoning, this article proposes the following assumptions:

H1: The product-identity link (no link) will negatively affect the occurrence of misbehavior in shared consumption.

2.2 The Mediating Effect of Psychological Ownership

Psychological ownership is usually defined as a mental state in which a target (material or non-material, such as a product or enterprise) or a part of it is regarded as "one's own" (Pierce, 2004) [17]. Psychological ownership is different from legal ownership or formal ownership. This sense of ownership is not based on legal recognition and protection, but it reflects the close link between the target and the consumer's self-concept. The influencing factors of the formation of psychological ownership mainly include: sense of control, devotion, and familiarity (Furby, 1978; Belk, 1988; Peck, 2009; Peck, 2013; Liu Jianxin, Fan Xiucheng, 2020; Brasel, 2014; Truong, 2016; Fuchs, 2010; Kirk, 2015; Franke, 2010; Sinclair, 2017) [18, 9, 19, 20, 21, 22, 23, 24, 25, 26, 27].

The product-identity link can effectively induce psychological ownership. First of all, consumers tend to choose products associated with their own identity, and the purchase, display, and use of products can represent their own preferences to a certain extent (Grubb & Grathwohl, 1967; Bandura, 1976), so product-identity link can enhance consumers' familiarity with the product. Secondly, in shared consumption, when a consumer has an identity link with a product, it will prompt consumers to choose and use the product, and during the use of the product, the actual sense of control over the product can effectively induce consumers to have the psychological ownership of the product. In addition, studies have shown that products that have an identity link with consumers (such as consumer names) are conducive to the establishment of consumer psychological ownership, because they reflect the "ownership relationship" between consumers and the target (Kou Yan, 2018) [28].

Psychological ownership can reduce the generation of misbehavior in shared consumption. There is a close link between psychological ownership and possession. Possession psychology related research pointed out that possession and ownership perception can stimulate consumers' positive attitudes, self-link and sense of responsibility towards the target object, thereby prompting consumers to protect their ownership (Wang Hao, 2007) [29]. Moreover, research in the marketing field points out that psychological ownership has a positive impact on product attitude and attachment, customer fit, customer loyalty and customer citizenship behavior (Fuchs & Prandelli, 2010; Kirk, Swain & Gaskin, 2015; Fuchs, Schreier & Van Osselaer, 2010; Zhang Depeng, Lin Mengfei, Chen Xiaoyan, 2015) [24, 25, 30]. From this, it can be inferred that in the context of shared consumption, when the psychological ownership is stronger, consumers are less willing to perform actions that damage the product.

The product-identity link can effectively alleviate the misbehavior of shared consumption. This is because the product-identity link can induce consumers' psychological ownership and reduce consumers' behaviors that are harmful to the product (i.e., misbehavior of shared consumption). Therefore, based on the above reasoning, this article proposes the following hypotheses:

H2: Psychological ownership plays an intermediary role in the negative relationship between product-identity link and shared consumption misbehavior.
3. Studies

3.1 Experiment 1: The impact of product-identity link on shared consumption misbehavior

3.1.1 Pre-test 1

The purpose of pre-experiment 1 is mainly to test the validity of experimental materials, experimental conditions, and experimental procedures for experiment 1. This article focuses on the field of shared travel. In order to enhance the external validity of the research, pre-experiment 1 and experiment 1 will adopt the more extensive and representative shared cars among the shared products. Projection technology has been widely used in consumer behavior studies (Boddy, 2005). It can effectively detect real thoughts and emotions that are difficult or even impossible to obtain by directly asking subjects. Since unethical behaviors are regarded as negative behaviors, direct detection of subjects is likely to produce moral masking effects, so projection technology is more suitable. Experiment 1 mainly uses a more anonymous questionnaire method. To simulate the use of shared cars, the subjects are required to click on the button according to each car use step to simulate car use, and induce consumer identity links through identity information (name, avatar, nationality, etc.). The experimental scenario assumes that you are the protagonist of the scenario, "You are Xiao Li, a student from Southwest XX University. Today, you and your friend went to the provincial library to study. The provincial library is about 5 kilometers away from the school, and the time agreed by you and your friend There are still fifteen minutes, and you are very anxious to go out. After you leave school, you see a shared car not far away. You scan the code to open the bicycle door. After scanning the code, the phone screen displays "Scan code successful, welcome to Xiao Li Bygo car, please pay attention to driving safety" (vs. "Scan the code successfully, please pay attention to driving safety"), then you ride to the Provincial Library, but when you reach the Provincial Library downstairs, you see "No parking " sign, at this time your friend is calling you not far away... I parked the car in the restricted area and ran to find a friend (vs. I tried to find a parking area, and I parked the car and ran to find a friend). Thirty subjects from a college in southwestern China were invited to participate in the experiment. Inter-group experiments were used to present subjects with different scenarios (vs. none) with identity links, and they were asked to fill in relevant scales. Refer to Forehand (2001) and Mannetti (2004) on product-identity link measurement scales, including: "This car can reflect who I am", "This car can represent my identity", "This car can express "My nationality", "This car does not reflect who I am", etc., all question items are 7-point Likert scale (1=strongly disagree, 7=strongly agree); after filling in the question items, the subject You will be asked about the purpose of the experiment, be thanked, and receive a 10 RMB participation reward and a 100 RMB lucky draw opportunity.

After the experiment, after careful inspection, it was found that 4 subjects were rejected because they did not answer the questions carefully. The final effective subjects were 26 (15 males/11 females), and the average age of the effective subjects was M age = 21.038 Years old (SD=0.871). The statistical results of Preliminary Experiment 1 show that there are (vs. none) identity link groups in "This car can reflect who I am" (MIL= 6.643, MNIL= 1.333, t(26) = 27.265, p<0.050) [IL=identity-link, NIL=without identity-link], "This car can represent my identity?" (MNIL = 3.357, MIL = 5.333, t(26) = -10.148, p<0.050), "This car can express my nationality identity?" (MNIL= 2.643, MIL= 5.500, t(26) = -14.273, p<0.050) and "This car can’t reflect who I am" (MNIL=5.983, MIL=1.232, t(26)=21.326, p<0.050), there is a significant difference, and the two are in There are no significant differences in age, gender, number of people, etc. The results of this study show that the manipulation of identity link information is successful, and we will use it in the main experiment 1.

3.1.2 Formal experiment

The purpose of Experiment 1 is to detect the negative impact of the identity link strategy on the misbehavior of shared consumption. The experiment will adopt a single-factor between-group design. The research was carried out in the form of eye-movement experiments. Except that subjects were required to fill in different survey items and experimental rewards, the experimental products,
experimental conditions, and experimental process were exactly the same as those of preliminary experiment 1. The survey items include the "Identity Link Scale" and "Shared Consumption misbehavior Scale". Based on the actual situation, refer to Schaefers (2016) and others on the measurement scale of shared consumption misbehavior, including: "Even if I get I will not clean the car before returning it if it is dirty", "I will take away the garbage generated in the car", "If I scratch the car, I will not report it to the company", "If I am just a minor If the rearview mirror is damaged, I will not report it to the company", "If I only slightly damage the rearview mirror, I will not report to the company", "I will treat the car in a way that is unacceptable to others", etc. 7 Click on the Likert scale. We invited 176 students from a university in the southwestern region to participate in the experiment, and the experiment was completed in three batches. Among them, 92 copies were collected from the product identification link group and 84 without product identification.

First, carry out the reliability and validity test. SPSS22.0 statistical results show that the reliability of product-identity link, psychological ownership, and shared consumption misbehavior, Cronbach's $\alpha$ is between 0.809-0.936, which is greater than the acceptable standard of 0.700 (Churchill, 1979), Which also shows that it has good internal consistency, stability and reliability.

Secondly, manipulate inspection. Yes (vs. No) identity link group (M with identity link=4.25, M without identity link=, F=2.59, p<0.050), there is a significant difference, and the two are in age, number of people, etc. There are no significant differences in all aspects. The results of this research show that the manipulation of identity link information is successful.

Finally, the direct effect test is the negative impact of the product-product-consumer identity link on the misbehavior of shared consumption. It can be seen from the above table that the product-product-consumer identity link is used as the independent variable, and the shared consumption misbehavior is used as the dependent variable for linear regression analysis. As can be seen from the table below, the model formula is: shared consumption misbehavior=4.523- 0.325* product-consumer identity link, the value of the model R party is 0.369, which means that the product-consumer identity link can explain 36.9% of the reasons for the change in shared consumption misbehavior. When the model was tested by F, it was found that the model passed the F test (F=101.546, p<0.05), which means that the product-consumer identity link will definitely affect the improper behavior of shared consumption. The final specific analysis shows that: product- The regression coefficient value of consumer identity link is -0.325 (t=-10.077, p<0.01), which means that product-consumer identity link will have a significant negative impact on shared consumption misbehavior. The summary analysis shows that all product-consumer product-consumer identity links will have a significant negative impact on shared consumption misbehavior. Assumption 1 is effectively verified.

3.2 Experiment 2: The mediating role of psychological ownership

The purpose of Experiment 2 is to test the mediating role of psychological ownership. The experiment will adopt a single-factor between-group design. Except for the different survey items and experimental rewards that the subjects were asked to fill in, the experimental products, experimental situation, and experimental process were exactly the same as those in Preliminary Experiment 1. We invited 203 students from a college in southwestern China to participate in the experiment in four batches, with the same conditions as Experiment 1. Refer to Fuchs (2010), Zhang Depeng (2015) and others on the psychological ownership measurement scale, including: "During the use of a shared car, I would like to think that this is my car", "During the use of a shared car, I feel that this car Belongs to me", "During the use of the shared car, I have a kind of link with this car", "During the use of the shared car, I have a strong sense of intimacy with this car", "During the use of the shared car, It's hard to make me feel like this is my car" etc. In this study, a total of 324 questionnaires were collected, and 37 questionnaires that "have never used shared cars and low frequency of use" were excluded, and 287 valid questionnaires were obtained. Among them, a total of 149 copies were recovered from the product-identity link group, and a total of 138 copies were recovered from the none product-identity link group.
Firstly, Reliability and validity test. The statistical results of SPSS22.0 show that the reliability of product-identity link, psychological ownership, and shared consumption misbehavior, Cronbach’s $\alpha$, is between 0.862 and 0.901, which are all greater than the acceptable standard of 0.700 (Churchill, 1979), which also shows its It has good internal consistency, stability and reliability.

Secondly, conduct a manipulation test. Yes (vs. No) identity link (M with identity link=5.90, M without identity link=2.29, F=3.828, p<0.01) there is a significant difference, and there is no significant difference between the two in terms of age, number of people, etc. Significant differences. The results of this research show that the manipulation of identity link information is successful.

Thirdly, the main effect test is performed. The product-consumer product-consumer identity link is used as the independent variable, and the shared consumption misbehavior is used as the dependent variable for linear regression analysis. From Table 2, it can be seen that the model formula is: shared consumption misbehavior=7.838-0.990*product -Consumer identity link, the value of the model R2 is 0.776, which means that the product-consumer identity link can explain 77.6% of changes in shared consumption misbehavior. The F test of the model found that the model passed the F test (F=985.164, p<0.01), which means that the product-consumer identity link will definitely affect the improper behavior of shared consumption. The final specific analysis shows that: product- The regression coefficient value of consumer identity link is -0.990 (t=-31.387, p<0.01), which means that product-consumer identity link will have a significant negative impact on shared consumption misbehavior. The summary analysis shows that all product-consumer identity links will have a significant negative impact on shared consumption misbehavior, which once again proves that Hypothesis 1 is correct.

Finally, the mediating role of psychological ownership. The Bootstrap sampling inspection method was used to conduct the intermediary study (Zhao et al., 2010, Hayes et al., 2013), and the sampling times of each variable were standardized to 5000 times. The statistical results show (see Table 3): psychological ownership is in the identity link Part of the mediating effect on the impact of shared consumption misbehavior, the mediation effect is -0.355 (LLCI=-0.406, ULCI=-0.222, excluding 0), so the mediation effect hypothesis of Hypothesis 2 is effectively verified.

4. Summary

The improper behavior of shared consumption harms the interests of other consumers and enterprises, and has become a key factor restricting the development of shared consumption models. Academia mostly proposes governance strategies for shared consumption misbehavior from the macro level, and rarely explores intervention measures for shared consumption misbehavior from the perspective of consumer psychology and behavior. In fact, a series of measures taken by the government and enterprises have not achieved the expected results. As a type of consumer behavior that inevitably arises with the rapid rise of the sharing economy, improper behavior of shared consumption is necessary to restrict such behavior from a micro perspective. And boot. This research proposes that product-identity link can effectively alleviate the occurrence of misbehavior in shared consumption, and provide management suggestions for enterprises to solve the misbehavior of shared consumption that they are facing. In addition, this article explores and studies the intrinsic motivation and boundary conditions of shared consumption misbehavior, and draws some important research conclusions, which have important theoretical significance and practical enlightenment. Of course, subject to the limitations of research conditions and research methods, this article also has some research limitations that need to be improved.

The product-identity link can effectively alleviate the occurrence of shared consumption improper behavior. The results of Experiment 1 show that products with product-identity link can effectively reduce the occurrence of shared consumption improper behavior.

Psychological ownership plays an intermediary role in the influence of product-identity link on shared consumption misbehavior. There are multiple intermediary mechanisms for shared products to affect consumers' unethical behavior. Consumers’ motives for disrupting shared products’
unethical behaviors are diverse, and even produce contagious effects or "broken window effects" (Schaefers et al., 2015), but the motivation structure is not disorderly, but a certain structural system. The mediation effect of Experiment 2 shows that the lack of psychological ownership is the core cause of improper behavior in shared consumption.

The orientation of social values will have a moderating effect on the mediating effect of shared consumption misbehavior. Consumers’ intermediary mechanism for shared consumption misbehavior is not unconditionally restricted. The orientation of social values will have a moderating effect on the influence of psychological ownership on shared consumption misbehavior. The results of Experiment 3 show that consumers who are personally value-oriented will have higher share consumption misbehaviors when they have low psychological ownership, while consumers who are pro-social values-oriented have insignificant sharing when they have high and low psychological ownership. Consumer misbehavior.

Due to the limitations of research conditions and research methods, this article also has the following research limitations: First, although this article found that product-identity link affects the intermediary mechanism of shared consumption misbehavior and the moderating effect of social value orientation, it is due to its influence There are many factors and complex influencing structures. More influencing mechanisms and boundary conditions need to be explored and studied. Second, this article only conducts a cross-sectional study on the mechanism and regulatory boundaries of product-identity links that affect consumers’ unethical behavior. Whether shared products or consumers are developing dynamically, it is necessary to track the impact and investigate its timing impact; third, in order to avoid the fatigue effect of the subjects when measuring the improper behavior of shared consumption and other constructs, this article only adopts For representative survey items, future research needs to use a more complete related construct measurement scale for testing; fourth, the experimental product used in this article is a shared car, and the experimental subject is a college student and data from a university in southwestern China. The collection method is a questionnaire method, which will undoubtedly affect the external validity of the research results. Therefore, in the future, the scope of experimental products and the scope of experimental subjects should be expanded, and more implicit attitude measurement (IAT) and eye tracking technology (ET) should be used in the future. And other more scientific methods to improve the external validity of research.

References


