How to Reduce Consumer Misbehaviour in the Sharing Economy: A Communicative Ecology Perspective

Short Paper

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Abstract

In recent years, the phenomenon of consumer misbehaviour in the sharing economy has been burgeoning in practice with the growing of user base. Literature on this issue, however, is still in its infancy. The purpose of this research thus is to investigate how to reduce consumer misbehaviour in the sharing economy. Drawing on communicative ecology theory and consumer misbehaviour literature, we establish a research model and identify factors motivating or inhibiting consumer misbehaviour at technological, content and social layers. The model will be tested using data collected from an online survey. The results of this paper are expected to be valuable for understanding the phenomenon of consumer misbehaviour in the sharing economy and provide implications for scholars and managers.

Keywords: Consumer misbehaviour, sharing economy, communicative ecology theory, platform governance, psychological ownership, anonymity, moral belief

Introduction

The sharing economy is becoming increasingly popular around the world. It is considered to bring positive social and economic outcomes, such as public and convenient access to resources, more efficient use of idle capacity, enhanced market recycling of goods and increased community awareness (Martin 2016). However, a coin has two sides, as does the sharing economy. The lack of ownership in such a business mode may cause consumer misbehaviours such as privately possessing or improperly using shared products (Wang et al. 2021). For instance, it was reported that vandalizing the essential parts of shared bikes and disorderly parking them are the main challenges of the bike-sharing market in China (Gu et al. 2019). Similarly, there are many documented cases of home damage, stolen items and left dirty on accommodation sharing platforms (e.g., Airbnb) (Ma et al. 2020). Considering that consumer misbehaviours impede the sound development of sharing ecosystems, an increasing number of researchers and practitioners are paying attention to this phenomenon (Jia et al. 2018). Hence, understanding how to reduce consumer misbehaviour in the sharing economy becomes an important issue that is worth studying.

There is an abundance of literature examining how to manage consumer misbehaviours (e.g., shoplifting, abusing properties and attacking others physically or verbally) in various contexts, such as retail stores (Chang and Lu 2019; Steenhaut and Van Kenhove 2005), hotel accommodation (Daunt and Harris 2011; Harris and Daunt 2004) and insurance industry (Garnefeld et al. 2019; Warren and Schweitzer 2018). Although these studies shed insights into the management of consumer misbehaviours, they mainly focused on consumer direct misbehaviours, namely, misbehaviours occurring in the presence of employees or other consumers (Fisk et al. 2010). However, the sharing economy is highly prone to consumers’ indirect
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Towards the presence of others (Schaefer et al. 2016). This implies that the findings about direct misbehaviours in traditional businesses may not be appropriate for a deeper understanding of indirect misbehaviours in the sharing economy.

In addition, the literature on the dark side of consumers in the sharing economy is still in its infancy. To the best of our knowledge, there are just several studies on consumer misbehaviour in relation to the current context. For instance, Schaefer et al. (2016) explored the contagious effects of consumer misbehaviour based on broken windows theory. Additionally, Jin et al. (2020) integrates deterrence, rational and ethical decision-making theories to establish a holistic framework of consumer misbehaviour. More recently, Hou et al. (2022) analysed the reasons for consumer misbehaviour by combining rational decision-making and personal factors. These findings provide valuable insights into the management of consumer misbehaviour in the sharing economy. However, they either focused on the consumers’ different appraisals or discussed their personal attributes. In this case, although existing research has confirmed the important roles of context-specific factors on consumer misbehaviour (Wirtz and Kum 2004), it remains unclear what and how contextual variables motivate or inhabit consumer misbehaviour in the sharing economy. Furthermore, prior studies on consumer misbehaviour have demonstrated the interaction of situational factors and personal characteristics (Daunt and Harris 2011; Wirtz and Kum 2004). However, few studies have investigated the indirect effects of contextual or personal variables (Ma et al. 2020). Motivated by these research gaps, this research aims to investigate the mechanism by which contextual and personal factors influence consumer misbehaviour in the sharing economy by capturing the unique nature of such a context.

To identify the context-specific factors affecting consumer misbehaviour in the sharing economy, we draw on communicative ecology theory (CET). This theory provides a holistic framework to capture the technology infrastructure, discursive theme and social interaction of a specific communicative ecology (Foth and Hearn 2007). Additionally, based on the consumer misbehaviour literature, we incorporate consumer moral belief as a moderator into the research model. We will use data from a survey of Chinese bike-sharing users to test this model. Our paper is projected to make several research contributions (see Table 1). First, by applying the CET framework, this study provides a holistic and appropriate view of consumer misbehaviour in the sharing economy. Second, this study contributes to CET theory by extending it to the sharing economy context. Third, this research advances the scholarly understanding of consumer misbehaviour by revealing the moderating role of consumer moral belief. Additionally, this research informs sharing economy firms on how to effectively manage consumer misbehaviour.

<table>
<thead>
<tr>
<th>Contributions</th>
<th>Status of Current Literature</th>
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<tr>
<td>Drawing on the CET framework, this research reveals the contextual factors of consumer misbehaviour in the sharing economy by capturing the unique nature of this context.</td>
<td>Prior studies on consumer misbehaviour in the sharing economy ignore the important roles of contextual variables (Hou et al. 2022; Jin et al. 2020; Schaefer et al. 2016).</td>
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<td>This research extends the CET theory to the sharing economy context which featured as online purchase and offline access.</td>
<td>Existing research on CET are conducted in either online or offline networks such as virtual community and workplace (Gee-Woo et al. 2015; Ou and Davison 2016; Seol et al. 2016).</td>
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<td>By examining the moderating role of consumer moral belief, this study offers a deep understanding of consumer misbehaviour in the sharing economy.</td>
<td>Literature on sharing economy lacks insights into the moderating roles of contextual or personal variables (Ma et al. 2020).</td>
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Table 1. Preview of Contributions

Theoretical Background

Consumer Misbehaviour in the Sharing Economy

The sharing economy is an emerging business model that allows consumers to temporarily access (in) tangible resources via IT-enabled platforms (Bardhi and Eckhardt 2012). As a more sustainable form of consumption, it is changing people’s lives around the world (Bardhi and Eckhardt 2017). However, as Bardhi and Eckhardt (2012) suggested, consumers tend to ignore their responsibilities for the accessed
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objects. The phenomenon of consumer misbehaviour is common in the sharing economy, which undermines the market order and threatens the development of related enterprises (Yin et al. 2019). Specifically, consumer misbehaviour refers to consumers deliberately violating service rules or accepting social norms during the consumption processes (Fullerton and Punj 1997). It not only occurs at service locations with the presence of others (Daunt and Greer 2015; Fisk et al. 2010) but also occurs in the remote service context in the form of abusing service resources (Jia et al. 2018). The former is characterized as direct misbehaviour, including theft and verbal or physical abuse (Daunt and Greer 2015; Fisk et al. 2010). The sharing economy is highly prone to the latter, namely, indirect misbehaviour, which targets the resources or systems for service delivery (e.g., vandalizing shared bikes or cars) (Schaefer et al. 2016). Hence, in our context, we define consumer misbehaviours as consumers’ behaviours that violate the rules or norms set forth by sharing economy firms for their assets and systems, manifested in the improper use of shared objects, vandalism, private possession, etc. (Hou et al. 2022). These behaviours can not only bring management challenges (e.g., increasing firms’ financial and labour costs and affecting the service experience of other customers) (Schaefer et al. 2016) but also intensify some social and environmental problems (e.g., causing traffic congestion and wasting nature resources) (Yin et al. 2019). Given these negative outcomes of consumer misbehaviour in the sharing economy, it is imperative to explore how to manage it.

The sharing economy differs from traditional businesses in three aspects. First, as Chen and Wang (2019) suggested, the digital-economy nature is the critical feature of this context. Although consumers generally experience access-based services in the offline physical environment, online sharing platforms are crucial for successful service delivery (Bardhi and Eckhardt 2012). Second, in the sharing economy, there is no transfer of ownership of goods between service providers and consumers. Instead of owning goods, consumers prefer to pay for experiencing them temporarily (Bardhi and Eckhardt 2012). Third, different from traditional businesses based on the direct interaction between buyers and sellers, the sharing economy business is always designed as a self-service model that guarantees lower costs for its participants (Bardhi and Eckhardt 2017). The little social interaction between employees and consumers leads to fewer labour services offered and more regulation risks in such a context (Ma et al. 2020). In such digital settings, consumers’ behaviours are influenced not only by their interactions with shared objects and the surrounding public but also by the messages or measures on online platforms (Bardhi and Eckhardt 2012; Chen and Wang 2019).

A careful scrutiny of the consumer misbehaviour literature suggests three important research gaps. First, although there is a wealth of studies investigating the reasons for consumer misbehaviour, most of them focus on traditional businesses, such as retailing (Daunt and Greer 2015), hospitality (Daunt and Harris 2011) and software industries (Chen et al. 2009). Given the differences between traditional businesses and the sharing economy, simply adopting the findings derived from traditional business environments is unlikely to offer accurate explanations in our context. Second, the literature on consumer misbehaviour in the sharing economy has investigated the effects of stakeholders’ responses (Jia et al. 2018), consumers’ personal moral beliefs (Jin et al. 2020), social norms (Schaefer et al. 2016), interpersonal trust (Ma et al. 2020) and consumers’ cost or benefit appraisals (Hou et al. 2022). These findings shed light on the management of consumer misbehaviour in the sharing economy. However, they mainly concentrate on consumers’ different appraisals and their personal characteristics, ignoring the roles of contextual factors or the unique features of this context. Third, although previous research has confirmed that personal characteristics and contextual factors can interact to influence consumer misbehaviour (Daunt and Harris 2011; Wirtz and Kum 2004), the literature on the sharing economy lacks insights into the moderating roles of contextual or personal variables. Based on these discussions, we conclude that existing research provides limited insights into consumer misbehaviour in the sharing economy. Against this background, this research focuses on the contextual factors that affect consumer misbehaviour in the sharing economy on the one hand, and examines the interaction of these contextual factors with consumers’ personal attributes on the other.

Extending Communicative Ecology Theory to the Sharing Economy Context

Considering that IT-enabled, access-based and self-service are three important contextual characteristics of the sharing economy (Bardhi and Eckhardt 2012), this study uses the CET lens to provide a comprehensive understanding of consumer misbehaviour in this context. Specifically, CET is a theory that focuses on media and communications and discusses technology, communication and people in a specific...
communicative ecology (Foth and Hearn 2007). According to CET, a communicative ecology is a network where people are linked via a mix of media and communicate in specific ways (Foth and Hearn 2007). A specific communicative ecology is like a forest that is composed of animals and plants, in which multiple people, media and activities need to be comprehensively examined (Seol et al. 2016). Based on this, CET provides a holistic theoretical framework that includes three layers regarding digital technology, communication format and social interaction (Foth and Hearn 2007). To be specific, the technological layer includes the devices and media enabling people’s communication and interactions; the discursive layer consists of different communication contents, such as thoughts and feelings about products or services; and the social layer includes different people and their social modes. Previous research has used the CET framework to investigate IT-mediated communicative ecologies, such as virtual communities (Gee-Woo et al. 2015), social media (Seol et al. 2016) and workplace communications (Ou and Davison 2016).

We extend this theory to our context for two reasons. First, CET is a conceptual framework in the field of media and communications for explaining the roles of different elements in online or offline networks (Gee-Woo et al. 2015; Ou and Davison 2016). In the sharing economy, consumers are part of a network on the basis of access mode; their behaviours are accordingly influenced by such a network (Bardhi and Eckhardt 2012). Hence, CET provides the needed guidance for capturing the network characteristics of the sharing economy. Second, CET provides a holistic approach for our study by incorporating technical, discursive and social layers of the sharing economy context (Foth and Hearn 2007). As discussed above, the sharing economy is featured as IT-enabled, access-based and self-service. It allows consumers to access shared objects temporally via online platforms and deliver services without the presence of employees (Bardhi and Eckhardt 2012). In such case, consumers may misbehave after evaluating online sharing platforms, sharing objects and their interactions with other people (Ma et al. 2020). As such, the CET framework which includes technological, discursive and social layers can provide an appropriate and holistic theoretical base for understanding this phenomenon. Hence, we extend the CET framework to our context to conceptualize the contextual reasons for consumer misbehaviour.

Specifically, first, the sharing economy relies on its digital platforms and online systems that facilitate communications and interactions among users (Nadeem and Al-Imamy 2020). Due to the lack of front-line staff during transaction processes, platform governance is critical to ensure successful service deliveries since it provides rules for consumers to follow and assess whether consumers’ behaviours conform to the rules through a combination of information technologies (Ma et al. 2020). Without effective governance of digital platforms, consumers tend to act selfishly at the expense of others (Ma et al. 2020). In such case, we consider platform governance as a technology-layer factor that influences consumer misbehaviour in the sharing economy. Second, the discursive layer of the sharing economy describes communication content surrounding the shared services or products. Since consumers temporarily access the shared objects, their relationships with the shared objects are ephemeral and based more on use value (Bardhi and Eckhardt 2017). This results in consumers feeling less connected to the shared objects and less willing to take responsibility for them (Atasoy and Morewedge 2018). As previous studies argued, consumers’ psychological ownership towards the objects impacts their subsequent behaviours, such as prosocial behaviours and value co-creation behaviours (Jami et al. 2021; Sadhya et al. 2020); in our context, this factor may influence consumers’ misbehaviours. Thus, this paper identifies consumer psychological ownership as the factor at the discursive layer of the theoretical framework. Third, the social layer reflecting the social interaction modes of people also exists in our context (Bardhi and Eckhardt 2012). The flexibility and fluidity of the sharing economy make the relationships between different participants looser (Bardhi and Eckhardt 2017). As there is no presence of front-line employees during service delivery processes, the anonymity of the surrounding environment may lead to more regulation risks (Schaefers et al. 2016). To verify this, prior research has proposed that in the sharing economy, anonymity is a distinguishing feature of interpersonal relationships, which may lead to consumer misbehaviour (Bardhi and Eckhardt 2012; Schaefers et al. 2016). Hence, we identify consumer perceived anonymity as the factor at the social layer in the current context.

**Contingent Role of Consumer Moral Belief**

Additionally, past research shows that consumer misbehaviour is influenced by both contextual and personal variables and their interactions (Daunt and Harris 2011; Wirtz and Kum 2004). Following this viewpoint, due to the different characteristics of consumers, they may not respond favourably or unfavourably to the service norms based only on the situation. In this case, a useful perspective is to
understand how consumers assess the ethical appropriateness of their misbehaviour (Chen et al. 2009). As moral belief among consumers varies, such variations not only directly influence consumer misbehaviour but also exert different effects between contextual factors and consumer misbehaviour (Lowry et al. 2016; Wang et al. 2021). Therefore, we propose consumer moral belief as the important personal attribute influencing consumer misbehaviour in our study.

More specifically, moral belief refers to individuals’ assessments of whether a particular behaviour is moral or immoral and correct or incorrect (Ajzen 1991). This concept reflects an individual’s sense of responsibility for performing or refusing to perform certain actions (Wang et al. 2021). The extant literature has confirmed the direct and indirect roles of moral belief in affecting individual misbehaviour in both physical and online environments. For instance, Cox et al. (1993) found that adolescents’ moral beliefs positively affect their involvement in shoplifting. Chen et al. (2009) confirmed the joint moderating effect of moral intensity and moral belief on consumers’ use of piracy. In addition, Lowry et al. (2016) proposed that consumers’ moral beliefs can inhibit their cyberbullying on social media. More recently, Wang et al. (2021) proposed that consumers’ moral beliefs can influence their personal norms, thus promoting them to disorderly park dockless shared bikes. Based on these theoretical discussions, in the current context, consumers’ moral beliefs may directly or indirectly influence their tendencies to misbehave (Roberts and Wasilewski 2012). Thus, we incorporate this personal attribute into our research model and examine its direct and indirect effects on consumer misbehaviour in the sharing economy.

Research Model and Hypotheses

Based on the CET framework, this research investigates the direct effects of platform governance, consumers’ psychological ownership towards the shared objects and their perceived anonymity in the surrounding environment on their misbehaviour in the sharing economy. In addition, drawing on the consumer misbehaviour literature, we examine the direct and indirect effects of consumers’ moral beliefs on their misbehaviour. Figure 1 shows our research model.

![Figure 1. The Research Model](image)

**Technological Layer Factor: Platform Governance**

Platform governance is defined as the policies and rules that the platform requires consumers or service providers to adhere to (Ma et al. 2020). A high level of platform governance provides more detailed guidance and rules to manage the behaviour of different parties (Xueming et al. 2021). In the sharing economy, by setting terms and conditions that indicate dos and don'ts, online sharing platforms (e.g., Zipcar and Airbnb) aim to ensure that consumers behave responsibly and avoid damaging the shared objects (Ma et al. 2020; Xueming et al. 2021).

It is an established opinion in information systems research that IT governance is an important antecedent of individuals’ performance, especially in the sharing economy (Bardhi and Eckhardt 2012; Xueming et al. 2021). As Ma et al. (2020) suggested, the rules the sharing platforms can guide consumers to be responsible for the shared properties. When consumers are informed of the rules or norms they should comply with, they have no excuse to escape the responsibility. Conversely, if they have little knowledge of
the rules, they feel more opportunistic to misbehave (Lowry et al. 2019). Thus, we present the following hypothesis:

**H1:** Platform governance is negatively related to consumer misbehaviour in the sharing economy.

**Discursive Layer Factor: Psychological Ownership**

Individuals’ psychological ownership reflects their feelings as if the material and immaterial objects are theirs (Pieters 2013). In the sharing economy, there is no transfer of ownership or joint ownership; consumers simply gain access to use objects; their psychological ownership towards the shared objects is highly contextualized (Belk 2014).

Previous research has confirmed the impacts of psychological ownership on individuals’ attitudes and behaviours towards the target entity, including public goods. For example, Atasoy and Morewedge (2018) found that consumers tend to pay more for physical goods than for digital goods, as they have more psychological ownership towards the former. Furthermore, Sadhya et al. (2020) proposed that consumer psychological ownership of shared accommodation is conducive to value cocreation. Recently, Jami et al. (2021) found that psychological ownership encourages people to engage in prosocial behaviour by enhancing their self-esteem. Individuals’ psychological ownership can lead to a positive affective reaction by establishing a link between the targeted entity and themselves, thereby facilitating the alignment of public welfare interests with their own interests (Peck et al. 2021). Based on these insightful findings, we hypothesize the following:

**H2:** Consumer psychological ownership is negatively related to consumer misbehaviour in the sharing economy.

**Social Layer Factor: Perceived Anonymity**

Anonymity is a multidimensional construct consisting of diffused responsibility, proximity, knowledge of others, confidence in the system to function and lack of identification (Lowry et al. 2013; Pinsonneault and Heppel 1997). In the current context, considering that consumers’ identities and consumption records can be tracked by sharing platforms, anonymity is manifested in the diffused responsibility, proximity and knowledge of others. Due to the self-service model, consumers can gain exclusive access to shared objects and have no need to interact with others during service delivery processes (Bardhi and Eckhardt 2017). In this case, consumers tend to ignore how others evaluate their performance, which may weaken their impulse to follow the norms in the sharing economy (Schaefers et al. 2016). Furthermore, consumers’ perceived anonymity reduces their perceived risk, costs and social connectedness, inhibits their prosocial motives and strengthens their selfish tendency (Berger et al. 2020; Sun et al. 2019). Moreover, the opportunism caused by anonymity may induce consumers to behave inappropriately, such as randomly parking shared bikes or cars (Lowry et al. 2019; Schaefers et al. 2016). We therefore hypothesize that:

**H3:** Consumer perceived anonymity is positively related to consumer misbehaviour in the sharing economy.

**Personal Factor: Consumer Moral Belief**

People can distinguish between moral or immoral and correct or incorrect based on their moral beliefs (Ajzen 1991). When a person perceives a situation as having ethical content, he or she will consider the consequences of different courses of action based on both appraisals related to costs or benefits and norms (Hunt and Vitell 1986). Moral beliefs can vary from person to person, influencing people’s intentions and behaviours (Singh et al. 2018). In the sharing economy, access-based services allow consumers to temporarily access the objects. If consumers cannot realize the impropriety of misconduct, they will misbehave for their own interests (Bardhi and Eckhardt 2012). By contrast, consumers’ high moral beliefs can inhibit them from acting at the expense of others (Wang et al. 2021). Hence, we propose that:

**H4a:** Consumer moral belief is negatively related to consumer misbehaviour in the sharing economy.

Additionally, as an important personal attribute, consumer moral belief can interact with contextual factors (i.e., platform governance, consumer psychological ownership and consumer perceived anonymity) to
influence consumer misbehaviour in our context. Specifically, consumers’ moral beliefs can reduce their intention to misbehave by reminding them what is accepted and what is unacceptable (Ajzen 1991). This may strengthen the negative effect of platform governance on consumer misbehaviour since it enhances consumers’ understanding of the rules provided by the sharing platform (Ma et al. 2020). In addition, when consumers understand that the misbehaviour towards the shared object is inappropriate, they are more likely to establish the link between the value of shared bikes and themselves (Chen et al. 2009). Such a link may enhance the positive influence of consumers’ sense of possession and motivate them to behave responsibly for public goods (Peck et al. 2021). Last, when consumers perceive a high level of anonymity that their behaviours are difficult to observe or evaluate by others, they may engage in more self-interested and unethical behaviours (Yam and Reynolds 2016). In such cases, if consumers have a stronger awareness of right and wrong, they will tend to avoid misbehaviour based on their consideration. Hence, we hypothesize that:

H4b: Consumer moral belief positively moderates the relationship between platform governance and consumer misbehaviour in the sharing economy.

H4c: Consumer moral belief positively moderates the relationship between consumer psychological ownership and consumer misbehaviour in the sharing economy.

H4d: Consumer moral belief negatively moderates the relationship between consumer perceived anonymity and consumer misbehaviour in the sharing economy.

Research Methodology and Plan

To test the research model, we plan to conduct a professional online survey. We will use a third-party online panel to reduce social desirability bias. We plan to choose bike-sharing as the research context, as it is a typical sharing economy mode that easily induces consumer misbehaviours. The measurements of key constructs are as follows. First, we measure platform governance using the scale of Ma et al. (2020). Second, we will measure consumer psychological ownership by following the study of Lee and Chen (2011). Third, we will adapt items from Lowry et al. (2013) to measure consumer perceived anonymity. Fourth, we will measure consumer moral belief based on the study of Lowry et al. (2016). Last, we will measure consumer misbehaviour by gauging the frequency with which he or she misbehaved. In addition to the above variables, we will control for respondents’ characteristics of gender, age, level of education, income, time using shared bikes and frequency of using shared bikes.

In sum, although consumer misbehaviour is common in the sharing economy, the literature on this issue is still in its infancy. Different from existing studies that either focused on consumers’ different appraisals or discussed their personal attributes, this research reveals the mechanism under which contextual factors influence consumer misbehaviour in the sharing economy. This research will contribute to the literature on consumer dark side and the communicative ecology theory. In addition, the results of this study will provide sharing economy firms with strategies for reducing consumer misbehaviour.

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