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# A Model of Customer Trust in Sharing Economy-Driven Ride-Sharing Platforms Involving Psychological Contract Violation and Recovery

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# Abstract

This paper develops and tests a model of consumer trust in a sharing economy-enabled ride-sharing platform from the perspective of psychological contract violation (PCV) and subsequent service recovery efforts of the platform. Based on a mixed-design experiment, customers evaluate various hypothetical PCV and recovery scenarios and complete a survey on their perspectives of trusting beliefs and trusting intentions to the platform. We aim to prove that the type and magnitude of PCV can moderate the relationship between service recovery attributes and customers' trust in the ridesharing platform. In addition, consumer habit also has a moderating effect on the relationship between consumers' trusting beliefs and trusting intention. The findings contribute to the understanding of customers trust and evaluations of PCV encounters and service recovery. Practically, the results of this research can provide ride-sharing platform managers with practical guidelines for providing appropriate recovery efforts to a PCV encounter.

### Keywords

Psychological contract violation, trust, sharing economy, recovery attributes.

# Introduction

The widespread use of ride-sharing platforms has sparked a mass of debates and attracted widespread attention over the last few years. The sharing economy encourages customers to share private property between strangers (Richardson 2015). Without trust in the ridesharing platforms, customers may worry that their rights will be jeopardized. Therefore, trust has become a pivotal issue in the success of a sharing economy-enabled ride-sharing business model. Trust refers to a 'psychological state comprising the intention to accept vulnerability based on positive expectations of the intentions or behavior of another' (Rousseau et al. 1998; McKnight et al. 2002). In the context of ride-sharing, trust is based on consumers' willingness to be vulnerable to the service of the ride-sharing platforms based on consumers' psychological expectations. The psychological contracts have been recently shown to facilitate transactions in online markets (Pavlou and Gefen 2005). Psychological contract theory argues that one party believes that the other party has an obligation to perform certain behaviors. Therefore, the violation of psychological contract is likely to have a negative impact on trust. When a psychological contract violation (PCV) occurs, successful

service recovery plays a crucial role in building customer trust, enhancing customer satisfaction and preventing customer switching (Sparks et al. 2016).

Previous studies have examined trust in ride-sharing platforms from several different perspectives, such as the impact of online reviews on trust (Cheng et al. 2019), different targets of trust (Hawlitschek et al. 2016), website regulations (Ye et al. 2011) and other factors. Moreover, as PCV occurs more frequently in reality, the recovery behavior of the platforms will undoubtedly lead to the change of consumer trust and even satisfaction. However, previous research of trust in the sharing economy mainly focused on the impact of platform attributes and other elements of platform design. Few studies have investigated a theory-driven model of customers trust from the perspective of PCV and the service recovery after violation. Therefore, this study sets out to investigate the impact of PCV and service recovery on consumer trust in the context of ride-sharing business model. Moreover, the model provides a framework for investigating how the PCV context (type versus magnitude) and recovery attributes (reimbursement, response speed and apology) influence customers' trusting beliefs and trusting intention. We aim to answer the following questions:

Research question 1(RQ1): How could different service recovery attributes of ride-sharing platforms influence consumers' trust in the platform?

Research question 2(RQ2): How could the type and magnitude of the violation moderate the relationship between psychological contract violation (PCV) and consumer trust in the ride-sharing platform?

# **Conceptual Framework and Research Model**

### Trusting beliefs and trusting intention

Previous research has established that trusting beliefs and trusting intention together constitute trust (Rousseau et al. 1998). Trusting beliefs are the trustors' perceptions of the trustworthiness of the trustees (McKnight et al. 2002). Investigators have conducted studies on several similar beliefs –integrity, benevolence, competence and predictability, which have been developed into other similar beliefs about trust (McKnight et al. 1998). Trusting intentions refers to the willingness to make oneself vulnerable to another with risk (Kim et al. 2004). Therefore, higher trusting beliefs may lead consumers to be more willing to trust in the service provider, which is to say, trusting beliefs have a positive impact on consumers' trusting intentions. Recently investigators have also examined the moderating effects of consumers' habit on the relationship between consumer trust and behavioral intention (McKnight et al. 2002). Thus, we propose the following hypotheses:

H1: Consumers' trusting beliefs in the ride-sharing platform will be positively related to consumers' intention to trust the platform.

H2: Consumers' habit of using a ride-sharing platform will moderate the relationship between trusting beliefs and trusting intention.

### Effects of recovery attributes on consumer trust

It is now well established from previous studies that *reimbursement*, *response speed* and *apology* are important attributes in the business process and can easily be manipulated by business managers (Wang et al. 2011). Therefore, we intend to examine the influence of these three recovery attributes on consumers' trust in this study. *Reimbursement* refers to economic compensation provided by the platform to make up for the violation. Previous research has established that compensation is the most important recovery effort related to customers' perception of trust (Sirdeshmukh et al. 2002). For example, the ride-sharing platform will give users some discount coupons or vouchers after they complain. In the same way, a high speed of *recovery response* and an *apology* from the service provider can also enhance consumers' trusting beliefs, such that:

H3: Reimbursement will have a positive effect on consumers' trusting beliefs to the platform.

H4: Response speed to the violation will have a positive effect on consumers' trusting beliefs to the platform.

H5: An apology will have a positive effect on consumers' trusting beliefs to the platform.

### Effects of the PCV context on consumer trust

Contract is an important context in the transaction process. Despite its common use in economic and legal aspects, contract is also used in other disciplines, such as psychology (Pavlou and Gefen 2005). Previous studies mostly define psychological contract as a set of beliefs that one party believes that the other party is obligated to perform certain behaviors (Morrison and Robinson 1997). PCV may occur when one fails to fulfill the obligations that the other one expects from the psychological contract.

Extensive research has shown that customer evaluations of PCV and service recovery depend on the type and magnitude of violation (Kim et al. 2004). According to different violation antecedents, PCV can be divided into two types: *reneging* and *incongruence* (Pavlou and Gefen 2005). *Reneging* refers to an explicit and unarguable violation of psychological contract. For example, ride-sharing drivers deliberately treat passengers with a bad attitude or refuse an order. *Incongruence* refers to a PCV caused by two parties' different understandings about their contractual obligations (Morrison and Robinson 1997). For example, customers and platforms have different expectations of the service provided by the platform. We predict that customers will evaluate recovery efforts differently depending on the interaction effects between different violation types (*reneging* versus *incongruence*) and recovery attributes (*reimbursement, response speed* and *apology*), such that:

H6a: *Reimbursement* will have a different effect on consumers' trusting beliefs to the platform between *reneging* and *incongruence*.

H6b: *Response speed* will have a different effect on consumers' trusting beliefs to the platform between *reneging* and *incongruence*.

H6c: An *apology* will have a different effect on consumers' trusting beliefs to the platform between *reneging* and *incongruence*.

Consistent with the moderating impacts of violation type, the magnitude of violation (*high* versus *low*) is expected to have a moderating effect on the relationship between service recovery and the consumers' trust beliefs. According to social exchange theory (Adams 1965), resources should be changed in balanced amounts. Therefore, customers' loss from a high magnitude of PCV should be balanced with their perceived gains from the service providers' recovery. Thus, we propose the following hypotheses about the interaction relationship between violation magnitude and recovery attributes.

H7a: Reimbursement will have a different effect on consumers' trusting beliefs to the platform between *high magnitude* and *low magnitude* of violation.

H7b: Response speed will have a different effect on consumers' trusting beliefs to the platform between *high magnitude* and *low magnitude* of violation.

H7c: An apology will have a different effect on consumers' trusting beliefs to the platform between *high magnitude* and *low magnitude* of violation.





Figure 1. A model of customer trust with PCV and service recovery

# **Research Design**

### Sample

This study is conducted in a ride-sharing context. The sample is composed of 400 customers who have previously experienced using a ride-sharing platform in China. To ensure that they had prior experience with a ride-sharing platform, they are asked to name a platform that was used in the previous three months. Data will be collected using individually completed questionnaires in different groups. Each questionnaire is distributed to the customers to evaluate their perceptions regarding the PCV of the ride-sharing platform, as well as the platform's subsequent recovery efforts.

## Experimental design

A mixed-design experiment using a survey method is adopted in this study to ensure the testing of the customer reaction to PCV and service recovery encounters. Using a recall-based design (Smith et al. 1999), customers answer questions and evaluate a ride-sharing platform scenario, which describes a PCV and service encounter of the ride-sharing platform. To select a representative PCV event, we undertook extensive pretests. One advantage of using scenarios is that they can reduce the difficulties in observation and enactment of the PCV and recovery incidents, including the expense and time involved, ethical concerns (Smith et al. 1999). Furthermore, the use of scenarios can eliminate biases resulting from memory lapses and consistency factors.

The mixed-design experiment consists of a  $2 \times 2$  between-subjects design, which manipulated the type (*reneging* versus *incongruence*) and magnitude (*high* versus *low*) of PCV. Each customer was assigned randomly to one of the four scenarios. Figure 2 below is an example of two PCV scenarios in this experiment. Using a within-subjects design, the design also manipulated three service recovery attributes: reimbursement, respond speed and apology. Reimbursement was varied at three levels (*high*, *medium* and *low*), expressed as amount of compensation. Response speed was manipulated at two levels (*speedy* versus *delayed*), as were apology (*apology* versus *denial*). The within-subjects task was based on a  $3 \times 2 \times 2$  design and made for 12 recovery profiles. To eliminate the complexity of the experiment and make the study more manageable, we conducted a conjoint analysis and resulted in a subject of 8 profiles.



You place an order on this ride-sharing platform, and you find that there are many passengers waiting in line and you wait for ten minutes before your order is accepted.

#### PCV scenario 2

You place an order on this ride-sharing platform, and the driver arrives at the appointed time. A fter getting on the car, the driver complains that the road is not smooth and his attitude is bad during the whole journey.

### Figure 2. An example of PCV scenario

To begin with this experiment, we deliver the questionnaires to the customers and ensure that each customer can see only one of the four possible PCV conditions. Each PCV condition composed of 8 profiles resulting from the conjoint analysis. Then customers answered a series of questions regarding their prior experience with any ride-sharing platform (e.g., data of last visit, frequency). Next, customers were asked to imagine a reuse of the platform and were presented with a hypothetical scenario in which a PCV occurred. After responding to a series of questions regarding their evaluations of the PCV, customers were asked to evaluate the recovery efforts of the platform according to a set of evaluating instructions. Finally, they answered questions about their trusting beliefs and trusting intentions towards the ride-sharing platform and provided their demographic information.

# **Conclusion and Future Research**

The purpose of this research is to investigate consumer trust in the sharing-economy driven ride-sharing platforms from the perspective of PCV and recovery attributes. Firstly, this work contributes to our existing knowledge of consumer trust in the sharing economy driven era and extends trust research to marketing and management field. Secondly, the study broadens the scope of PCV and trust study in the ride-sharing context by conducting a mixed-design experiment. Practically, the findings of this research enable ride-sharing platform managers to have a better understanding of consumers' trust in the platform. By allocating the recovery resources properly, platform managers can maximize returns in terms of consumer trust and train employees to develop proper service recovery procedures and enhance consumer trust.

Further work should focus on the data collection and data analysis based on the mixed-design experiment and the hypotheses. Furthermore, given the limitation of time and financial constraints, the sample size of our current study design is not large enough. Further research should be carried out with a larger sample size to make our results more robust.

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