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# Understanding the Drivers' Continuous Intention of Online Car Booking Service

Chuan Luo

*Southwestern University of Finance and Economics, Chengdu, [luochuan@swufe.edu.cn](mailto:luochuan@swufe.edu.cn)*

Yuting Wang

*Southwestern University of Finance and Economics, Chengdu, [450510355@qq.com](mailto:450510355@qq.com)*

Juelin Ye

*Southwestern University of Finance and Economics, Chengdu, [yeeejl@163.com](mailto:yeeejl@163.com)*

Zhenyang Tang

*Southwestern University of Finance and Economics, Chengdu, [tzyai3@163.com](mailto:tzyai3@163.com)*

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## UNDERSTANDING THE DRIVER'S CONTINUOUS INTENTION OF ONLINE CAR BOOKING SERVICE

Chuan Luo, Southwestern University of Finance and Economics, Chengdu, luochuan@swufe.edu.cn

Yuting Wang, Southwestern University of Finance and Economics, Chengdu, 450510355@qq.com

Juelin Ye, Southwestern University of Finance and Economics, Chengdu, yeeejl@163.com

Zhenyang Tang, Southwestern University of Finance and Economics, Chengdu, tzyai3@163.com

### ABSTRACT

Based upon commitment theory, this study explores the effect of organizational commitment on drivers' continuous intention to provide online car booking service. We further investigate the antecedent factors of the drivers' organizational commitment. Online survey is utilized to collect data from the drivers who are providing service current from various companies in China. The results show that affective commitment and normative commitment serve as the crucial determinants to affect drivers' continuous intention. Besides, social interaction ties with company, with customers, drivers' rewards, as well as their sense of self-value cultivate their organizational commitment perception. We then propose our theoretical and practical implications according to the findings of this study.

*Keywords:* Online car booking service, organizational commitment, social interaction ties, rewards, sense of self-value, continuous intention.

### INTRODUCTION

In 2015, Premier Keqiang Li announced the guidance for promoting Internet+ action plan, the development of Internet+ convenient traffic is one of the crucial domains in this plan. Following this guidance, online car booking service has rapidly expanded in many areas in China. Especially, in July 2016, Chinese government gave the car booking service legal status. This provides a new developing opportunity for related companies who operate online car booking business, such as Didi, Uber, Yidao, etc. Obviously, the success of the online car booking business requires abundant drivers to provide their services to the customers actively and continuously, it will also determine the survivals of the related companies. Consequently, exploring the determinant factors of the drivers' continuous intention to provide online car booking service is an important and interesting research topic in electronic commerce domain. However, according to our best knowledge, seldom of previous studies have been conducted to investigate this issue; therefore, this study will endeavor to fill in this research gap. We plan to explore the crucial impact factors which may determine the drivers' continuous service intention with empirical data. We consider the findings of this research will not only provide practical implications to the practitioners of this business, but also can provide significant theoretical contributions to electronic commerce researchers, since this study will help them further understand the operating mechanism of this new business mode.

In current online car booking business mode, the contract relationship between the drivers and the companies is loose. The drivers' service intentions are based upon voluntary principle, which are out of the companies' control; they can easily join in any companies' platforms to provide service, and also can freely leave them without any legal risk. Therefore, we regard these platforms as loose virtual organizations. Previous studies [6][21] consider that in a loose virtual organization, the members' intentions and behaviors will be determined by their emotional connections to it. And Allen and Meyer [1][15] consider that members' emotional and psychological connections to the virtual organization can be measured by their organizational commitment. Many prior studies [19][24] also have empirically confirmed that organizational commitment would significantly affect members' intentions and behaviors in various kinds of virtual organizations. Following this viewpoint, this study predicts that the drivers' organizational commitment to the platform will determine their intentions to provide online car booking service. Furthermore, Allen and Meyer [1][15] also believe that various kinds of variables, which may derive from the organizational structure, work experience, organizational socialization, etc., can serve as the potential antecedents of organizational commitment, thus, this study will also try to explore what factors can be the impact factors to affect drivers' commitment perception in online car booking virtual organizations.

The rest part of this paper is organized as follows. First we introduce the theoretical background of this study. We then propose our research model and hypotheses. Then we introduce the methodology of this study. Next we will describe the data analyses and the statistic results. Finally, we will discuss the theoretical and practical implications of this paper.

### COMMITMENT THEORY

Organizational commitment is defined as "the psychological and emotional state that binds the individual to an organization" [16]. Allen and Meyer [1][2] consider that organizational commitment contains 3 dimensions, named as affective, continuance and normative commitment. The affective commitment indicates the organization members' affective or emotional attachment to the organization, and the strongly committed individuals will identify with, involve in, and enjoy membership in the organization [7][17]. Continuance commitment implies that organization members committed to a course of action because they

consider that they can get some benefit if to do so, and will bear a cost without this action, or because of the lack of alternatives [9]. And the normative commitment means that organization members perceive a moral obligation to pursue the course of action, they believe it is the right thing they need to do [23]. Various previous studies [3][7][19] have already confirmed the significant effects of these 3 dimensions of commitment on individuals' intentions and behaviors in various research contexts, thus approved the validity of commitment theory. Therefore, this study will utilize this theory as the theoretical foundation, to test how the organizational commitment affects drivers' continuous intention to provide online car booking service.

### RESEARCH MODEL AND HYPOTHESES

Based Upon Allen and Meyer's [1][2] commitment theory, this study predicts that the 3 dimensions of organizational commitment will significant affect drivers' continuous intention to provide online car booking services to the customers. In the virtual organizations such as online car booking companies (e.g., Didi, Uber, Yidao, etc), the drivers' affective commitment reflects their emotional connections to the organizations, it is the psychological force which binds the drivers to the organizations [7]. Thus, if the drives perceive a strong affective commitment to the companies, they consider they are a part of the organization, thus, they may have a strong continuous intention to provide online car booking service to the company's customers. The drivers' continuance commitment is the perception regarding their cost-based calculation, they will balance their benefit and cost before making leaving or continuance decision. If they have already invested much time, energy, or money in a company, they will perceive a high continuance commitment; they may suffer high economic or social cost if they stop to provide online car booking service through the company's platform [4]. Thus, we conjecture that continuance commitment will positively affect their continuous intention to provide service. Finally, we predict that drivers' normative commitment also can significant affect their continuous intention, this is because that normative commitment implies the drivers' sense of moral obligation, if they perceive strong moral obligation to the company, they are more likely to from a strong intention to continue to cooperate with the company and provide online car booking service to the customers since they consider that they ought to do so [11]. Thus, we propose the following hypotheses.

H1. Affective commitment has a positive effect on drivers' continuous intention to provide online car booking service.

H2. Continuance commitment has a positive effect on drivers' continuous intention to provide online car booking service.

H3. Normative commitment has a positive effect on drivers' continuous intention to provide online car booking service.

Organizational commitment represents the members' emotional connection to the organization, Allen and Meyer [1][15] believe it can be cultivated through various kinds of variables, such as the organization' structure and socialization, and members' work experience, etc. Following this line of research, and based upon the actual characteristics of online car booking business mode, this study proposes that the drivers' social interaction ties with the company, with the customers, and with other drivers, their rewards through this work, as well as their sense of self-value, to be the antecedent factors to affect their perception of organizational commitment.

Social interaction ties indicate the strength of the relationship, such as the amount of time spent and the frequency of communications, between or among different kinds of actors in an organization [8]. Previous studies [18][22] have empirically confirmed that the social interaction ties can be the significant impact factors to affect individuals' psychological and emotional connections to the organizations, and finally determine their intentions and behaviors in it. Following this viewpoint, this study predicts that the drivers' social interaction ties will affect their organizational commitment. We consider that strong social interaction ties will help them identify with their membership in the company; these ties will also let them suffer high cost since they will lose their social capital if leaving the company; besides, drivers with strong interaction ties may also perceive strong moral obligation to provide their service continuously. In general, we predict social interaction ties have significant effects on all of the 3 dimensions of commitment.

Especially, in online car booking business mode, there are various kinds of actors, such as the company, the drivers as well as the customers. Consequently, the drivers can build, maintain and develop social interaction ties with the company, with other drivers, as well as the customers. Therefore, in this study, we propose that driver's social interaction ties with the company, with other drivers, as well as with the customers will be the antecedent factors to affect their affective, continuance and normative commitment perception.

H4. Social interaction ties with company have positive effects on drivers' affective commitment (H4a), continuance commitment (H4b), and normative commitment (H4c).

H5. Social interaction ties with other drivers have positive effects on drivers' affective commitment (H5a), continuance commitment (H5b), and normative commitment (H5c).

H6. Social interaction ties with customers have positive effects on drivers' affective commitment (H6a), continuance commitment (H6b), and normative commitment (H6c).

Rewards indicate the benefits drivers obtained for their contributions in the company [12], such as increased payment, bonuses, job security, etc. Obviously, high rewards will let the drivers perceive they may suffer high cost if they stop to cooperate with the company and no longer provide online car booking service to the customers. Therefore, we predict rewards will strongly associate with drivers' continuance commitment. Finally, we consider that the drivers' sense of self-value will strongly affect their normative commitment. Sense of self-value indicates that the drivers perceive their work and service is valuable to the organizations and other people [5]. If they perceive a high self-value of their work, they may feel a strong moral obligation to continue to provide their service, thus, their sense of self-value may increase their normative commitment to the company.

H7. Rewards have positive effects on drivers' continuance commitment

H8. Sense of self-value has positive effect on drivers' normative commitment.

Figure 1 shows the research model of this study.

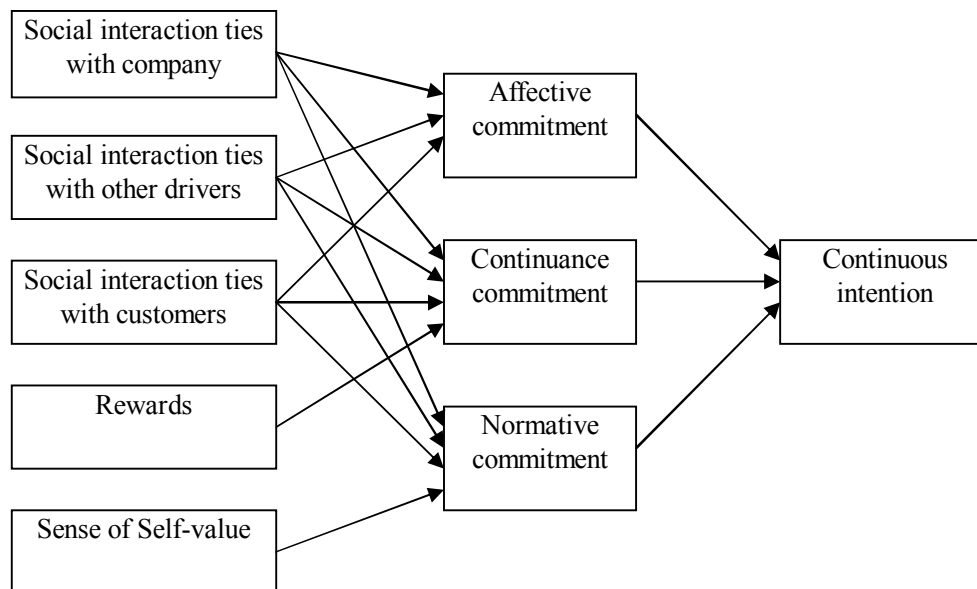


Figure 1: Research Model

## METHODOLOGY

Online survey is used to collect data from the drivers who are now providing online car booking service from various companies such as Didi, Uber, Yidao, etc. We believe the field data from the drivers can improve the reality of the findings of this study. The questionnaire items for each construct in our research model are adapted from previous studies [1][5][8][12][14][19] with slight amendment to fit our research context. We employed 12 undergraduates to help us contact with the drivers and invite them to fill in the questionnaire, each driver who agreed to join in would get 20 RMB reward. This data collection work lasted 1 month, finally we get 233 samples, they are from more than 20 cities in mainland China, and more than 90% of them are from Didi and Uber.

## DATA ANALYSIS AND RESULTS

Confirmatory factor analysis (CFA) is utilized to test the measurement model. Fornell and Larcker [10] suggest that Cronbach's alpha, composite reliability, average variance extracted (AVE), and item loadings can be utilized to assess the convergent validity. As shown in table 1, we confirmed that the values of Cronbach's alpha are larger than 0.8, the composite reliability values are larger than 0.9, the AVE values are larger than 0.7, and the loadings of all the construct items are larger than 0.8. These results confirm the high convergent validity of our data. We further tested the discriminant validity of the constructs in our research model. Table 2 shows, the AVE square roots of all the constructs are much higher than the cross-correlations; it approves the high discriminant validity.

Tables 1: Psychometric properties of measurements

Construct	AVE	Composite Reliability	Cronbach's Alpha	Item	Item Loading
Social interaction ties with company (SICO)	0.850	0.945	0.912	Item1	0.915
				Item2	0.927
				Item3	0.924
Social interaction ties with other drivers	0.812	0.956	0.942	Item1	0.872
				Item2	0.914

(SID)				Item3	0.900
				Item4	0.908
				Item5	0.911
Social interaction ties with customers (SICU)	0.736	0.933	0.910	Item1	0.874
				Item2	0.855
				Item3	0.813
				Item4	0.896
				Item5	0.849
Rewards (RWD)	0.788	0.937	0.910	Item1	0.855
				Item2	0.912
				Item3	0.908
				Item4	0.876
Sense of Self-value (SSV)	0.809	0.944	0.922	Item1	0.908
				Item2	0.903
				Item3	0.888
				Item4	0.899
Affective Commitment (AC)	0.752	0.924	0.890	Item1	0.878
				Item2	0.882
				Item3	0.830
				Item4	0.878
Continuance Commitment (CC)	0.791	0.938	0.912	Item1	0.901
				Item2	0.917
				Item3	0.879
				Item4	0.859
Normative Commitment (NC)	0.793	0.939	0.912	Item1	0.903
				Item2	0.907
				Item3	0.905
				Item4	0.898
Continuous Intention (CI)	0.816	0.947	0.925	Item1	0.900
				Item2	0.930
				Item3	0.908
				Item4	0.821

Table 2: Square root of AVE and cross-correlations

	SICO	SID	SICU	RWD	SSV	AC	CC	NC	CI
SICO	0.922								
SID	0.438	0.901							
SICU	0.622	0.349	0.858						
RWD	0.493	0.180	0.441	0.888					
SSV	0.399	0.526	0.401	0.346	0.899				
AC	0.604	0.310	0.604	0.562	0.548	0.867			
CC	0.586	0.261	0.545	0.485	0.309	0.556	0.889		
NC	0.582	0.287	0.604	0.593	0.422	0.739	0.618	0.891	
CI	0.562	0.444	0.572	0.524	0.638	0.749	0.499	0.778	0.903

Smart PLS 2.0 [20] was utilized to test the hypotheses in our research model. In general, the 3 dimensions of commitment explained 67.2% of the variances of continuous intention, and the 5 independent variables explained 45.1%, 43.1% and 45.9% of the variances for affective, continuance, as well as normative commitment respectively. These results approved the validity of our research model.

We find that affective commitment and normative commitment can significantly affect drivers' continuous intention, with  $\beta=0.391$ ,  $P<0.01$ ;  $\beta=0.510$ ,  $P<0.01$  respectively, this confirms our H1 and H3. However, continuance commitment has no significant effect on continuous intention, thus H2 is not supported. Besides, we find that social interaction ties with company can significantly affect all of the 3 dimensions of commitment, with  $\beta=0.364$ ,  $P<0.01$ ;  $\beta=0.330$ ,  $P<0.01$ ;  $\beta=0.317$ ,  $P<0.05$  respectively, thus H4 is supported; social interaction ties with other drivers have no significant effect on all the 3 dimensions of commitment, thus H5 is not supported; social interaction ties with customers can significantly affect all of the 3 dimensions of commitment, with  $\beta=0.371$ ,  $P<0.01$ ;  $\beta=0.249$ ,  $P<0.05$ ;  $\beta=0.357$ ,  $P<0.01$  respectively, thus H6 is supported. Rewards can significantly affect continuance commitment, with  $\beta=0.214$ ,  $P<0.05$ , thus H7 is supported. Sense of self-value can significantly

affect normative commitment, with  $\beta=0.193$ ,  $P<0.05$ , thus H8 is supported. All the analyses results are summarized in table 3.

Table 3: Hypotheses test

Path	$\beta$	T	Hypotheses
AC→CI	0.391**	3.015	H1 (supported)
CC→CI	-0.034	0.398	H2 (not supported)
NC→CI	0.510**	4.146	H3 (supported)
Dependent variable: CI, $R^2=0.672$			
SICO→AC	0.364**	2.887	H4a (supported)
SID→AC	0.021	0.247	H5a (not supported)
SICU→AC	0.371**	3.284	H6a (supported)
Dependent variable: AC, $R^2=0.451$			
SICO→CC	0.330**	2.388	H4b (supported)
SID→CC	-0.009	0.091	H5b (not supported)
SICU→CC	0.249*	2.000	H6b (supported)
RWD→CC	0.214*	1.743	H7 (supported)
Dependent variable: CC, $R^2=0.431$			
SICO→NC	0.317*	2.199	H4c (supported)
SID→NC	-0.078	0.669	H5c (not supported)
SICU→NC	0.357**	2.751	H6c (supported)
SSV→NC	0.193*	1.706	H8 (supported)
Dependent variable: NC, $R^2=0.459$			

Note: \* $P<0.05$ , \*\* $P<0.01$

## DISCUSSION AND CONCLUSION

This study utilizes commitment theory [1][2] as the theoretical foundation, to test how the organizational commitment affect drivers' continuous intention to provide online car booking service to the customers. According to our best knowledge, this is the initial study which adopts commitment theory in this new electronic business mode. We consider it is the most important theoretical contribution of this study. It can help electronic commerce researchers understand how organizational commitment affects drivers' continuous intention. We find that affective commitment and normative commitment can significantly affect the drivers' continuous intention, whereas continuance commitment has no effect. In general, it confirms the Allen and Meyer's [1][2] declaration that organizational commitment can be the crucial determinant of individuals' subsequent intentions and behaviors in a virtual organization, thus approves the validity of commitment theory in our new research context. The findings of this study also demonstrate that different dimensions of organizational commitment may have different effects.

We also explore the antecedent factors of the 3 dimensions of organizational commitment. We find that social interaction ties with company, and with customers, have significant effects on all the 3 dimensions of commitment, whereas social interaction ties with other drivers cannot affect the organizational commitment. We consider this is the second theoretical contribution of this study. We confirm the crucial role of social interaction ties since they can help drivers cultivate their organizational commitment to the company; however, not all kinds of social ties are effective. This finding implies that in some complex electronic business modes which involve various kinds of actors, social interaction ties with different actors may have different effects on individuals' intentions or behaviors. Therefore, exploring the crucial social interaction ties in these complex electronic business modes is an interesting and important research topic for electronic commerce researchers.

We also approve the significant role of rewards on drivers' continuance commitment perception, as well as the sense of self-value on their normative commitment perception. This is the last theoretical contribution of this study. These findings demonstrate that the drivers' material and spiritual satisfactions also serve as the key determinants to affect their organizational commitment perception, which will finally affect drivers' continuous intention to provide online car booking service.

This study also has some practical implications for the companies involving online car booking business. The findings of this study empirically confirm the crucial role of affective commitment and normative commitment on drivers' continuous intention to provide online car booking service. Thus, the managers of online car booking companies need to adopt relevant strategies to cultivate these 2 dimensions of organizational commitment. This study also identifies the significant antecedent factors of these 2 dimensions of commitment, which will guide the managers to implement corresponding tactics. First, they can design various kinds of communication channels for the drivers to contact with the company's staff as well as the customers. Such as, they can incorporate instant messenger into their websites or APP, it will facilitate the communication among the drivers, customers and the company. Besides, they can appreciate the drivers for their service to the customers in various patterns of manifestation, which will improve the drivers' sense of self-value. In general, we believe adopting these tactics will effectively cultivate the

drivers' organizational commitment, through these ways to encourage them to provide online car booking service continuously.

In conclusion, this study utilizes field data collected from the drivers in various companies in China; to explore what factors can affect their continuous intention. We confirm the crucial role of organizational commitment in our research context. We also identify the key antecedent factors which can cultivate the drivers' commitment perception. The finding of this study will help scholars understand the mechanism of drivers' continuous intention to provide service; it also can guide the managers to implement precise management strategies to keep the drivers, and finally ensure the survival and development of the online car booking companies.

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