



Research on the Influencing Factors of User Stickiness of Gig Platforms in the Context of Gig Economy

Qihan Zhang^{1st,a}, Li Li*

School of Economics and Management, Nanjing University of Science and Technology,
Nanjing, 210094, China

^a852460005@qq.com, *lily691111@126.com

Abstract. This study explores the factors affecting the user stickiness of gig platforms. Based on the SOR theory to construct a model of the factors affecting the user stickiness of gig platforms. A questionnaire survey was used to collect 332 valid data, and the data were analyzed using SPSS and AMOS. The results show that peer communication, platform reputation, usefulness and usability affect user satisfaction and trust. User satisfaction and trust affect user stickiness and play a mediating role in it. This study can provide implications for gig platforms to enhance the stability of labor supply.

Keywords: Gig Economy; Gig Platforms; User Stickiness; SOR model

1 Introduction

The gig economy is a very fast-growing sector of the economy and an important front in solving the employment problems in China. Ali Research Institute predicts that 400 million people in China are expected to become freelancers in the gig economy by 2036. The development of the gig economy has brought about a growing group of odd-jobs. Coupled with the development of Internet technology, the development of gig platforms has become an inevitable trend. Gig platforms first arose in developed capitalist countries. Research on gig platforms has centered on three main areas, namely, opportunities and advantages, risks and challenges, and coping strategies and programs. The objects of the study are mainly drivers of online car platforms and delivery workers of takeaway platforms. In this study, the hourly jobs of the gig platforms will be selected as the survey object, and the positions involve sorters, yardmen, forklift workers and so on.

The flexibility of the employment choices of odd-job workers can create instability in labor supply for gig platforms. Against the backdrop of competition with labor intermediaries and fierce homogenization of gig platforms, gig platforms face the problems of insufficient user stickiness and poor willingness to continue using them. If a gig platform fails to attract and retain a large number of practitioners, it may often face two problems. Firstly, sometimes there is a labor shortage problem, which makes it difficult for employing enterprises to recruit workers and discourages employing

enterprises from using the platform. Secondly, there will be a labor surplus problem. Both the scarcity of employment opportunities for laborers and the reduction of job opportunities will discourage the participation of users of gig platforms. This will affect the platform's ability to survive and grow in the long term. Therefore, how to prevent user loss and enhance user stickiness has become an urgent problem. This study will explore the influencing factors of user stickiness of gig platforms and construct a theoretical model based on SOR in order to provide feasible suggestions for the development of gig platforms.

2 Research hypothesis

The SOR model has been widely used to measure the impact of environmental factor stimuli on individual behavior^[1], Lau^[2], Hung^[3] found that communication between relatives, friends, and coworkers can have a significant impact on an individual's choices and behaviors. Based on this, the following hypothesis is proposed:

H1a: Peer communication has a significant positive effect on user satisfaction.

H1b: Peer communication has a significant positive effect on trust.

Xuhui Wang and Yifan Guo find that platform reputation significantly enhances user relationship trust and user relationship satisfaction^[4]. Based on this, the following hypothesis is proposed:

H2a: Platform reputation has a significant positive effect on user satisfaction.

H2b: Platform reputation has a significant positive effect on trust.

Davis believes that the easier a system feels to use, the more likely it is to be accepted by users^[5]. Bhattacharjee considers perceived usefulness to be the existence of an expectation on the part of the users themselves that they will benefit from the use of a certain system^[6]. Based on this, the following hypothesis is proposed:

H3a: Usefulness has a significant positive effect on user satisfaction.

H3b: Usefulness has a significant positive effect on trust.

H4a: Usability has a significant positive effect on user satisfaction.

H4b: Usability has a significant positive effect on trust.

Trust and user satisfaction are important antecedents of user stickiness, and some studies have shown that it has a positive impact on user stickiness^{[7][8]}. Based on this, the following hypothesis is proposed:

H5: Trust has a significant positive effect on user stickiness.

H6: User satisfaction has a significant positive effect on user stickiness.

3 Empirical analysis

3.1 Data collection

The questions in the questionnaire of this study were designed based on the Likert 5-point scale. Measurement question items were formed after referring to Bosnjak^[9], Han B^[10], Shou^[11] and others' classic scales combined with modifications in this study. The measurement question items for the variables are shown in Table 1.

Table 1. Questionnaire Measurement Items

Variables	Measurement Items
Peer Communication	My friends support me in working on the platform
Platform Reputation	My family supports my work on the platform I'll talk to my coworkers about the advantages of the platform I tend to go for more recognizable platforms I would go with a platform that is recommended by a lot of people
Usefulness	I would prefer a platform with positive comments The platform has allowed me to increase my income compared to before The platform will provide me with job opportunities Overall, I found the platform to be useful to me
Usability	The platform has many download channels and is easy to install The platform is designed with a clear and easy-to-understand interface It doesn't take long to learn how to use the platform
Trust	I believe the platform is more trustworthy than others I trust that the platform will release the service fees in a timely manner I trust that the platform will properly resolve the problems I encountered
Satisfaction	I am satisfied with the daily settlement of the platform service fee I am satisfied with the interface and operational design of the platform I am satisfied with the speed with which the platform resolved the issue
User Stickiness	I will continue to use the platform I would recommend the platform to others I think of the platform first when I have a job requirement

This study was conducted by distributing questionnaires both online and offline. Online was done using questionnaire star and offline was done by going to the workplace. A total of 400 questionnaires were distributed. Excluding short answer time and regular answers, a total of 332 valid questionnaires were finally obtained, with a return rate of 83.0%. The respondents of this study were hourly workers. The demographic characteristics of the valid samples of this survey are shown in Table 2.

As we can see from the table, most of the people who choose to engage in odd jobs have their own jobs, and they only take this job as a part-time job. Moreover, they generally have a low level of education, and their age is concentrated between 20 and 50 years old. Most of these people are unable to find a job after graduation or their families are under great pressure, so they need to work two jobs to ease the financial pressure on their families. Factors such as the simplicity of casual work, low entry barriers, free working hours and unrestricted working locations are what attract

people to join the group of casual laborers. However, at the same time, the instability of casual labor itself also brings great challenges to the development of casual labor platform.

Table 2. Basic Information of the Survey

Item	Category	Frequency	Percentage
Type of work	Full-time job	123	37.0%
	Part-time job	209	63.0%
Gender	Male	178	53.6%
	Female	154	46.4%
Age	Under 20 years old	19	5.7%
	21-35 years old	142	42.8%
	35-50 years old	125	37.7%
	50 years old and above	46	13.8%
Education Level	Primary school	48	14.5%
	Junior high school	176	53.0%
	Technical secondary school	80	24.1%
	Post-secondary school	28	8.4%
Working Hours	Within 2 weeks	46	13.9%
	2 weeks to 1 month	83	25.0%
	1 month to 6 months	68	20.5%
	6 months to 1 year	112	33.7%
	More than 1 year	23	6.9%

3.2 Confidence and validity analysis

Confidence and validity analysis is a method of evaluating measurement instruments in psychological and social science research. The purpose of the reliability analysis was to test the reliability of the questionnaire data. Cronbach's alpha was used for the reliability analysis and values for each variable were greater than 0.8. This indicates good reliability. The purpose of validity analysis is to determine whether the research questions can effectively measure the variables that the researcher needs to measure. The KMO is 0.892, which is greater than 0.8, indicates that this questionnaire is highly suitable for factor analysis. The results of exploratory factor analysis showed a cumulative explained variance of 75.217%, indicating a high scale structure validity for the factors influencing the gig platforms.

3.3 Path analysis and hypothesis testing

The research hypotheses were tested by means of structural equation modeling. Structural equation modeling is a method for building, estimating, and testing causal models. We analyzed the data using AMOS 24.0. The path coefficients and regression variance results are shown in Figure 1. All hypotheses were supported with the exception of H2a and H4b.

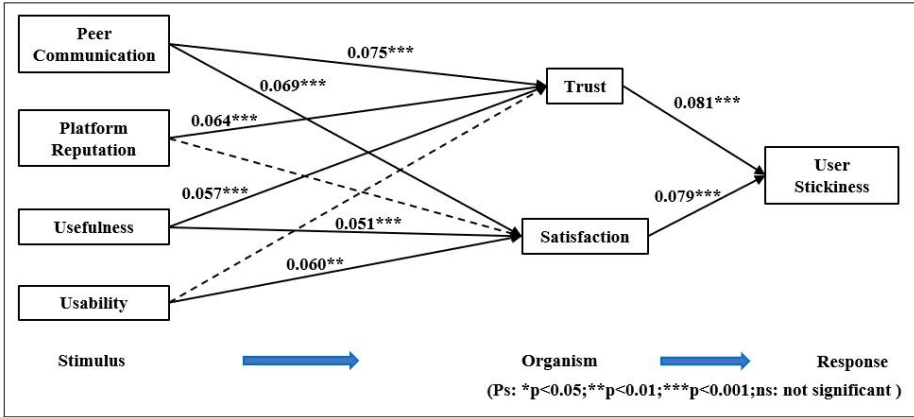


Fig. 1. Path coefficients

4 Conclusion and future research

4.1 Conclusion

Peer communication ($\beta=0.075, p<0.001$; $\beta=0.069, p<0.001$) had a significant positive effect on trust and user satisfaction. Platform reputation ($\beta=0.064, p<0.001$) had a significant positive effect on trust but could not influence user satisfaction. User satisfaction is reflected in the working environment and timely handling of problems. Usefulness ($\beta=0.057, p<0.001$; $\beta=0.051, p<0.001$) had a significant positive effect on both trust and user satisfaction. Usefulness is manifested in the improvement in the life that this job brings to the casual laborer. Usability ($\beta=0.060, p<0.01$) had a significant positive effect on user satisfaction but could not influence trust. Usability affects how the odd-job worker feels about using it in the work process and does not have any effect on trust. Trust and user satisfaction ($\beta=0.081, p<0.001$; $\beta=0.079, p<0.001$) had a significant positive effect on user stickiness. The vast majority of odd-job workers are involved in this work through friends' referrals. They are willing to trust the platform because they trust their friends. So compared to the user stickiness studies of other platforms, peer communication plays a very important role in the factors affecting the user stickiness of gig platforms.

4.2 Implication and Limitation

This study has certain theoretical significance. This study not only enriches the research on theories related to gig platforms also broadens the research perspective of user stickiness. This study provides a theoretical basis for gig platforms to improve user stickiness.

A comprehensive study of this paper brings some practical insights. Firstly, because most of the odd-job workers know about the gig platform is based on friends who have worked here before and introduced them. Therefore, the gig platform can

set a referral fee in order to encourage odd-job workers to introduce the platform to others around them. Secondly, the way to get the service fee on the next day is very attractive to the odd-job workers, and the gig platforms need to ensure the daily settlement, which is crucial to build up the odd-job workers' trust in the platform. Finally, labor agencies have longer experience and expertise in hiring labor, and they are more aware of market demand and labor skill matching. Therefore, gig platforms need to compete with labor agencies by innovating and improving their service quality. This must be done to ensure that the platform attracts and retains users.

This paper has some shortcomings in that the scope of the study is based on a small sample. It has not been tested on a large sample. So the sample size can be increased in subsequent studies.

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