The Impacts of Platform Quality on Gig Workers' Autonomy and Job Satisfaction

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Abstract

Gig economy jobs rely heavily on the use of platforms including mobile applications. Even though such platforms are necessary to participate in the gig economy, we know very little about how the quality of these platforms affects gig workers. Drawing from a survey of Uber drivers, in this paper we examine the impacts of platform quality on gig workers' job autonomy and job satisfaction. Preliminary results suggest that gig workers working in the high quality of platforms are more likely to have greater job autonomy and satisfaction. This study contributes to the literature by identifying platform quality as an important factor of gig workers' job autonomy and satisfaction and suggesting possible applications of the preliminary findings in future research.

Author Keywords

Gig economy; Platform quality; Worker outcomes; Job autonomy; Job satisfaction.

Introduction

For many individuals the gig economy has become a major source of their income [8] as well as a "side hustle" to make extra income [12]. Despite its popularity and potential to earn money, previous

research has found that gig workers have expressed a lack of satisfaction with their jobs in this new sector [11]. Satisfaction can be defined as the positive affect or valance associated with a particular activity [10]. Yet, we know relatively little about the factors which lead to gig workers' job satisfaction.

On one hand, many scholars have suggested that the "platformization" of work has contributed to the lack of job satisfaction in the gig economy [11]. Platformization is described as replacing traditional managerial roles with algorithm-based management through digital system, such as mobile applications [7]. Research has suggested that platforms driven by algorithms lead workers to perceive limited control over the platform and less work satisfaction [6].

On the other hand, prior literature on information systems in traditional organizations has suggested that information systems can empower workers and promote job autonomy and satisfaction [4]. In particular, systems that are high in platform quality have been linked to positive worker outcomes in many settings [5]. For gig workers, the platform is a vital information and communication technology which assigns and coordinates their work activities with their platform company and their customers. Thus, we argue that it is important to understand the quality of gig economy platforms and its impacts on job autonomy and satisfaction of gig workers.

To do so, we draw on the concept of system and information quality from prior research [3] and reconceptualize it as "platform quality". Platform quality is defined as the perceived quality of work platforms, comprised of system quality and information quality

(See Figure below). System quality indicates sophistication and flexibility of systems, to what degree systems well-integrated and short time-lagged, and easy to learn and make changes [3]. Information quality indicates the quality of information content and format, to what degree information delivered through information systems is accurate and useful in workers' jobs, and its format [3].
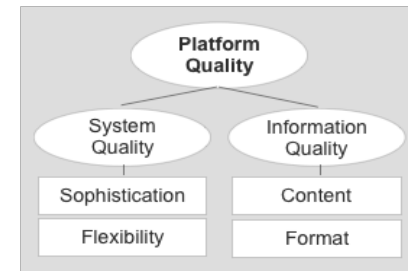

Figure. Construct of Platform Quality

To advance our understanding of the impact of platform quality on gig worker outcomes, this paper has three objectives. First, we introduce the concept of platform quality. Second, we examine its impacts on job autonomy and satisfaction of gig economy workers. Finally, we discuss the implications of platform quality and its possible applications in future research. In sum, we hope to contribute to the literature by proposing "platform quality" as a core construct to understand job autonomy and satisfaction of gig workers.

Method
We conducted a survey study, sampling Uber drivers through a Qualtrics panel. The survey included measurement items of perceived platform quality, job satisfaction, and job autonomy that are adopted from

prior studies. In addition, we asked background information, such as working hours per week and job dependency (See details in the side bar). Our data included a total of 112 responses after removing incomplete responses. The average age of respondents was 32.77 years old, ranging from 18 over 73 years, and 52.55% were female.

Results
First, before testing the relationship between platform quality and job autonomy and satisfaction of gig workers, we evaluated the reliability of measurement items of platform quality. All of the Cronbach's alpha values of the sub-components were above 0.8. In addition, in order to understand impacts of platform quality on worker outcomes, we analyzed the data by performing regression analysis. Dependency of household income and working hours per week were controlled in the analysis.

	Job Autonomy		Job Satisfaction	
	Controlled	Full	Controlled	Full
Constant	2.56***	1.16**	2.70***	1.09***
Control Variables				
Dependency	0.31**	0.14	0.34**	0.14
Working hours	0.01*	0.00	0.00	-0.00
Predictor				
Platform quality		0.52**		0.59**
R^2	0.12**	0.36***	0.08**	0.37***
R^2 Change		0.24***		0.29***
F	7.11**	20.52***	4.96**	21.10***

Table: Results of analysis. *Note*. *N* =112; Platform quality: *M*=4.07, *SD*=0.84, Autonomy: *M*=3.83, *SD*= 0.81, Satisfaction: *M*=3.96, *SD*=0.87, Dependency: *M*=3.83, *SD*=0.81, Working Hours: *M*= 26.37, *SD*=20.85; *p<.05, **p<.01, ***p<.001.

The results show that in the Uber driving context, platform quality has a significantly positive impact on job satisfaction and job autonomy respectively (See details in Table). In other words, platforms with flexible and sophisticated quality of systems and accurate and consistent information are likely to improve workers' autonomy and satisfaction.

Discussion
Contributions
This study offers several contributions to both research and design concerning the potential importance of platform quality. First, this study contributes to the literature on gig economy by identifying an important predictor of gig economy worker's job autonomy and satisfaction, which is platform quality. These results although preliminary offer insights into how to address the problems of unhappy gig economy workers. Second, these findings also contribute to design by highlighting the need to ensure that gig economy platforms are designed to sufficiently address platform quality. For example, gig platforms are required to offer systems high in flexibility and sophistication and information with relevant and useful contents and formats so that workers in the platforms have greater autonomy and satisfaction.

Future Research
Future research should examine the potential mediators between platform quality and job autonomy and satisfaction. For example, the impacts of platform quality might flow through decreases in cognitive load or increases in perceived organizational support. Either could be important mediators but their implications for research and design would vary greatly. Future research might also examine how the needs of platform

quality might vary across gig economy platforms. While the gig economy mostly operates on platforms to manage tasks and workers, each platform is designed based on its own algorithm developed to do the job in the particular context. For example, in this study we examine Uber drivers but the system and information needs of Airbnb hosts may be significantly different.

Conclusion

The gig economy is becoming increasingly important but little is known about how to promote feelings of job autonomy and satisfaction among gig economy workers. This study is an important starting point in our understanding of how to promote positive workers' outcomes in the gig economy. Nonetheless, future research is needed to build on these ideas and expand our understanding.

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