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

**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 (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.

<table>
<thead>
<tr>
<th>Job Autonomy</th>
<th>Job Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controlled</td>
<td>Full</td>
</tr>
<tr>
<td>Constant</td>
<td>2.56***</td>
</tr>
<tr>
<td>Predictor</td>
<td></td>
</tr>
<tr>
<td>Dependency</td>
<td>0.31**</td>
</tr>
<tr>
<td>Working hours</td>
<td>0.01*</td>
</tr>
<tr>
<td>Platform quality</td>
<td>0.52**</td>
</tr>
<tr>
<td>$R^2$ Change</td>
<td>0.36***</td>
</tr>
<tr>
<td>$F$</td>
<td>7.11***</td>
</tr>
</tbody>
</table>

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.

References
satisfaction, positive affectivity and negative
affectivity. Journal of Occupational and Organizational
organizational support, discretionary treatment, and job
[3] Narasimhaiah Gorla, Toni M. Somers, and Betty
Wong. 2010. Organizational impact of system quality,
information quality, and service quality. The Journal of
Strategic Information Systems 19, 3: 207-228.
quality of information products on information system
users’ job satisfaction: an empirical
investigation. Information Systems Journal 10, 4: 323-
345.
perceptions of service quality and satisfaction with e-
business. International Journal of Human-Computer
Studies 64, 9: 926-938.
Hands on the wheel: Navigating algorithmic
management and Uber drivers’ autonomy. In
Proceedings of the International Conference on
Information Systems (ICIS ’17), 1-17.
Sangeet Paul Choudary. 2016. Platform Revolution:
How Networked Markets Are Transforming the
Economy and How to Make Them Work for You. W.W.
Norton & Company, New York, NY.
Selling and Home Sharing.
[9] Anne Richter, Katharina Näswall, Claudia Bernhard-
Oettel, and Magnus Sverke. 2014. Job insecurity and
well-being: The moderating role of job dependence.
European Journal of Work and Organizational
Psychology 23, 6: 816-829.
satisfied yet? Shared leadership, individual trust,
autonomy and satisfaction in virtual teams. Journal of
the Association for Information Science and Technology
69, 4: 503-513.
labour and information asymmetries: A case study of
Uber’s drivers. International Journal of Communication
10: 3758-3784.
saved by a side hustle. Retrieved June 30, 2018 from
https://www.washingtonpost.com/news/get-
there/wp/2018/06/04/your-retirement-may-be-saved-
by-a-side-hustle/?utm_term=.8a28e10c42fc