Support Structures and Their Impacts on Work Outcomes of Online Workers in Developing Countries

Yaping Zhu
University of Arkansas, yzhu@walton.uark.edu

Amber Grace Young
University of Arkansas, ayoung@walton.uark.edu

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Emergent Research Forum (ERF) Papers

Yaping Zhu
University of Arkansas
yzhu@watlon.uark.edu

Amber Grace Young
University of Arkansas
ayoung@walton.uark.edu

Abstract

Online labor platforms (OLPs) are transforming how firms operate and how people work. While much attention has been paid to understand how OLPs use algorithms to match workers with consumers and how OLPs are different from traditional firms, little is known about how this new form of firm impacts marginalized populations. Likewise, little is known about what factors lead to online workers' work success. This short paper aims to explore the support structures for online laborers in developing countries. Drawing on the literature, we distill two types of support structure, namely, formal support from the platform firm, and informal support from peers. The current study seeks to develop in-depth understanding of support structures for online workers in developing countries and how support structures impact their work outcomes.

Keywords

Online labor platforms, support structure, digital platforms, marginalized digital workers, work outcomes

Introduction

The emergence of online labor platforms (OLPs) has transformed how firms operate and how people work (Kreis, 2019). Online workers, referred to "individuals who have registered with an OLP to undertake work assignments within a given area of expertise" (Mohlmann, Zalmanson, Henfridsson, & Gregory, 2021), account for one third of the working age population (Mohlmann et al., 2021). Uber alone has around 3.9 million drivers around the world (Ridester, 2021). Existing OLP studies assume that online workers in developing countries "imitate their Western counterparts" (Elbanna & Idowu, 2021: 1). This assumption may keep researchers from paying close attention to the unique issues online laborers face in developing countries.

Research suggests that support structures are an important antecedent to the continued use of an information system (Furneaux & Wade, 2011) and a key factor for worker success (Sykes, 2015). The support structure for online workers is significantly different between developed countries and developing countries. Therefore, in-depth understanding of support structures for online workers in developing countries is needed. This study aims to answer the following two research questions:

1) What support structures exist for online workers in developing countries?

2) How does the support structure impact online workers' work success in developing countries?

It is important to highlight that OLP firms differ significantly from traditional firms (Randhawa, Ahmad, Chen, & Raza, 2021). First, the workers are hired to complete "on-demand" short period tasks (e.g., ride-hailing, food delivery). They are paid based on the quantity of task completion. The employment relationship is remote and informal. With the help of advanced technology and algorithms, firms do not need to provide any physical instrument to fulfill the task and the HR function (e.g., recruitment) is realized online (i.e., remotely) (Kreis, 2019). Recruitment is informal because workers can onboard/offboard quicky and there is little long-term relationship unless desired (Kuhn & Maleki, 2017).

Therefore, the workers have the autonomy to choose what to work and when to work. Second, public forums become an important place for workers to communicate and seek help (Rosenblat & Stark, 2016). Since OLP firms manage workers and assign tasks through algorithms, the "remote" management triggers workers creating their own communities to support themselves (e.g., UberPeople.net). Therefore, contrary to the traditional firms, the peer-support in OLPs is informal and worker-driven.

Prior IS research (e.g., Sykes, 2015) suggests that support structures play a significantly positive role in work outcomes, such as job satisfaction and job performance. Various support structures have been examined including training (e.g., Devaraj, Easley, & Crant, 2008), peer-support (e.g., Sykes, 2015), management support (e.g., Liang, Saraf, Hu, & Xue, 2007), and online support (e.g., Ravishankar, Pan, & Leidner, 2011). Existing studies on support structures are conducted in traditional firms such as hospitals and telecommunications companies (e.g., Liang et al., 2007). However, little is known about the support structures in OLP firms, especially in the context of online workers in the developing countries.

This current study is expected to contribute to the literature in three important ways. First, this research contributes to the support structure literature. Prior research on support structures mainly focuses on traditional firms. OLPs have significantly different ways in organizing workers and managing workers. We add to the literature that seeks a deeper and integrative understanding of the support structures in new forms of firms. Second, this work is expected to contribute to societal impact of digital platforms literature (e.g., Dillahunt & Malone, 2015). Existing OLPs literature assumes that the online workers in developing countries imitate online workers in developed countries, overlooking the differences in working conditions. Growing evidence suggests that the same platform can have different effects on workers depending on the workers' local economic conditions (García et al., 2021). Drawing on support structure framework, we examine the support structure for online laborers in developing countries and investigate how the support structure impacts their work success. Third, this research is expected to broaden IT design research (e.g., design for social good) (e.g., Young & Zhu, 2021). With the prevalence of OLPs and the growth of online worker, this exploration can provide implications for how OLPs can improve design to support and emancipate marginalized groups (Kane, Young, Majchrzak, & Ransbotham, 2021; Young, Zhu, & Venkatesh, 2021).

Literature Review

The current study is informed by four streams of literature, namely, support structures, online labor platforms, online labor platforms in developing countries, and worker outcomes.

Support Structures

Firms typically provide a portfolio of support structures to help workers in coping with different types of technology use (Beaudry & Pinsonneault, 2010). Our literature review suggests that eight possible support structures have been adopted in firms. We represent the literature review in Table 1. It shows that most studies have been limited to a traditional firm context. Though support structures have implications for workers and firms, limited attention has been paid to the support structures in OLPs.

Reference	Technology	Type of support	Context
Beaudry & Pinsonneault (2010)	Applications for a bank	Social support	support structures and worker's IT use
		Instrumental support	
Puhakainen & Siponen (2010)	E-mail	Training	support structure and IS security policy compliance
Sykes (2015)	ERP	Training	ERP implementation in a multinational telecommunications company
		Online support	
		Help desk support	
		Change management support	

		Peer advice ties	
Venkatesh et al. (2011)	E-healthcare	Training	The impact of an E-healthcare system on quality of care and patient satisfaction
		Process change support	
		Online support	

Table 1. Exemplars of Support Structure Research

Online Labor Platforms

OLPs design, maintain and develop digital platforms (or apps) to match supply-and-demand in the market (Kuhn & Maleki, 2017). The literature review indicates that algorithms are used to replace typical human resource (HR) processes such as recruitment, work assignment, and performance evaluation (Mohlmann et al., 2021). Algorithmic control and management keep marginal and labor costs extremely low (Kreis, 2019).

The app or platform digitally connects workers and consumers and monitors and manages workers. Thus, the role of HR professionals in coordinating online workers is supplanted by algorithms. The structure of OLP firms is that they typically have a small core and a much larger periphery (Mohlmann et al., 2021). The algorithms provide instructions for work processes. At the same time, workers can submit their needs via the platform or app without interacting with a human. OLP support structures come in two forms, i.e., formal support from the OLP firms (i.e., training and online support), and informal support from online forums (i.e., peer advice).

Online Labor Platforms in Developing Countries

OLPs digitally connect workers globally (Kreis, 2019). The business model of OLP firms bypasses many geographic challenges, providing job opportunities to workers from developed and developing countries (Elbanna & Idowu, 2021). Relatively few OLPs studies are conducted in the context of developing countries (Khethisa, Tsibolane, & Belle, 2020). A notable exception is the work of García and colleagues (2021) that explains how OLPs can have positive effects in developing countries such as reduced income inequality and lower unemployment but also negative effects such as unfair working conditions and a lack of worker protections and benefits. Challenges such as precarious working arrangements, occupational hazards, and employment uncertainty send some OLP workers into survival mode as they seek to cope with the oppressive nature of their work and struggle to leverage the technology features available to them (Khethisa et al., 2020). OLP workers in developing countries take on many risks such as dangerous customers (Mpofu, Tsibolane, Heeks, & Belle, 2020) and COVID-19 exposure (Masiero, 2021). While some existing OLP studies assume that online workers in developing countries "imitate their Western counterparts, without close examination of their experiences and responses to work conditions" (Elbanna & Idowu, 2021), a subaltern lens reveals that online laborers in developing countries may experience different or additional challenges than online workers in Western countries (Masiero, 2021).

Worker Outcomes

IS research has examined a wide range of worker outcomes including job stress, job satisfaction, system satisfaction, work-life-balance, and job performance. In this study, we focus on the worker's subjective outcomes (Parker & DeCotiis, 1983). Specifically, the current study aims to examine three commonly studied worker outcomes in the context of support structure (Sykes, 2015), namely, job satisfaction, job performance, and job stress. In the following section, we propose the conceptual model and provide construct definitions.

Preliminary Conceptual Model

Figure 1 presents the conceptual model for this study. The model and justification are based on theories of support structures, OLPs, and worker outcomes. Training refers to the effort to prepare the employees for

use of the app (or platform) to fulfill work tasks (Sharma & Yetton, 2007). Online support refers to the real-time online chat provided by the OLP to help the workers (Venkatesh et al., 2011). Peer advice acts as sources of information available to online workers (Sykes, 2015). Job satisfaction refers to the degree to which a worker is happy with the work (Li, Liang, & Crant, 2010). Job performance refers to the degree to which a worker performs his or her job well (Beal, Cohen, Burke, & McLendon, 2003). Job stress refers to the degree to which a worker feels that he or she is constrained in the workplace or deviates from self-desired functioning (Parker & DeCotiis, 1983).
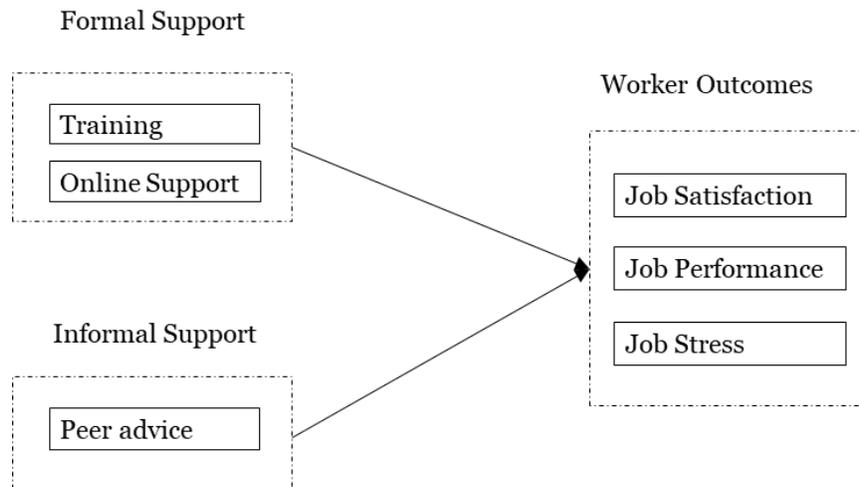
Figure 1 Conceptual Model

Future Steps and Expected Contributions

We are going to conduct this research using a mixed-method design where the qualitative study will help us generate insights about the support structures and subjective outcomes, and the quantitative study will be used to test proposed hypotheses. We will conduct text analysis of data from online forums with the purpose of summarizing key themes around support from OLP organizations and support from peers. Based on the themes, we will create open-ended questions for interviews. The interviews will contribute to understanding of how support structures impact online worker work success toward the goal of developing survey items for a quantitative study. We aim to provide an in-depth understanding of the support structures of online workers in developing countries and explain how the support structure impact their work success.

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