Chapter 7
Digital Innovation and Ridesharing in a Developing Country: The Case of Uru

Robert Ohene-Bonsu Simmons
University of Ghana, Ghana

ABSTRACT
The purpose of this chapter is to understand digital innovation in the taxi industrial structure for ride-sharing in a developing country. Digital innovations are required in all aspects of an economy including the transportation industry. Drawing on a qualitative interpretive case study methodology, this chapter offers an overview of Uru’s digital innovation for ridesharing in the physical taxi industrial structure in a developing country context of Ghana. The findings show that ridesharing provides riders-drivers with better journey activities, which supersedes taxi services in competition. These are electronic booking, riders’ and drivers’ profiles for security, transparent automatic billing for affordable transportation, and opportunities for drivers to accept a series of riders’ requests at proximity. The chapter provides the implications for these findings for research and practice.

INTRODUCTION
Understanding of how emerging information systems (IS) in the transportation industry can create service change is crucial. In recent years, IS has become more advanced and diversified and the transportation industry is not exempted (García-murillo, Macinnes, & Bauer, 2018). The strategy which underpins this process is referred to as digital innovation. Digital innovation is prevalent in both developed and developing economies and it is cost-effectively transforming every aspect of life (Greenwood & Wattal, 2017). Digital innovation is defined as an opportunity to combine existing physical industrial structure and digital technology to create new products, markets, and services. It enables innovators to combine
existing mainstream products, markets, and services with digital technology to develop new forms of products, services, and markets.

Car ridesharing (ridesharing) is an example of digital innovation in the transportation industry, which involves digital arrangement that enables a rider (traveller or commuter) to travel in a physical private car (ride) driven by a potential driver from a ridesharing company for a fee. Such IS or transportation information system has partially helped to minimize both riders-drivers’ challenges. As digital platforms for ridesharing continue to advance, ridesharing, however, is all about arrangement via mobile application (app) that provides on-demand ride service for riders in the taxi industry. For example, Uru ridesharing uses digital technologies to connect remote riders-drivers with an efficient matching between them for journey activities (e.g., Simmons, Effah, & Boateng, 2019). Essentially ridesharing is a digital and a physical (digital-physical). Digital-physical is a digital innovation in the physical taxi industrial structure paradigm, which has emerged to address the challenges of riders-drivers in taxi services.

Ridesharing creates competition and opposition in the transportation industry, especially among the taxi operators (Simmons, 2018). Among the challenges that riders face are shortage of services available during the raining season and peak hours in the morning and evening, and relatively high charges compared those of taxi operators (e.g., Zhou, Dou, Jia, Hu, & Xu, 2016). Ridesharing provides relief to riders who might have faced the challenges using taxi services. Nevertheless, some studies have found that ridesharing has also its challenges (e.g., Billhardt, Fernández, Ossowski, Palanca, & Bajo, 2019; Greenwood & Wattal, 2017). Thus, there is little emphasise on ridesharing in a developing country. It is, therefore, necessary to do further study to better understand the true nature and scope of the relief and challenges of ridesharing in a case study, focusing on Uru Company in Ghana. The objective of this chapter is to understand how digital innovation for ridesharing in taxi industry provides riders-drivers with better journey activities in a developing country context of Ghana. The chapter provides a conceptual framework of digital platform to explain the workflow of Uru ridesharing.

BACKGROUND

Digital Innovation

Digital innovation is pervasive, core to digital economy, and not limited to any specific industry. Digital innovation is an ideal for creating a new or renewing product, service, or market via the synergy of information and communication technology (ICT) and existing business model, social, and organisational (Lokuge, Sedera, Grover, & Xu, 2019). Innovation, however, as an idea, practice, behavior, is primarily market driven, or an artifact that is perceived as being new to create new products, administrations, and services by people with interest and knowledge (Alter, 2006). Therefore, innovation is required in every aspect of service to meet the users’ needs such as riders-drivers based on the rapid emerging digital technology changes. Digital innovation refers to a new digital technology that has lower cost and advanced performance measured by traditional criteria, and higher ancillary performance (Christensen, 1997; 2006) for companies to effectively and rapidly deliver new services. Digital technologies, however, are collective terms of ICT such as mobile works (Chatterjee, Sarker, & Siponen, 2017); Internet of things, mobile devices, and social media (Lokuge et al., 2019); mobile apps (Mounce & Nelson, 2019); digital platforms (Tan et al., 2017); and digital stores and mobile networks (Junglas & Watson, 2006). The outcome, however, provides the innovative company to effectively and rapidly deliver new service.