

# **Ridesharing in Developing Countries: Perspectives from India and Thailand**

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# Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Simmavanh Vayouphack

31 January 2020

A handwritten signature in black ink, appearing to read "Simmavanh", written in a cursive style.

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# Abstract

The increasing number of internet users and the adoption of cloud-based technology have significantly contributed to the growth of ridesharing across the world. Previous research in developed countries reveals that, despite many criticisms, the rise of ridesharing offers extra income to drivers, and provides an environmentally-friendly solution to society. However, there is less research on ridesharing in developing countries. Therefore, this research will study adaptation to ridesharing in developing countries, particularly in India and Thailand, by exploring it from the perspectives of four main interest group – passengers, local businesses, ridesharing drivers and government – as well as ridesharing platform operators. With the research purpose above, the research question is: 'How are India and Thailand adapting to the rise of ridesharing?'. The topic is examined through thematic analysis of empirical data sourced primarily from news articles. A comparative case study is applied as the main research methodology to compare how the two countries are adapting to the rise of ridesharing.

The key findings of this research are as follows. From the point of view of passengers, passengers in India are more sceptical of ridesharing services than those in Thailand. Safety concerns are more prominent in India, whereas in Thailand ridesharing services are more highly appreciated due to dissatisfaction with the local taxi services. From the point of view of local businesses, in India some taxi companies have adapted their business strategies to gain market share, whereas in Thailand local taxis in particular have not adapted and protest against the ridesharing services because they consider their income to be stolen in unfair competition and the sector not adequately regulated by the government.

Ridesharing drivers in both countries are concerned about the deteriorating benefits and income. In India, the ridesharing drivers have responded by protesting against the ridesharing operators since 2017. In contrast, the drivers in Thailand do not seem to be as concerned with this issue and are viewed by other interest groups as those who benefit the most. While ridesharing is regulated in some parts of India, it is still completely unregulated in Thailand. Both national and local governments in both countries are working on reviewing laws and regulations for the benefit of all interest groups. However, the local taxi operators in Thailand are protesting against the ridesharing legalisation plan. In response to the protests of ridesharing drivers in India and the local taxi operators in Thailand, ridesharing platform operators have apologised to their passengers for the inconvenience caused and have in Thailand

advised their drivers on how to avoid conflict with the local taxi operators. However, they have refused any long-term solutions to address the underlying causes of the strikes.

In summary, the interest groups have responded differently to the challenges in the two countries. The findings contribute to the ridesharing literature and reveal in particular the efforts of governments to regulate ridesharing. However, there seems to be no single model on how developing countries can best adapt to the rise of ridesharing.

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# Chapter 1: Introduction

The sharing economy has recently become popular with the rapid growth of companies using platform technology as the primary tool to connect service providers and consumers (Henten & Windekilde, 2016). Uber is one outstanding example of a company that uses the sharing economy concept and operates successfully in many countries across the world. The sharing economy builds on the concept of collaborative consumption which was originally based on sharing ownership, forming a community and realising the value and benefits of sharing products and services (Belk, 2007; Botsman & Rogers, 2010; Hamari, Sjöklint & Ukkonen 2013). However, when money is involved in the process, sharing becomes renting or selling (Belk, 2007; Arcidiacono, Gandini & Pais, 2018). The word “sharing” may still be maintained because the companies, for example Uber, do not own the properties used themselves. The assets are deployed or rented out by the owners who are willing to earn extra income from them (Sundararajan, 2014; Henten & Windekilde, 2016).

The sharing economy emerged after the financial crisis in 2008 when assets were lost and temporary jobs were in high demand (Schwartz & Einarson, 2018). Platform technology made consumers easier to access and enabled products and services to be shared without the requirement for each person to own a specific item (Botsman & Rogers, 2010; Moist, 2018; Schwartz & Einarson, 2018; Arcidiacono et al., 2018; Apte & Davis, 2019). Ridesharing emerges with this technology, relying on internet connection and GPS to connect drivers with passengers and to navigate directions (Sundararajan, 2014).

Ridesharing services are one form of the sharing economy that allows the car owners to offer short-distance ride services as an alternative for urban commuters (Sundararajan, 2014). Ridesharing is a part of the sharing economy because the ridesharing platform operators do not own the vehicles. They only provide the websites and applications based on algorithms and data to enable ridesharing drivers to connect with their passengers, and in doing so earning income on each transaction (Schwartz & Einarson, 2018). The platforms include feedback systems for both passengers and ridesharing drivers, which are monitored by the ridesharing platform operators in order to guarantee the trustworthiness of the service (Sundararajan, 2014; Moist, 2018; Schwartz & Einarson, 2018).

The sharing economy and ridesharing share elements with the circular economy, in which use is optimised (Esposito; Tse & Soufani, 2017). Here seats are shared between passengers and drivers who wish to commute on the same route (Makovský,

2017). It is also closely related to the gig economy where workers do not permanently work for one organisation (Makovský, 2017; Anner, Pons-Vignon & Rani, 2019). In addition, ridesharing has been seen to contribute to the promotion of environmental preservation through the effective and efficient use of vehicles, which has become the main focus of sharing economy implementation in developed countries (Esposito, Tse & Soufani, 2017; Schwartz & Einarson, 2018).

Even if the sharing economy and ridesharing have been studied extensively in the developed country context, there is still limited research of it in developing countries (Yuana, Sengers, Boon & Raven, 2019; Kaushal, 2018; Arcidiacono, Gandini & Pais, 2018). Ridesharing is booming globally, including in Asia. Since 2000, the number of internet users in Asia has increased significantly from 114 million people to more than 2 billion people today, making up more than 50 per cent of the population in Asia (Internet World Stats, 2019). This trend drives business models in developing countries that adopt the internet and technological platforms, aligning with the sharing economy.

The most rapidly growing business model in developing countries is transportation services due to the high demand of commuters in big cities and the lack of other alternative solutions to the often unsatisfactory public transportation situation (Yuana, Sengers, Boon & Raven, 2019). For example, Uber and Grab Bike provide ridesharing services as an alternative solution (Yuana et al., 2019; Kaushal, 2018; Schechtner & Hanson, 2017). This is a different focus compared to ridesharing operations in developed countries where ridesharing services are primarily used for convenience and environmental friendliness (Esposito et al., 2017; Schwartz & Einarson, 2018; Schechtner & Hanson, 2017). Moreover, these new business models provide job opportunities as well as more income by using existing resources on more flexible schedules (Yuana et al., 2019; Valente, Patrus & Guimarães, 2019).

However, ridesharing has also been heavily criticised. Many questions have been raised by researchers concerning legal protections of passengers, local businesses and ridesharing drivers. Passengers feel unsafe getting a ride with strangers, local businesses feel unsafe because of reduced income, and the ridesharing drivers are often unhappy because of insufficient income from the ridesharing platforms.

This research aims to study the implementation of the sharing economy in India and Thailand with a focus on ridesharing. I adopt the theoretical framework of Bergh, Funcke & Wernberg (2018), but amend it slightly in light of Schwartz & Einarson (2018) and the different aspects of ridesharing discussed in the research of Yuana et al. (2019) on ridesharing in developing countries. This previous research covers the perspectives of passengers, local businesses, ridesharing drivers and governments. In

addition, I will also consider the responses to changing conditions by the ridesharing platform operators. This will be explained in further detail in chapter 2.

In this research, the term 'passengers' will be used to refer to the ridesharing customers or co-passengers who use a ridesharing service in terms of individual rides or shared seats in vehicles used to commute along shared routes. The category 'local businesses' refers here primarily to other transportations providers, including local taxi drivers, taxi medallions, and public transportation, such as buses. 'Ridesharing drivers' refers to those who use the ridesharing platforms to offer rides or shared seats in their vehicles. The category 'government' refers to local, regional and national governments, whose roles and responsibilities include the setting of laws and regulations to govern ridesharing activities, such as the legalisation of ridesharing. The 'ridesharing platform operators' refers to the companies that own the platforms which are used to match drivers and passengers.

Thailand and India are chosen as the sample countries for the research because they are located in the same region but are very different in terms of internet accessibility, which is the backbone of the sharing economy. While 82 percent of the Thai population are internet users, only 40 percent of the Indian population has access to the internet (Internet World Stats, 2019). This may impact how quickly the ridesharing technology is taken up by people in their daily lives (Bergh, Funcke & Wernberg, 2018).

Research into the perspectives of passengers, local businesses and ridesharing drivers on the challenges of ridesharing and into how the Indian and Thai governments are responding with laws and regulations can lead to a better understanding of how these countries are adapting to the rise in ridesharing services. Previous literature has already demonstrated some of the differences in the implementation of ridesharing between developed and developing countries, drawing in particular on data from Indonesia and the Philippines, which are neighbouring countries and have similar macro-environmental conditions (Yuana et al., 2019).

This research project will seek to contribute to the research in this field by analysing and comparing differences within the developing country context, and specifically the experience of ridesharing in two countries that are located geographically close to each other but that are different in many important ways: India and Thailand. The geographic, cultural and macro-environmental differences, and the different stages at which these countries are in terms of implementation of ridesharing services, could lead to new insights into how other developing countries might better adapt to the operation of these technologies. Therefore, the research question for this project is: "How are India and Thailand adapting to the rise of ridesharing?". This research looks

at changes in the ridesharing environment, how different interest groups are impacted by and respond to these changes, and how these ridesharing issues are addressed overall.

This dissertation is organised as follows: Chapter one, Introduction, is where the background of why this research has been conducted is presented. Chapter two, Literature Review, presents the relevant existing published research on ridesharing. Chapter three, Research Methodology, explains how this research was conducted. Chapter four, Findings, presents the result of the research. Chapter five, Discussion, compares the findings on ridesharing in India and Thailand, discusses the research results in light of existing literature, and seeks to provide insights into differences in adaptation to ridesharing between developed and developing countries. Chapter six, Conclusion, summarises this research, discusses the limitations of this research and makes suggestions for future research.

# Chapter 2: Literature Review

Ridesharing developed as part of the sharing economy. One of its key underlying motivations is maximising the use of assets. In its initial form, ridesharing referred to sharing empty seats in a car with passengers travelling along the same routes or to the same destination (Amirkiaee & Evangelopoulos, 2018; Yuana, Sengers, Boon & Raven, 2019). Recent technological developments have made it easier for drivers and passengers to match with each other through ridesharing platforms; a service for which the platform operators charge a commission of some percentage of the driver's earnings. To learn more about how ridesharing works and its impacts, it is useful to consider how it developed. Moreover, by analysing the differences in how ridesharing developed in both developing and developed country contexts, a greater understanding can be gained of how these countries adapt to ridesharing, and how the ridesharing platform operators adapt to these different environments.

In Section 2.1, the sharing economy will be introduced and defined, and the benefits and drawbacks of the sharing economy will be outlined. Next, Sections 2.2 and 2.3 will focus on the issues identified in the literature regarding ridesharing, starting by defining ridesharing (in Section 2.2) and then looking at ridesharing operations in developed and developing countries (in Section 2.3). As the current literature on ridesharing mostly considers the perspectives of four interest groups—passengers, local businesses, ridesharing drivers and government—Section 2.4 presents the perspectives of these groups as the framework through which to address the research question: 'How are India and Thailand adapting to the rise of ridesharing?' Section 2.5 concludes the chapter.

## 2.1 The sharing economy

Ridesharing developed in the context of the sharing economy. In this section, the growth of the sharing economy is discussed first, to show its basis in collaborative consumption, mediated by the market. Then, the definition of the sharing economy is discussed together with what it encompasses. Next, the different motivations of the passengers and ridesharing drivers who participate in the sharing economy will be outlined, followed by a discussion of the role of technology in the sharing economy.

The sharing economy developed out of collaborative consumption, in which the ownership of assets is shared with the community. Collaborative consumption gained increasing research attention when it started to involve activities in which money was exchanged (Botsman & Rogers, 2010; Arcidiacono, Gandini & Pais, 2018). The original

aim of collaborative consumption was to expand the community by facilitating greater access to the benefits of products and services (Belk, 2007; Sundararajan, 2016).

More recently, these sharing practices have become more market mediated, such that users must pay to access others' products and services. This represents a shift from social value to economic activity, and a reduction in the collaborative nature of these practices, causing some researchers to wonder whether they can still be called 'sharing' (Arcidiacono et al., 2018; Belk, 2001; Hamari et al., 2013; Valente, Patrus & Guimarães, 2019). As one example, Uber drivers are not already travelling along the same route as their passenger: They arrive at a location specifically to pick up their passenger, who has requested the ride-hailing service (Bergh, Funcke & Wernberg, 2018; Frenken & Schor, 2017). The term 'sharing' remains in use largely because the platform operators (e.g., Uber) do not own the assets or provide the services themselves; the asset owners and service providers (e.g., ridesharing drivers) register with the platforms, with which they are willing to share their fee in return (Henten & Windekilde, 2016; Sundararajan, 2014). This situation has led some authors researching the sharing economy to refer to it as the 'mash economy' (Gansky, 2010), the 'platform economy' (Slee, 2011), 'crowd-based capitalism' (Sundararajan, 2016), 'platform capitalism' (Srnicek, 2017) and the 'peer-to-peer economy' (Arcidiacono, Gandini & Pais, 2018). Nevertheless, the term 'sharing economy' is more familiar and thus generally used (Arcidiacono et al., 2018; Gansky, 2010; Srnicek, 2017; Sundararajan, 2016).

With the development of the sharing economy as outlined above, its definition has been evolving. In recent literature, the 'sharing economy' refers to a new wave of businesses that use cloud-based technology to match customers with providers of services, such as short-term apartment rentals, car rides and household tasks (Apte & Davis, 2019, p. 104). The sharing economy also covers ownership roles (Choe, Garza, Ural & Woolfalk, 2016; Lee, Chan, Balaji & Chong, 2018), the earning of extra income from under-utilised physical assets (Frenken & Schor, 2017) and the emergence of digital infrastructure as the intermediary (Bergh, Funcke & Wernberg, 2018; Henten & Windekilde, 2016; Srnicek, 2017).

The motivations of passengers and ridesharing drivers operating within the sharing economy include deriving economic benefits from earning extra income, emotional benefits through the enjoyment of getting involved in new activities and ecological benefits in terms of reduced waste, as well as having on-demand access to assets or services and tightening their social connection (Mayasari & Chrisharyanto, 2018; Schor & Fitzmaurice, 2015). Passengers in particular desire the ability to access products and

services without having to pay to own them, including for maintenance and space (Frenken, 2017; Hamari et al., 2016; Henten & Windekilde, 2016; Mayasari & Chrisharyanto, 2018). Therefore, the development of technologies of collaborative consumption, which underpin the new business models of the sharing economy, is expected to be the mass phenomenon enabling the economy to shift from the 'hyper-consumption' of the 20th century to the sharing of assets and services in the 21st century (Arcidiacono, Gandini & Pais, 2018; Botsman & Rogers, 2010; Frenken, 2017; Hamari et al., 2016; Sundararajan, 2016).

The development of technology and its application to the sharing economy has boosted the growth and competitiveness of various technology companies. Mobile applications, wireless broadband, open data and global positioning systems (GPS) now enable the tracking of goods and services and the use and implementation of payment systems through data-driven systems (Ganapati & Reddick, 2018; Henten & Windekilde, 2016; Majumder, 2019; Schwartz & Einarson, 2018; Sundararajan, 2016). Additionally, to ensure users' satisfaction with their experience, platform technologies have been designed to be capable of complex tasks while also being simple and attractive in appearance (Moist, 2018; Schwartz & Einarson, 2018; Meyer & Shaheen, 2017; Sundararajan, 2014, 2016). Unsurprisingly then, the literature regarding the sharing economy argues that it is growing so significantly that it will become the next chapter of economic evolution. (Bergh, Funcke & Wernberg, 2018; Henten & Windekilde, 2016; Taeihagh, 2017).

There are two key benefits of the sharing economy: the maximised use of assets through sharing with communities and the emergence of technology to facilitate the sharing system. Regarding the first, the sharing economy is a circular economy in which assets are brought to maximised utilisation, reducing the expense of consumers, who can now profit from access on-demand products without having to buy the asset (Makovský, 2017). For example, a consumer can rent some equipment for temporary use, which is cheaper than buying new equipment, which may then be rarely used. The circular economy also promotes environmental preservation through the efficient and effective use of resources and assets, and by reducing the need for manufacturing and its associated waste (Esposito, Tse & Soufani, 2017; Ganapati & Reddick, 2018; Schwartz & Einarson, 2018).

The second advantage of the sharing economy is provided by the technological platforms that digitally mediate the communication between passengers and the ridesharing drivers who are sharing their assets and services (Apte & Davis, 2019; Arcidiacono et al., 2018; Gansky, 2010; Makovský, 2017; Slee, 2011). For the

ridesharing services, the ridesharing drivers are considered as one of many participant groups in the sharing economy. The digital infrastructure of the sharing economy not only connects passengers and ridesharing drivers, but also facilitates the transactions and collects and analyses data (Apte & Davis, 2019; Arcidiacono et al., 2018; Schwartz & Einarson, 2018; Slee, 2011; Srnicek, 2017; Sundararajan, 2016). The sharing economy became more popular in response to the increasing price of products and demand for jobs, especially after the financial crisis in 2008, when the value of assets increased (Makovský, 2017; Schwartz & Einarson, 2018). Since then, many have come to rely on the technological platforms of the sharing economy, including ridesharing drivers who want to connect with passengers, jobs seekers looking for micro-tasks for extra income, and even multinational firms who need on-demand access to products and services (Apte & Davis, 2019; Arcidiacono et al., 2018; Botsman & Rogers, 2010; Moist, 2018; Schwartz & Einarson, 2018). The platforms are the technological infrastructure facilitating this matching process between demand and supply, through mobile applications and the internet, anywhere, at any time (Ganapati & Reddick, 2018; Srnicek, 2017).

However, a common criticism raised regarding the sharing economy is that it accelerates industry disruption. That is, it decreases the sales of businesses offering similar products and services. For example, the sale of hotel rooms decreased after Airbnb launched its sharing platforms (Henten & Windekilde, 2016; Makovský, 2017). Moreover, the sharing economy's technological platforms promote outsourcing; owning the means of manufacturing becomes less important and, by focusing on delegating the production process to other suppliers, or even offshoring to other countries, production costs are likely lowered (Srnicek, 2017; Sundararajan, 2016).

To summarise, the sharing economy is mainly about the concept of collaborative consumption. However, since money is involved in this economy, the concept's value shifts from social interaction to earning extra income. The benefits of the sharing economy are the maximised use of assets, support for the circular economy, environmental friendliness and more job opportunities for those with skills to provide a service on demand. However, it also decreases sales of competing products and promotes outsourcing, allowing the gig economy to exploit labour. The emergence of new technologies has facilitated the development of the sharing economy. The next section discusses ridesharing and its operations in the context of developing and developed countries.

## 2.2 Ridesharing

Ridesharing is defined as ‘any use of an automobile that includes, in addition to the driver, non-dependent passengers, without a fully commercial/formal relationship, with an agreement to share the ride, and with or without sharing the travel costs’ (Amirkiaee & Evangelopoulos, 2018, p. 10). With this definition, a carpooling service is included in ridesharing (Amirkiaee & Evangelopoulos, 2018). In this section, the development of ridesharing will be presented from the start, together with the contributing factors in its growth. The difference between traditional taxis and ridesharing are also discussed, and the benefits and drawbacks of ridesharing generally, and in developed and developing countries in particular, are outlined.

Among the sharing economy businesses, ridesharing is the most popular due to the large number of users (Choe, Garza, Ural & Woolfalk, 2016). In the US, most sharing economy participants are Uber drivers, who constitute around one per cent of the labour force, while a small number of others work on other types of platform. This has led to an increase in research on ridesharing, to examine the effect of the sharing economy (Srnicek, 2017; Valente, Patrus & Guimarães, 2019). This research will use the ridesharing definition from Amirkiaee and Evangelopoulos (2018), which has been adopted in various subsequent research, such as Yuana et al. (2019).

The peculiarity of the ridesharing model built on ridesharing platform operators is that it not only focuses on the quantity of vehicles possessed but also on the physical asset-less model (i.e., owning fewer assets). Business growth has relied on the platforms that collect and analyse data to lower costs and gain profits. Therefore, when the firms would like to expand their business and capacity, they will invest in infrastructure in the form of mergers and acquisitions with other firms, or maybe renting hardware and software from the cloud system (Srnicek, 2017). Likewise, they can expand by increasing their users to strengthen their network, adding more value to their data and platforms (Srnicek, 2017).

The number of ridesharing platforms has grown rapidly in the past decade. These platforms were first developed in the US, starting with the 2012 launch of Lyft, a matching service that connected short-distance riders and passengers within the community (Sundararajanm, 2016). The company soon decided to improve their offer by enabling drivers to charge for trips they had not planned to travel (Slee, 2011). During the development of the Lyft platform, BlaBlaCar, founded in 2006, expanded the Lyft idea to serve people needing long-distance rides in France. However, BlaBlaCar drivers could not derive sufficient income due to the cheap fares offered to passengers, making them ineligible for commercial insurance and preventing them from meeting

income tax requirements. Around this same time, Uber, founded in 2009 in the US, declared itself a ridesharing service in 2013 with the slogan 'Everyone's private driver' (Slee, 2011; Sundararajan, 2016).

During the growth of ridesharing, mobile applications have played an important role. The platforms connect passengers, ridesharing drivers and the companies, process payments via credit card and collect data (Srnicsek, 2017; Yuana et al., 2019). The rapid rise in the number of mobile phone users encouraged the ridesharing platform operators to emphasise the development of platforms, especially in the form of mobile applications, rather than websites (Srnicsek, 2017). Especially in developing countries, accessing consumers via mobile applications has become one of the most significant marketing strategies (Srnicsek, 2017).

Ridesharing services differ somewhat from traditional taxis. In the case of taxis, passengers can call a taxi company or signal on the street to request service from the taxi drivers, who drive around the city seeking people who need rides (Schechtner & Hanson, 2017). An important concern when using traditional taxi services in developing countries is safety. Because the drivers' income depends on the hours of rides provided to passengers, they may work for too long without taking a break, which may lead to serious traffic accidents (Schechtner & Hanson, 2017). Also concerning are the crimes committed by drivers that cannot earn sufficient income if they have had too few rides (Schechtner & Hanson, 2017). Unstable fares also cause trouble for passengers, who have to negotiate the price every time before they ride. Sometimes, passengers are charged more than usual when drivers have to get through congested traffic (Schechtner & Hanson, 2017).

Overall, three key benefits of ridesharing can be identified: the convenience of requesting the ride through a mobile application, having more transportation options and reducing the impact on the environment. At the same time, previous research has pointed out three criticisms of ridesharing: industry disruption, law and regulation challenges, and low benefits for ridesharing drivers.

Ridesharing could not have become so popular without the strong support of passengers. Hamari et al. (2016) argue that enjoyment of using the service is the main motivation for passengers' loyalty. People are encouraged to download and use the platforms when their mobile applications, and matching, real-time GPS and feedback systems are easy to use (Hamari et al., 2016). Ridesharing has rapidly grown in popularity over the last decade, especially in developed countries such as the US, where more than 45 per cent of commuters participate in ridesharing platforms (Lee, Chan, Balaji & Chong, 2018). Moreover, if passengers or ridesharing drivers are not

satisfied with one particular platform, it is easy and cheap to switch to another one (Apte & Davis, 2019; Bergh, Funcke & Wernberg, 2018).

The variety of ridesharing platforms and other transportation services, including public transportation, allows passengers to decide which service they enjoy using (Ganapati & Reddick, 2018). Some options, such as ridesharing along a specific route, may be cheaper than using commercial taxis. Some US cities have even introduced ridesharing applications to support public transport as a complement to public transportation, to reduce demand for parking space (Ganapati & Reddick, 2018). Participants in ridesharing can enjoy their choice of transport as an environmentally responsible one in view of research stating that ridesharing helps to reduce carbon emissions and alleviate global warming (e.g., Ganapati & Reddick, 2018; Valente et al., 2019). Frenken (2017) noted that BlaBlaCar reported a reduction of one million tons of carbon dioxide emissions over two years.

While ridesharing provides various benefits, especially the ability to access services when needed, it has had several negative impacts on society. One of these disadvantages has been the rapid industry disruption resulting from the introduction of ridesharing (Choe, Garza, Ural & Woolfalk, 2016). For example, the automotive industry has been disrupted by the shift of expenditure away from everyone purchasing, owning and fixing their own vehicles and towards on-demand transportation services (Sundararajan, 2016). In addition, due to the similarity of services provided, taxi and car rental businesses have been warned to scrutinise the performance of ridesharing services like Uber, which could be expected to take most of the market share considering Uber's claims that its service quality is better than that of the local taxis (Bergh, Funcke & Wernberg, 2018; Choe et al., 2016; Frenken & Schor, 2017; Henten & Windekilde, 2016; Sundarajan, 2016). If local taxi businesses do not improve their performance, their traditional business models could be replaced by the new ones of ridesharing, despite researchers' prediction that these new businesses would provide alternative services (Apte & Davis, 2019; Henten & Windekilde, 2016).

Ridesharing is unregulated in some countries. There is controversy around operators' registration since they claim to be technology companies rather than transportation companies. Operators exploit the lack of regulation regarding ridesharing, to avoid complying with insurance and tax requirements and other costs (Goodale, 2014; Slee, 2011; Srnicek, 2017; Valente, Patrus & Guimarães, 2019; Yuana et al., 2019). Moreover, as ridesharing drivers are not professional drivers, despite providing transportation, they are not required to register with the usual authorities, especially as regards paying tax, like taxi drivers are (Bilbil, 2019; Slee, 2011; Srnicek, 2017;

Sundararajan, 2016). That legalisation has not caught up with the rapid development of these technological platforms and the sharing economy causes concern, not only for professional drivers but also for other interest groups, such as passengers, local businesses and ridesharing drivers (Bilbil, 2019; Schechtner & Hanson, 2017; Srnicek, 2017).

Ridesharing is considered a significant force fuelling the gig economy. Uber drivers, for example, are sometimes called micro-entrepreneurs; they own the assets and register with the platform to provide the services. They work when they want, but may be forced to work longer hours to earn the income they want (Anner et al., 2019; Slee, 2011; Sundararajan, 2016). Ridesharing drivers are not employed by any company (Anner, Pons-Vignon & Rani, 2019; Makovský, 2017; Slee, 2011). Rather, the platforms outsource to them as independent contractors. This has enabled the platforms to ignore drivers' employment benefits, especially car insurance (Anner et al., 2019; Slee, 2011; Srnicek, 2017; Sundararajan, 2016; Valente et al., 2019; Yuana et al., 2019).

While ridesharing drivers may appreciate the flexibility to jump into the platforms when they need, they have to consider their car ownership costs. For example, when evaluating their income from providing ridesharing services, they have to consider the professional driver licenses, commercial driver registrations and required insurances. By contrast, taxi medallion leasing companies, which hire drivers as their employees, provide both the car and help covering some of its costs (Slee, 2011). Cars serving ridesharing platforms are also potentially worth less than conventional taxis, which are used only for work. Because ridesharing cars are used both personally and professionally, they have a higher depreciation cost (Valente et al., 2019). Therefore, ridesharing drivers face high entry barriers and some risks. The pressure to earn a suitable income may motivate them to give poor and unsafe services to passengers, in turn increasing crime associated with ridesharing services and fuelling future social unrest.

### **2.3 Ridesharing in developed and developing countries**

The difference in context between developing and developed countries might encourage ridesharing platform operators to adapt to these different conditions. This section discusses the six key similarities and differences between ridesharing in developing and developed countries. According to the existing literature, the similarities include the growth of ridesharing, key ridesharing features and the operation of ridesharing; some of the differences include the readiness of infrastructure, competition in the transportation industry and legal issues.

Ridesharing is growing significantly in both developed and developing countries. Uber is the leader of the ridesharing market, operating in more than 50 countries and around 200 cities (Harding et al., 2016; Liu & Wayne Xu, 2019), while Didi Dache and Kuaidi Dache took most of the domestic ridesharing market in China (Liu & Wayne Xu, 2019). Due to the explosive growth of mobile phone users in developing countries, it is easier for ridesharing applications to be used by both ridesharing drivers and passengers. The number of drivers who can use smartphones increased dramatically in the countries in which ridesharing is growing, demonstrating people's ability to adopt and leverage the new technology (Liu & Wayne Xu, 2019).

In both developing or developed countries, ridesharing is convenient for ridesharing drivers and passengers. The convenience offered by the technology used by the platforms, for example an online payment system, encourages people to use those platforms (Hamari et al., 2016; Harding et al., 2016; Liu & Wayne Xu, 2019). The desire to be environmentally responsible is another factor encouraging the use of ridesharing platforms, especially with the purpose of saving energy and reducing air pollution from petrol emissions (Frenken & Schor, 2017; Mayasari & Chrisharyanto, 2018; Schechtner & Hanson, 2017; Yuana et al., 2019). In addition, urban expansion promotes the growth of ridesharing. In Indonesia and the Philippines, for example, public transportation has not been able to develop and expand to meet the demand of the increasing number of commuters in the cities (Schechtner & Hanson, 2017; Yuana et al., 2019). The resulting explosion in vehicle ownership resulted in serious traffic congestion (Yuana et al., 2019). The ridesharing services help reduce the number of vehicles on the roads and therefore alleviate congestion.

Ridesharing operates similarly in both developed and developing countries. In some cities in the US, ridesharing platforms are welcome to integrate with local transportation as alternatives for serving the communities (Iacobucci, Hovenkotter & Anbinder, 2017). The service can also complement public transit such that ridesharing provides the trip from home to a transit centre, enhancing the public transportation experience (Ganapati & Reddick, 2018). Some organisations accept invoices from ridesharing platforms that provide transportation for their employees, as a part of organisational operations (Ganapati & Reddick, 2018). However, some cities remain hesitant to accept the ridesharing platforms (e.g., Istanbul in Turkey), due to concerns that the service will substitute entirely for traditional public transportation options, rather than complementing them (Bilbil, 2019; Ganapati & Reddick, 2018; Iacobucci et al., 2017).

Previous research has established that there are some clear differences in how ridesharing operates in developed and developing countries. In developing countries,

the platforms have been developed to offer an efficient and affordable transportation service; in developed countries, the focus is on convenience and environmental sustainability. The ridesharing applications includes not only ridesharing platforms for cars, but also for motorcycles (Yuana et al., 2019). Motorcycle transportation services are commonly used in developing countries, especially at rush hour, due to traffic congestion. However, in some countries, these motorbike taxis are considered informal transport, outside official registration (Mayasari & Chrisharyanto, 2018; Yuana et al., 2019). Currently, the governments of developing countries are struggling with regulating ridesharing by car. The growth of ridesharing by motorbike raises further issues for governments. The question is whether to legalise ridesharing to complement existing transport services or ban it in the interests of passenger safety and protecting local businesses (Yuana et al., 2019).

The developed countries are ready for ridesharing. Some developing countries, where the ridesharing services are launching, are still struggling to implement ridesharing systems. In the environment of developed countries, the ridesharing economy plays a significant role in the markets because its systems, including the technology and the payment system, are well adapted to the locality (Harding, Kindlikar & Gulati, 2016). The existing infrastructure in developed countries makes it easier for the ridesharing platform operators to integrate their platforms into the market. In the US, almost 50 per cent of the population is familiar with the sharing economy, and around half of them participate in the ridesharing platforms as passengers or ridesharing drivers (Ganapati & Reddick, 2018). However, in some developing countries, the implementation of ridesharing systems is limited by the lack of technological infrastructure. Not all the population have a credit or debit card, or even a bank account. For example, more than 70 per cent of Filipinos do not have a bank account, which means that if the ridesharing platforms operating in the Philippines rely on online payments through a credit or debit card, they would only be able to cover around 30 per cent of passengers (Schechtner & Hanson, 2017). Therefore, ridesharing platforms operating in developing countries can accept cash or card (Schechtner & Hanson, 2017).

Within the transport market in developed countries, there is intense competition for market share among the ridesharing platforms and other forms of transportation. The rise of ridesharing, with its proliferation of platforms, has caused a dramatic fluctuation in demand and supply, especially compared to the early days of ridesharing, when a single platform monopolised the market (Harding et al., 2018). As a result, some traditional transportation services have been affected. For example, there may no longer be a need for taxi companies, which so far have acted as legal entities to provide vehicles, and have acted as the intermediary between the government and taxi

drivers to organise taxi registration and tax collection (Ganapati & Reddick, 2018; Slee, 2011). In developed countries, the rise and fall of transportation businesses generally depends on market mechanisms.

Local businesses in developing countries, especially local transportation services, have not accepted the rise of ridesharing as well. Social tensions arise from the unfair competition between ridesharing and traditional taxi services. Local taxi services are required by the government to pay to maintain and insure their vehicles, among other costs, but ridesharing drivers are not, despite their provision of a transportation service similar to that of the local taxis. Therefore, in some countries, ridesharing is illegal (Harding et al., 2016; Liu & Wayne Xu, 2019; Schechtner & Hanson, 2017). For example, in the Philippines, Uber was fined on the basis of illegal operation in 2014 (Schechtner & Hanson, 2017).

Meanwhile, in developed countries, ridesharing has been criticised more for its overexploitation of labour than for the unfair competition with local businesses. Ridesharing drivers have in some contexts banded together and established a union to increase their benefits and secure better working conditions (Goodale, 2014). In addition, the Taxicab Service Association in the US argued that taxi and ridesharing services are the same. Thus, they argue that ridesharing platforms have to comply with the same regulations as taxi services (Goodale, 2014).

However, there is no one model of legalisation for ridesharing that can be generalised and applied to the rest of the world. The regulation of the platform operators remains controversial, with issues in terms of tax, labour, competition and anti-discrimination (Bilbil, 2019). In the US, each state has different regulations. Among the cities in the US that approve of ridesharing platforms, the cities control and regulate the markets, as well as the ridesharing platforms (Bilbil, 2019). Conversely, those cities that remain hesitant to permit ridesharing's operation consider issues with existing regulations, such as driver and vehicle registration, and the negative impacts of ridesharing platforms, such as in terms of fare calculation, driver background checks and employment rights (Bilbil, 2019).

Recently, many countries have legalised ridesharing for local benefit. For example, in the Philippines, ridesharing platforms were legalised in 2015 by the Land Transportation Franchising and Regulatory Board (LTFRB; Schechtner & Hanson, 2017). Subsequently, the country adopted national regulations for ridesharing platforms, which were categorised as transport network companies (Schechtner & Hanson, 2017). Likewise, California's Public Utilities Commission has defined Uber and

other ridesharing platforms as transport network companies; that is, companies that provide transportation services for compensation (Bilbil, 2019; Goodale, 2014).

## **2.4 Frameworks used to analyse ridesharing**

To understand the impact of the operation of ridesharing platforms in developing countries, researchers use various approaches but focus on analysing the impact on, and the roles of, the four main interest groups of ridesharing: passengers, local businesses, ridesharing drivers and government. Bergh, Funcke and Wernberg (2018) analysed the introduction of a sharing economy that challenges society and legal quality. Schwartz and Einarson (2018) researched the backlash against the sharing economy from four perspectives: existing industries claiming to have been disrupted by ridesharing platforms; government, whose regulations, especially regarding taxes, are challenged by the rise of ridesharing; passengers concerned about the trustworthiness and safety of the service; and ridesharing drivers concerned about the lack of labour protections and benefits. This model aligns with the research of Yuana et al. (2019), who compared the ridesharing operations in Indonesia and the Philippines. Therefore, this research will use the four interest groups—passengers, local businesses, ridesharing drivers and government—as the framework for addressing the research question of how India and Thailand are adapting to the rise of ridesharing. In addition, responses from the platform operators will be considered in the analysis to provide a more dynamic understanding of adaptation.

The following subsections will outline the key issues in ridesharing from the perspective of passengers, local business, ridesharing drivers and government.

### **2.4.1 Passengers**

From a passenger perspective, the two key issues regarding ridesharing are the feedback and rating system, and safety issues. First, how the feedback and rating system functions will be presented, followed by an explanation of the ineffectiveness of the system. Second, the safety issues will be discussed, including physical risks, discrimination and data privacy.

The first key issue discussed in the literature from the point of view of passengers is the function of the feedback and rating system. Ridesharing platforms use a bilateral feedback and rating system to create mutual trust between passengers, drivers and the ridesharing platform operators. The feedback and rating system helps to establish this mutual trust by allowing both passengers and ridesharing drivers to evaluate each other, giving them the opportunity to report their experience of the service (Ganapati & Reddick, 2018; Sundararajan, 2016). Positive feedback builds a good reputation and

brand certification, giving other passengers more confidence in the service (Bergh, Funcke & Wernberg, 2018; Lee, Chan, Balaji & Chong, 2018; Schwartz & Einarson, 2018; Sundararajan, 2016). However, bad feedback can rapidly and completely ruin a business, due to the spread of this information through the online platform (Botsman & Roger, 2011). In the case of Uber drivers, if drivers get a low rating, they will no longer stay in the system (Slee, 2011). Further, local government, together with non-government organisations previously supportive of ridesharing, may ban these services to protect passengers (Srnicek, 2017).

However, the feedback and rating system has not functioned as well as was first expected. Research in the US found that new passengers and those who no longer need the service may not care whether the service will improve; thus, they may not provide any feedback (Slee, 2011). Further, passengers who experience bad service prefer not to rate at all rather than give a bad rating (Slee, 2011). As a result, a driver's rating may not accurately reflect the quality of the service (Slee, 2011; Sundararajan, 2016). Another finding was that ratings from previous passengers may influence later ratings (Slee, 2011). Current technology can also allow service providers to boost their rating for a fee through other online platforms (Slee, 2011). Therefore, while the feedback and rating system may help passengers to screen a service based on others' experiences of it, these ratings may not be a reliable guide as to the quality and safety of the passengers and quality of the service (Slee, 2011; Sundararajan, 2016).

The feedback and rating system also contributes to passengers' confidence in using the service with safety. However, absent or lenient laws and regulations regarding ridesharing services make them risky for passengers. The security risk is the main concern for passengers deciding to use the service. Security risk is defined as physical injury and property loss caused by a circumstance, condition or event. In the case of ridesharing, the circumstance is the service being provided through a sharing platform (Lee, Chan, Balaji & Chong, 2018). In the last few years, incidents of sexual assault by Uber drivers have occurred in New Delhi and Chicago (Harding et al., 2016). This led to a review of Uber's background check procedures, which revealed that the entry barriers to the platforms are so low that drivers are not required to give their fingerprints, have their information checked and submit to a drug test (Harding et al., 2016). Moreover, Uber refused to take responsibility for the incidents, claiming that they are just a technology platform company that matches drivers with passengers, and that these drivers are not their employees, just temporary contractors (Slee, 2011).

In addition to their physical security, discrimination is another concern for passengers. Patterns of discrimination against race and visible disability has prompted public

concern regarding ridesharing. In some countries where the issue of discrimination is intense, drivers are known to keep passengers of a different ethnicity or with a visible disability (e.g., blind people with guide dogs or disabled people with wheelchairs) waiting for a long time or cancel the ride (Frenken & Schor, 2017; Slee, 2011; Sundararajan, 2016). In response, Uber claimed that the cars used in ridesharing do not belong to the companies, but to the drivers who use them personally and professionally. However, there are costs for Uber drivers who reject passengers. The rejection fee is applied for rejections without appropriate cause, and drivers are expected to accept 90 per cent of rides to prevent their removal from the system (Slee, 2011).

Another current concern regarding the sharing economy is that of data privacy. All participants in digital platforms, including passengers and ridesharing drivers, are concerned about data privacy, having taken the warning from the leaking of data from the big-name social media platforms. To use a ridesharing platform, passengers and drivers are required to fill in their personal details and location data, which could possibly be accessible to other non-intended parties, and potentially used maliciously (Lee, Chan, Balaji & Chong, 2018; Sundararajan, 2016). Using the participants' personal information, the platform owner (e.g., Uber) can also track passengers' activities without asking for consent (Slee, 2011). However, currently, the platforms' data security systems aim to protect data from being used for any non-intended purpose.

#### **2.4.2 Local businesses**

The biggest concern from the perspective of other local transport providers is the risk of disruption by ridesharing. The introduction of ridesharing platforms has disrupted traditional transportation services, especially taxi companies, due to the similarities of their operations. However, compared to ridesharing drivers, traditional taxi services must invest more capital before beginning operations (Slee, 2011). Taxi medallion leasing companies have to register with local authorities regarding their business operations, and process security checks and permits for each driver (Slee, 2011; Srnicek, 2017). Taxi drivers rent permits to operate from the taxi medallion leasing companies, and pay a percentage of their daily income to these companies, to limit their liability (Harding et al., 2016). By contrast, ridesharing drivers are not required to undertake this complicated process, yet can nevertheless operate a similar service, and take a market share at a lower rate, decreasing the income of taxi companies and drivers (Slee, 2011; Srnicek, 2017; Sundararajan, 2016).

The differences between taxi and ridesharing services cause conflict between them. The taxi drivers feel they are being taken advantage of, triggering protests and turf wars over unfair competition, especially in large cities in developing countries, where taxis are one of the main types of transportation (Ganapati & Reddick, 2018; Harding et al., 2016). Further, ridesharing platforms are expected to eliminate the role of taxi medallion leasing companies. In some developing countries, local authorities subsidise taxi medallions and govern the taxi service in the community (Slee, 2011). Therefore, these interest groups, the local businesses and the government, may foster social unrest by demanding ridesharing platforms to consider their operations.

### **2.4.3 Ridesharing drivers**

The literature regarding ridesharing discusses the challenges that ridesharing drivers face. The four key issues emerging from the literature are ridesharing drivers as contributors to the gig economy, the lack of reliability of the driver-recruitment process, drivers' poor benefits and their low bargaining power.

First, ridesharing sits within the gig economy, due to the relationship of the driving partners with the ridesharing platform. The number of workers who participate in micro-tasks jobs, including ridesharing, is increasing. Taeihagh (2017) describes micro-tasks jobs as part of the informal labour market in crowdsourcing, which requires low-to medium-skilled workers. In the case of ridesharing, drivers are engaged in the precarious, uncertain and low-paid work typical of the gig economy. In the gig economy, the 'majority of the microtasks on digital platforms are simple and repetitive, and do not require any specific skills, and do not provide any prospects for future career development' (Anner et al., 2019, p. 10). This raises questions regarding the trade-off between independence and benefits, including in terms of job protection and the future of work (Moist, 2018; Sundararajan, 2016; Valente et al., 2019).

Second, the driver-recruitment process used by ridesharing platforms is not efficacious. The ridesharing platform operators do not concern themselves with drivers' backgrounds, because drivers and passengers contact each other online. The low entry to the platform, due to the lack of background checks as compared to the stringent requirements of traditional taxi companies, makes it easier to be a ridesharing driver than a taxi driver, and the number of ridesharing drivers has been increasing significantly (Slee, 2011). What seems to be important in the recruitment process in the context of ridesharing is the driver's ownership of a vehicle and readiness to serve, rather than their professional experience as a driver, which strengthens the job of rideshare driving as a casual work (Ganapati & Reddick, 2018; Sundararajan, 2016; Valente et al., 2016).

Becoming a ridesharing driver is not easy for someone living in a developing country. The first and most important condition for a driver is that they have their own car. However, in their study of ridesharing in Brazil, Valente et al. (2019) found that the financial condition of potential ridesharing drivers made car ownership the main challenge they had to overcome. For someone who can afford a car, it is easier to become the ridesharing drivers. However, a large number of people were struggling to find a car, and some drivers were borrowing cars from their friends and family while participating in the ridesharing platform. Finding a car is made more difficult because Uber requires that cars used by their drivers meet a minimum set of criteria (Valente et al., 2019). Some drivers have to seek assistance from informal renting systems that provide cars owned by anonymous individuals (Schechtner & Hanson, 2017; Valente et al., 2019). In Brazil, due to the pressure of vehicle ownership, and the obligations that come with that, Valente et al. (2019) concluded that while drivers enjoy the flexible working hours, their working conditions are poor.

Third, ridesharing drivers do not have the stable employer–employee relationship that they would if in permanent employment (Ganapati & Reddick, 2018). Since the drivers are considered independent contractors on the platform, the ridesharing platform operators (e.g., Uber), who claim that they are only technology companies that match drivers with passengers on demand, take no responsibility for drivers' working conditions, and drivers receive no insurance or sick leave (Slee, 2011; Sundararajan, 2016). Moreover, when the platform engages in certain marketing campaigns to increase users, drivers may have to accept jobs that pay less than the minimum wage (Slee, 2011; Sundararajan, 2016; Moist, 2018). Given the working conditions typical of ridesharing, drivers have to work long hours, for less money (Sundararajan, 2016; Taeihagh, 2017).

Finally, drivers have low bargaining power due to efforts of ridesharing platform operators to reduce costs, and the future possibility of replacing workers with self-driving vehicles (Anner et al., 2018; Sundararajan, 2016). Thus, drivers have to accept the platforms' conditions if they want to continue using them. In addition, drivers' performance is evaluated by passengers through the feedback and rating system. If drivers get a low rating (e.g., for Uber, a rating of lower than 4.7 out of 5) or fail to accept more than 90 per cent of ride offers, they will be removed from the system (Slee, 2011). Since the success of ridesharing comes from depressing costs, especially in the labour market, drivers have to work more, and take all responsibility if anything harmful to the ridesharing service occurs (Sundararajan, 2016).

#### **2.4.4 Governments**

In the research on ridesharing in developing countries, the issue of outdated laws and regulations features in many discussions. Various authors have recommended that the governments of these countries adapt existing transport regulations and review the related regulations, while the ridesharing platform operators should adapt to the regulatory environments of the countries in which they operate. In developed countries, ridesharing is already regulated.

Laws and regulations in developing countries have not kept pace with the rapid developments in ridesharing technology (Bilbil, 2019). This has created gaps that allow platform operators to challenge the regulations. In addition, these companies avoid paying labour tax and skirt other regulations that taxi industries comply with (Frenken & Schor, 2017; Moist, 2018; Slee, 2011). Ridesharing platform operators also put little effort into ensuring universal access for the disabled (Slee, 2011). This causes social unrest against ridesharing platform operators, making it urgent that governments address these issues (Frenken & Schor, 2017; Harding et al., 2016; Liu & Wayne Xu, 2019; Moist, 2018; Schechtner & Hanson, 2017; Slee, 2011; Smicek, 2017; Sundararajan, 2016).

With the rapid rise of the sharing economy and ridesharing, researchers recommend first that governments adopt transportation policies and legal frameworks for mutual benefit (Bergh, Funcke & Wernberg, 2018; Jing & Sun, 2018; Taeihagh, 2017). For example, the government of the Philippines, through the LTFRB, legalised ridesharing services as transport network companies in 2015, allowing these services to operate as an alternative means of transportation in Manila, on the condition that they operate solely through mobile applications, including to match drivers and passengers and process cash and online payments (Schechtner & Hanson, 2017; Yuana et al., 2019).

Researchers also recommend that governments review other laws and regulations, such as labour laws, and adapt them to ridesharing (Yuana et al., 2019). Sundararajan (2016) and Moist (2018) argued that some labour laws and regulations might bend to private interests rather than support the public. The first concern is wages and protections for drivers participating in ridesharing operations. Workers should have wages and protections sufficient for a living (Moist, 2018). Labour policy should not discriminate between employees and independent contractors, but should consider drivers as workers for the firms or organisations such that they receive a social safety net and supports to the same level as people in traditional employment (Sundararajan, 2016; Taeihagh, 2017). Privacy policies should also be available and strengthened to protect online users (Slee, 2011; Moist, 2018).

Ridesharing firms themselves need to adapt to local regulations (Bergh, Funcke & Wernberg, 2018; Jing & Sun, 2018; Taeihagh, 2017). The 'quantity, quality and economic controls on operators', or QQE, framework is the standard regulatory framework with which taxi companies and ridesharing operators have to comply, and ridesharing operators should do the same (Harding et al., 2016). This framework covers the quality of the vehicles in relation to their age, appearance and disability accessibility; and economic controls for fare setting; the quantity of vehicles registered and allowed to operate with the companies; (Cooper, Mundy & Nelson, 2010; Harding et al., 2016; Slee, 2011). Since the quality of a ridesharing service is impossible to know until after passengers have used it, Harding et al. (2016) suggested that a minimum standard for the service and price controls should be set to protect passengers' rights. If government does not limit the number of ridesharing vehicles and imposes no quality control, more cars will fill the roads, affecting the profits of existing taxi drivers and the price of similar transportation offerings, lowering incomes and the quality of the service as drivers seek to reduce their costs, and negatively impacting the environment through increased pollution (Harding et al., 2016). Therefore, there is pressure on the government to regulate ridesharing services, to protect the benefits of all relevant interest groups.

## **2.5 Conclusion**

Ridesharing constitutes a part of the sharing economy, offering opportunities for ridesharing drivers to provide transportation services by sharing seats to passengers for extra earnings. The literature has identified that passengers are particularly concerned about the trustworthiness and safety of these ridesharing services, since mutual trust between passengers and drivers is developed solely through the online platform. Another issue in developing and developed countries is that ridesharing disrupts local transportation businesses, potentially leading to the elimination of local taxis. Local taxi companies argue that ridesharing platform operators are not subject to the same costs as they are, such as insurance, regular vehicle maintenance and licencing, yet can provide the same service. The recruitment of ridesharing drivers has been criticised as ineffective, and ridesharing drivers are considered a main contributor to the gig economy and to receive low benefits from ridesharing platforms. In terms of laws and regulations, some countries, such as the Philippines, have legalised ridesharing, but many countries are yet to legalise it because of the safety issues for passengers, the risk of local business disruption, and the lack of benefits for ridesharing drivers.

# Chapter 3: Research Methodology

To answer the research question ‘How are India and Thailand adapting to the rise of ridesharing?’, this research adopts a qualitative and interpretive approach, and employs a comparative case study of the development of ridesharing in India and Thailand. The open question of ‘how’ requires subjective meaning-making as well as detailed explanation and a deep understanding of the issues to answer it (Mabry, 2008; Yin, 2011). Based on the framework presented in the literature review, the research question will be explored from the point of view of the four interest groups that are directly affected by its rise: passengers, local businesses, ridesharing drivers and government. This research will explore how these interest groups view ridesharing, respond to the issues around ridesharing, and interact with the opportunities and challenges presented by ridesharing platforms. In addition, how governments are adapting to ridesharing will be discussed, including in terms of the challenges for the other three interest groups. In addition, responses by the ridesharing platform operators will also be considered and shed light on how they are adapting to ridesharing, this research looks at discussions in online news article articles and government and NGO reports. However, first, the research methodology and methods need to be outlined and justified as the processes that best address the research question.

Eriksson and Kovalainen (2016) define research methodology as the ‘organising principles to guide the research process and design’ (p. 16). The research methods are defined as the research tools for collecting and analysing the data (Eriksson & Kovalainen, 2016; Gray, 2018). Online news articles and reports are the primary data source, allowing the investigation of all relevant perspectives within the limited research time frame.

This chapter will outline the methodological choices made in this dissertation to address the research question. Sections 3.1 and 3.2 clarify the research methods, including an explanation of why this research will apply comparative case study. This is supported by the explanation of why other similar research methods were excluded. Section 3.3 explains the data collection process, including what kinds of data are included and excluded, and how the data are approached. Section 3.4 explains the data analysis procedure, and Section 3.5 outlines the ethical issues of this research. A conclusion is given in Section 3.6.

### **3.1 Research paradigm**

Research can be guided by different paradigms. A paradigm consists of the frameworks and guidelines for research informing how the research will be approached, including accounting for the relationships between researchers and subjects and data collection and analysis (Eriksson & Kovalainen, 2016; Gray, 2018; Killam & Carter, 2013). To conduct this research, it was important to draw data from people's experiences of the implementation of ridesharing in India and Thailand. This research will study the impact of ridesharing on the four interest groups identified in the literature review as well as how they interact with, and respond to, the issues around ridesharing. People's experiences can be various. Different people have different experiences of an issue depending on their particular conditions and contexts (Eriksson & Kovalainen, 2016). Therefore, it was necessary to adopt a qualitative research approach for this research, to provide a rich, in-depth understanding of the complexities of ridesharing adaptation in India and Thailand.

This research is situated within the interpretive paradigm. This means that the research will consider reported lived experience as data. In other words, the research will be conducted through the interpretation of qualitative data (Eriksson & Kovalainen, 2016; Gray, 2018; Mabry, 2008) describing the lived experiences of the identified interest groups. The results of interpretive research may produce various outcomes, depending on how the researcher interprets the data. Qualitative data from lived experience is also considered intersubjective, which means it can help to understand shared common interests; that is, the shared understandings and assumptions among ridesharing's interest groups (Kim, 2001; Rogoff, 1990).

The qualitative data sources used include online news articles and reports, which help explore the ridesharing issues that impact the interest groups, their opinions on the issues, how they responded, their plans to adapt to ridesharing and how the ridesharing platforms are adapting and improving their systems (Yuana et al., 2019). The discussion of the ridesharing issues from the perspectives of the four interest groups will help deepen the understanding of these issues in the contexts of these two countries, thereby addressing the research question.

### **3.2 Case study**

Case study is defined as the investigation of a phenomenon in its complexity in a real-life context related to history, the economy, technology, society or culture (Eriksson & Kovalainen, 2015; Stake, 1995; Yin, 2003). Case study allows the researcher to explore, and deepen their understanding of, complex phenomena, including human

perceptions, beliefs, values and experiences, using a variety of primary qualitative (non-numeric) data sources (Baxter & Jack, 2008; Mabry, 2008; Yin, 2011). In this research, to investigate the contexts of India and Thailand, a comparative case study was selected. By considering the common patterns and properties of the ridesharing issues across the Indian and Thai contexts, together with previous research undertaken in other developing country contexts (Eriksson & Kovalainen, 2015), it is expected that this study will contribute to the development of a framework for understanding how developing countries adapt to ridesharing (Baxter & Jack, 2008).

There are many types of case study. A researcher should determine what type of case study will be applied in the research as the research methodology. Stake (1995) identified three types of case study: intrinsic (a single case), instrumental (a single case with sub-units) and collective (multiple cases). Yin (2003) described four types: explanatory, exploratory, descriptive and multiple case studies. Explanatory case studies identify explanations for issues that are too complex for analysis using quantitative data, while exploratory case studies allow researchers to discover the unclear issues. Descriptive case studies are used to understand real-life incidents or phenomena, and multiple case studies allow cases to be compared and contrasted (Baxter & Jack, 2008; Yin, 2003).

Case studies can also use different research approaches, such as intensive and extensive. Intensive case studies allow researchers to consider one or a few cases as the main focus of the study (Eriksson & Kovalainen, 2015). The empirical data of the intensive case study is the perspectives, conceptions, experiences and interactions of people towards an issue, which are then used to generate the contextualised description, interpretation and explanation. However, these data cannot inform theory for another context (Eriksson & Kovalainen, 2015). Conversely, the focus of the extensive case study is the development or testing of a theory through its application in a chosen context without attempting to understand the individual cases themselves (Eriksson & Kovalainen, 2015). The data for this kind of case study includes matching patterns, mechanisms and properties in the context (Eriksson & Kovalainen, 2015).

Among these types of case study, there are different ways that researchers can position themselves to collect the data. Participant observation allows researchers to be in the phenomenon as internal observers, and the result of the research can be the perception of the researcher of the phenomenon (Mabry, 2008). However, if researchers are positioned as external observers, the data will not be affected by the researcher. This can be challenging for researchers, as they may not receive data on lived experience directly (Mabry, 2008).

In addition, within a research method, inductive and deductive research approaches can be identified. The inductive research approach, which is commonly used in case study and other qualitative research approaches, involves observing, interpreting, and then reporting the result, and can be used to construct theory, a framework or a concept (Eriksson & Kovalainen, 2015). By contrast, the deductive research approach starts from a theory and then experiments or tests the hypothesis (Eriksson & Kovalainen, 2015). This research combines both the inductive and deductive approaches. Rather than relying solely on the inductive approach, the data collection process started from an understanding of the perspectives of the four interest groups, as used in the ridesharing literature. Likewise, the research is not purely deductive because the purpose of this research is not to test an existing theory, but to describe and analyse the ridesharing context in the settings of India and Thailand to develop a new framework explaining how developing countries adapt to ridesharing. The key issues for each interest group will be inductively identified from the news items and reports through the thematic analysis of the data.

In this research, a comparative case study will be applied as the main research methodology. Using a comparative case study will allow the Indian and Thai cases to be analysed, compared and contrasted (Baxter & Jack, 2008; Yin, 2003, 2011). This research follows the guidelines of Yin (2003) on comparative case studies, and Yuana et al. (2019) on collecting data from news articles and categorising themes.

### **3.3 Data collection**

To answer the research question, a comparative case study is used as the main research method, with India and Thailand considered as individual cases, to then be compared and contrasted. Comparative case studies require a variety of data sources as evidence, and may include primary data (e.g., interviews) and secondary data (e.g., documentation and reports; Baxter & Jack, 2008; Eriksson & Kovalainen, 2015; Yin, 2011). The data for this study will be secondary data; that is, news articles and reports available online, published by either local or international publishers. This is similar to the research method used by Yuana et al. (2019), whose ridesharing research was based on news articles from Indonesia and the Philippines, with the authors choosing two news publishers from each country as the main data sources. The result of that research revealed the impacts of ridesharing on passengers and ridesharing drivers, and showed how government addressed ridesharing issues. In the present study, secondary data were located using the advanced search function in the Google search engine, specifying the search terms, region and date range. The data collected were expected to help reveal the ridesharing issues related to the four interest groups of

passengers, local businesses, ridesharing drivers and government (Bergh et al., 2018; Schwartz & Einarson 2018; Yuana et al., 2019).

Since this research relies on data located via a search engine, it was important to use search terms that would identify as much relevant data as possible, as this would directly affect the research result. An initial search was conducted to better understand how Google's advanced search function worked, and to determine the appropriate date range of the data to be included in the research. To ensure the search identified the maximum number of relevant data sources, the search term 'ridesharing OR ride-hailing OR ride-sourcing' was used. To limit the data to the Indian and Thai contexts, India and Thailand were entered as the regions for the advanced search. Finally, only data from 2016 to 2019 were considered in this research. This date range corresponds to the period of high growth of ridesharing platform operators in Thailand and India, and data from these years can be expected to cover the impact and new challenges for passengers, local businesses, ridesharing drivers and government.

Using this search, news articles and reports were gathered, excluding any that were unrelated or repeated. Altogether, 205 online news articles and seven reports were collected as the data for this research. Of the articles, 120 related to ridesharing in India included the 7 reports and 85 to ridesharing in Thailand. All seven reports addressed ridesharing in India; no such reports were found for Thailand. Table 1 gives an overview of the number and sources of the news articles and reports collected.

**Table 1: Overview of the data sources**

| <b>India</b>               |            | <b>Thailand</b>            |            |
|----------------------------|------------|----------------------------|------------|
| <b>Data categories</b>     | <b>No.</b> | <b>Data categories</b>     | <b>No.</b> |
| National news outlets      | 58         | National news outlets      | 49         |
| Regional news outlets      | 1          | Regional news outlets      | 1          |
| International news outlets | 18         | International news outlets | 11         |
| Reports and other sources  | 43         | Reports and other sources  | 24         |
| <b>Total</b>               | <b>120</b> | <b>Total</b>               | <b>85</b>  |

During data collection, it emerged that while there were many news articles and reports published in English in India, there were not many available for Thailand. To ensure greater balance in the data in terms of the number of items including in the analysis for each country, materials in Thai were also included. The key Thai search terms, with their English translations, can be found in Appendix A. Key quotations originally in Thai but presented in English in the findings in Chapter 4 were translated by the researcher and are marked by an asterisk \*.

### **3.4 Data analysis**

For the data analysis, this research applied thematic analysis. Thematic analysis is defined as 'a method for identifying, analysing and reporting patterns (themes) within data' (Braun & Clarke, 2006, p. 79). Thematic analysis involves six steps: becoming familiar with the data, coding, grouping codes into themes, theme reviewing, giving themes names and reporting the results (Braun & Clarke, 2006).

For this research, all news articles and reports were gathered using the same search terms. All articles were read several times and extracted into codes in Excel spreadsheets (see Appendix B for a sample of the Excel spreadsheets). The codes were then categorised into groups, with the main groups corresponding to the four interest groups, and the issues that emerged through the thematic analysis related to the interest groups as the subgroups (Bassett, 2010; Baxter & Jack, 2008). Some articles were excluded during analysis if they did not mention at least one of the four interest groups.

Memoing was used during data analysis to keep track of the data and issues that emerged while conducting the research. All of the news articles and reports provided pieces of data; memoing helps to organise these pieces into groups to generate themes. Moreover, by keeping track of the data through memoing, it was possible to identify when data saturation was reached; that is, when the articles and reports starting to repeat and no new issues or themes were emerging (Bassett, 2010).

Prior to the data analysis, the literature review identified the four interest groups that served as the main themes for this research. Under these interest-group themes, smaller sub-themes were grouped. For example, 'safety issue' is a sub-theme of the 'passenger' theme. These themes help shed light on the perspectives of the four ridesharing interest groups.

### **3.5 Ethical issues**

In every research project, ethical issues in research should be considered, especially in the process of empirical data collection (Eriksson & Kovalainen, 2015). Gray (2018) explains that ethics in research are particularly important when humans are involved, as they may be negatively affected by their participation in the research. Therefore, if the research uses primary data from human participants, informed consent must be obtained, and any set of principles to protect participants from the effects of the research may apply (Gray, 2018; Eriksson & Kovalainen, 2015). However, since this research used secondary data, no informed consent was required. Nevertheless, ethics remains an important consideration in all research. Here, ethics was considered in particular in relation to the accuracy of the representation of the data. The findings of this research may also help the different interest groups better adapt to the impacts of ridesharing, including the passengers, local businesses, ridesharing drivers and governments.

### **3.6 Conclusion**

This research will apply a comparative case study as the main research method, with the support of an interpretive research paradigm. The study is intensive in nature, aimed at studying people's responses to the issues of ridesharing in India and Thailand, and takes a deductive approach, by investigating the perspectives of the four identified interest groups of passengers, local businesses, ridesharing drivers and government. The empirical data for this research were collected from news articles and reports available online. The data were organised and coded in Excel spreadsheets. Thematic analysis was applied to generate findings that will be conveyed in the form of storytelling. In Chapter 4, the findings for the individual cases of India and Thailand are presented. These are then compared and contrasted in Section 5.1 of Chapter 5. The remainder of Chapter 5 compares the findings of this research with those of previous studies, to provide further insight for answering the research question.

# Chapter 4: Findings

Recently, the rise of ridesharing has been reported as causing social issues in developing countries. In India, these issues have been addressed by the local government; however, in Thailand, where the technology is still relatively new, the problems caused by ridesharing have sparked violent protests (Ensor, 2014; Fullerton & Jirenuwatin, 2019; India Today, 2019; Kaushal, 2018).

This chapter will present the findings of the research in two sections: one on India and one on Thailand. For each case, the ridesharing issues will be presented from the perspectives of the four interest groups; that is, passengers, local businesses, ridesharing drivers and the government. In addition, the responses of the ridesharing platform operators are discussed because their adaptation to their operational environment affects the perspectives of the four interest groups. Therefore, including discussion of the ridesharing platform operators' responses to the interest groups' concerns and demands will illustrate the dynamic interactions between them.

## 4.1 Ridesharing issues in India

Ridesharing is growing significantly in India. Uber, which expanded to India in 2014, holds 30 per cent of the ridesharing market share, while Ola, launched in India in 2010, holds more than 50 per cent of the market share. The other ridesharing operators, such as Jugnoo, ixigo and Meru, account for the remaining 20 per cent of the market share cover little of the market share (Kalra & Shah, 2016; Kaushal, 2018; Keelery, 2018). In the mid 2010s, both Uber and Ola introduced carpooling services to their Indian ridesharing platforms, to provide a cheaper transportation option for customers. A carpooling service is an app-based service that matches passengers with others nearby who are going in the same direction, so that they can share the transportation cost (Kaushal, 2018; Zakarai & Kaushal, 2017). Uber introduced its carpooling service under the product name of 'UberPool' in August 2014, while Ola launched 'OlaShare' in October 2015 (Zakarai & Kaushal, 2017).

Ridesharing in India is governed by the state governments, who individually set regulations for their state's benefit (Pike, 2018; Radhakrishnan, 2017; Singla, 2017). The most common term used in the Indian news articles and reports to refer to ridesharing platform operators was 'taxi aggregators'. The Motor Vehicles (Amendment) Bill 2017 defines a taxi aggregator as 'a digital intermediary or marketplace for a passenger to connect with a driver for the purpose of transportation' (Pike, 2018; Radhakrishnan, 2018). The news articles and reports mention some

positive effects of the rise of ridesharing in India, including the development of the technology to include the option for cash or cashless payment (Morey, 2016), the adaptation of local businesses (e.g., Meru) to the changes (Pai, 2016), and the amendment of ridesharing regulations since 2017 (Pike, 2018). The rise of ridesharing in India is expected to decrease the number of cars on the road, reducing fuel consumption, traffic congestion and air pollution, while also creating employment opportunities that will help to address the problem of increasing urban youth unemployment (Agarwal, n.d.; Baruah, 2016; Ghosh, 2019; IANS, 2019; Lidhoo, 2019; Money Control, 2017; Zee News, 2019).

#### **4.1.1 Passengers**

The thematic analysis of passengers' perspectives of ridesharing in India, as conveyed in news articles and reports, revealed four key themes: appreciation that ridesharing platforms accept cash, dissatisfaction with surge pricing, concern about the risk of being sexually harassed, and concern about other safety issues related to carpooling services.

##### *Option for cash payment*

The introduction of ridesharing in developing countries has raised questions about how the platforms can adapt to the lack of available infrastructure. In developed countries, ridesharing platforms require passengers to pay online using a credit card. However, while this is convenient for commuters in developed countries, most people in India do not have access to credit facilities, and some may not even have a bank account. In response, the ridesharing platform operators in India have developed their platforms to enable passengers to pay either by cash or online using Paytm, a credit card or Ola wallet, with the platform able to trace the cash drivers receive from passengers (Bikil, 2016; Karnik, 2017; Morey, 2016; Paul, 2018).

##### *Surge pricing*

Several reports and news articles reported on passengers urging ridesharing operators to reconsider their surge-pricing strategy, which is used to balance demand and supply during peak hours. This works by increasing the fare when passengers request a ride from places where there is high demand (Sukumar & Saran, 2016). According to Uber, their 'BOOST' surge-pricing program helps to increase supply during periods of high demand by attracting drivers with the potential for extra earnings, to ensure sufficient services are available (Sukumar & Saran, 2016; Venkat & Kj, 2017). However, several reports revealed that surge pricing can more than double the fare compared to non-surge prices, which has surprised many passengers, who expect ridesharing to be a

cheaper transportation option (Goitom, 2016). Several news articles reported passengers' belief that surge pricing was 'unfair', and that it exploited the lack of legislation on the pricing of ridesharing (Kuar, 2018). Overall, passengers were dissatisfied with the surge-pricing strategy, with some passengers reportedly refusing to use ridesharing services and instead returning to their private vehicles, public transportation or auto-rickshaws (Akshatha, 2016).

### *Safety concerns*

Several news articles and reports revealed that passengers were hesitant to use ridesharing services due to concerns for their safety. However, it was also pointed out that the feedback provided by some passengers may not be reliable because some of them may use this mechanism to get free rides from the platforms (Sengupta, 2016). In addition, much of the discussion of the safety in the news articles referred to one particular incident regarding ridesharing stemmed from an incident in 2014 in which an Uber driver raped a female passenger in New Delhi (Koebler, 2014). Even though Uber tracked down the driver, and the driver's profile and ratings are showed while booking, Uber could not completely recover the trust of female passengers (Sengupta, 2016). This reflects the fact that, as the data in this study showed, it is overwhelmingly women who are victims of sexual harassment (Sengupta, 2016). This case caused ridesharing platform operators to be banned in some parts of India pending a review of the safety of using ridesharing services, including considerations of the drivers' background checks and the driver and company's permit to operate the similar service as taxi service (Akshatha, 2016; Koebler, 2014). In addition, Uber's safety procedures of ridesharing service to protect customers were reviewed, including customer service training, policies to protect customers when drivers refused service, feedback and rating systems to evaluate drivers' performance, and fare correction to protect against drivers imposing additional charges (Priyedarshi, 2016). However, no systems or procedures to guard passengers against danger were implemented by Uber in response to the 2014 incident (Akshatha, 2016).

### *Problems with carpooling*

The news articles showed a lack of satisfaction on the part of passengers with the carpooling services launched by the ridesharing platforms in 2014. Carpooling services, such as BlaBlaCar, UberCommute and OlaShare, allow ridesharing drivers to match with multiple passengers, who are expected to be travelling to the same destination (Baruah, 2016; Bokil, 2016; Johari, 2016). However, the lack of regulation governing carpooling has recently led carpooling drivers to exploit the service by

picking up and dropping off multiple times during the trip, increasing the duration of travel and leaving passengers dissatisfied. As one passenger wrote to Uber:

Dear Uber, looks like you forgot your management 101. You incentivise the cab driver to take pool (because you pay incentive based on a number of trips), but you disincentivise the passenger to take the pool by making crappy matches which double their commute time. How the hell do you expect it to work? (Akshatha, 2016)

The safety of carpooling services is also of concern to passengers. Since carpooling matches more than one passenger, a female passenger may be placed in a car with a male stranger, increasing her risk of being abused while riding. Indeed, some female passengers have reported to their local police that they experienced sexual assault by a fellow passenger while using a carpooling service (Nigam, 2019).

#### **4.1.2 Local businesses**

The introduction of ridesharing in India has disrupted local businesses, as ridesharing offers a similar transportation service to taxis and other public transportation. Their exemption from regulation in some states gives ridesharing platform operators an unfair competitive advantage over local taxi services. They have been able to offer lower prices and capitalise on passengers' dissatisfaction with local taxi services and other forms of public transportation due to the long waiting times and lack of both driver professionalism and vehicle cleanliness associated with these services (Auto Tech Review Bureau, 2019; Joshi, 2016; Krishna, 2016; Pike, 2018).

This has encouraged local transportation services to adapt to the changes. Some car showrooms change their business strategies to include those who would like to participate in ridesharing service as the drivers by providing loans (Kazmin & Ram, 2017). In addition, some local taxi companies adopt ridesharing technology into their services, to access more passengers and survive by adapting to the current trend (Chakraborty, 2016; Hashmi, 2016). For example, Meru, an Indian radio taxi operator, legally permitted to operate a taxi service, had to change its system of operation to be more like a ridesharing platform, to attract customers (Pai, 2016). However, many taxi companies are unlikely to survive the price war resulting from the competition between ridesharing platforms, which has depressed transportation service fares (Chakraborty, 2016). These local taxi operators face higher overheads, including their taxi licence, fuel, and the costs of vehicle ownership and maintenance (Pike, 2018). Further, prices have been driven even lower with the introduction of rideshare carpooling services (Bailay & Arora, 2018). Therefore, local transportation businesses have called for the government to stop unfair competition and regulate fares (Hashmi, 2016).

### 4.1.3 Ridesharing drivers

The findings related to ridesharing drivers include that while ridesharing provides employment opportunities, being a ridesharing driver pays poorly and comes with no employment benefits. This issue has caused some strikes since 2017.

#### *Low incomes*

The operation of ridesharing exploits ridesharing drivers, who act as the suppliers to represent the brand and serve the passengers. Ridesharing provides job opportunities and extra income (Agarwal, n.d.), which is especially important in cities where the unemployment rate is high (Salve & Paliath, 2019). When ridesharing was introduced, ridesharing platform operators offered drivers incentives to attract more drivers to the platforms (Jha, 2019). For example, some ridesharing platform operators guaranteed drivers Rs150,000 per month; a rate of pay higher than that offered by some permanent jobs (Agarwal, n.d.; Kazmin & Ram, 2017). As a result, some people resigned from their jobs to become ridesharing drivers (Agarwal, n.d.; Jha, 2019).

However, these days, ridesharing drivers earn far less compared to the introductory period. After 2015–2016, the ridesharing platform operators shifted their focus towards profitability and saving costs, directly affecting drivers' incomes (Jha, 2019; Variyar & Sachdev, 2019). By 2017, Uber and Ola raised their commission charged to drivers to 20 per cent and reduced their budget to provide incentives to new and existing drivers by 40 per cent (Ghosh, 2019; Mukherjee, 2017). In addition, the cost of fuel and vehicle maintenance is increasing, which drivers now need to manage on a lower income (Kazmin & Ram, 2017; People Dispatch, 2019; Reuters, 2018; Salve & Paliath, 2019). It is also apparent from the data that many ridesharing drivers took out bank loans to buy vehicles that would meet the requirements of the ridesharing platform operators (Kazmin & Ram, 2017; Salve & Paliath, 2019; Venkat & Kj, 2017). Falling wages have placed pressure on drivers to work longer hours to survive, and many cannot repay their debt (Jalan, 2019). One driver gave his case as an example:

I save around INR 10,000 [approx. NZD 216] a month after making ten trips to 15 trips a day, driving about 12 hours. I pay INR 28,000 [approx. NZD 605] every year as car insurance premium and INR 18,000 [approx. NZD 389] a month as car loan repayment. Fuel costs INR 800 daily. (Salve & Paliath, 2019)<sup>1</sup>

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<sup>1</sup> Note: the local currency was converted into NZD at the rate of INR 1 = NZD 0.0216 on 07 June 2019, as per the quote in Salve & Paliath, 2019. The currency exchange rate was retrieved from <https://www.xe.com/currencytables/?from=INR&date=2019-06-07>

### *Lack of employment benefits*

Ridesharing drivers also do not receive the employee benefits mandated by local labour laws for all employees. This is because ridesharing platform operators consider their drivers to be 'entrepreneurs' or 'partners' rather than employees (Jalan, 2019; Singla, 2017). This widens the relationship distance between drivers and the company they contract through, such that the ridesharing platform operators do not care about their drivers (Koebler, 2014). This can be seen from the poor job security and lack of health and accident insurance offered by the ridesharing platform operators (People Dispatch, 2019; Salve & Paliath, 2019). Under these conditions, drivers have to work to get paid. If they do not work, they are not paid, even if they are sick. Moreover, if anything happens to a driver during a ride or if a driver causes an accident, the platform operators cannot be held responsible for it (Koebler, 2014; Policy Bazaar, 2019). In one case, Uber claimed to provide free insurance for their drivers (Fingas, 2017; Jalan, 2019); however, this only covered when a passenger was actually in the car, not when the driver was on the way to or from a pick up or drop off (Policy Bazaar, 2019). The lack of consideration shown by the ridesharing platform operators for their drivers could increase the vulnerability to labour generally if this kind of treatment is allowed to continue (Salve & Paliath, 2019). A driver reported that:

If I stay at home, I won't be able to earn anything. I have to take a break after each trip because it hurts. (Salve & Paliath, 2019)

### *Industrial action*

Due to the pressure on ridesharing drivers from low incomes and a lack of employment benefits, many have come out on strike since 2017. The 2017 strike was triggered by the reduction of the incentives that attracted ridesharing drivers to the platforms in the first place, for example the elimination of a bonus which was promised to drivers joining the platform and to drivers reaching a targeted number of rides (Mukherjee, 2017). The drivers felt trapped by the companies who promised them more income then broke that promise (Kazmin & Ram, 2017; Naishadham, 2017; Venkat & Kj, 2017). As part of this strike, drivers also demanded that they have to pay a lower commission, to raise drivers' profit margins (Naishadham, 2017). This strike was not successful, and the drivers gathered again to protest in 2018. This time they demanded an increase in the base fare from Rs8 to Rs12, because of their increasing operating costs (e.g., rising fuel and maintenance costs; Press Trust of India, 2018; Salve & Paliath, 2019). Again, this strike was not effective, due principally to the lack of unionisation among the drivers (Salve & Paliath, 2019). In 2019, the drivers went on strike again, with their demands including increased wages, since the drivers could not repay their bank

loans; medical and accident insurance; that they be granted city taxi permits; and that the commission be lowered from 45 per cent to 10 per cent (Jalan, 2019; People Dispatch, 2019; Venkat & Kj, 2017). Each strike causes the ridesharing platform operators to lose potential income from the disruption of the service (Fingas, 2017; Naishadham, 2017).

#### **4.1.4 Government responses**

The impact of the rise of ridesharing on the above-discussed three interest groups caused the government to review and improve their transportation-related regulations and policies. To address passengers' concerns, the government received recommendations from various legal research institutions, such as PRS Legislative Research, to have standard testing on the operation of the platform, review surge pricing, and legalise ridesharing to allow monitoring of the operators' performance (Mishra, 2016). Regarding the concerns of local businesses and the ridesharing drivers, the government has encouraged ridesharing drivers to operate part-time rather than full-time. The data analysis revealed four themes relating to the government response to ridesharing: improving transport regulations, addressing surge pricing, responding to safety issues, and seeking clarification on carpooling services.

##### *Ridesharing regulation*

To regulate ridesharing, the government is reviewing and improving its policies. The *Motor Vehicle Act 1998* covered third-party insurance, the management of taxi aggregators and road safety, but did not address ridesharing issues (Pike, 2018). Therefore, transportation policies were reviewed, and ridesharing was added in the Motor Vehicle (Amendment) Bills of 2016 and 2017 (Pike, 2018; Radhakrishnan, 2017), with the 2017 Bill placing particular emphasis on ridesharing. Some standard regulations common to every state also exist. PRS Legislative Research, a non-profit legal research organisation in India, recommended that the ridesharing platform operators be validated by the Standardisation Testing and Quality Certification Directorate or any other agency authorised by the Ministry of Electronics and Information Technology, to check the pricing calculation, algorithm and security systems, including the SOS button system and firewall for personal data security (Damle, 2016; Mishra, 2016; Pike, 2018).

##### *Regulation of surge pricing*

The government has banned the surge-pricing strategy. Several reports revealed that in 2016, the Karnataka government was the first to prohibit surge pricing and urge ridesharing platform operators to collect fares not exceeding the rate prescribed by the

government (Goitom, 2016; Pani, 2018). The Delhi government shortly followed suit. However, initially, the ceiling price of how much the taxi aggregators could charge was left unclear (Regidi, 2017; Sukumar & Saran, 2016). Therefore, various laws and regulations were drafted. A report by the Organisation for Economic Co-operation and Development revealed that in 2016 surge pricing was permitted to be three times higher than the regular fare during the day and four times higher between midnight and 5 am (Pike, 2018; Prabhakaran, 2016). The *Motor Vehicle Act 2019* subsequently specified that surge pricing could not exceed more than double normal fare, and that a driver could have no more than five rides per day charged at surge price (Ghosh, 2019).

### *Safety protections*

In response to the safety issues regarding rideshare carpooling services, the government has sought to improve regulation to protect passengers (Joshi, 2016). From the passengers' perspective, the risk of victimisation stems from the lack of regulation and monitoring by the transportation department (Nigam, 2019; Pike, 2018); indeed, this has been a concern for the government since the introduction of ridesharing in India. Several reports revealed that in 2015, governments across India hesitated to legalise ridesharing activities due to safety concerns. This is exemplified by Uber's proposal for licences during 2015, in the wake of the sexual harassment incident of 2014 (Goitom, 2016; Koebler, 2014). Some state governments (e.g., Delhi and Karnataka) opted to ban ridesharing initially, to allow time to consider the benefits of ride sharing (Goitom, 2016; Pani, 2018; Sen, 2017). As one Delhi transport ministry official commented:

If an unforeseen incident happens during a shared ride, all fingers will be pointed at the government. (Sen, 2017)

In addition, several reports reveal that the regulations regarding ridesharing were finalised in the form of the Amendment of Motor Vehicle Bill 2017 (Pike, 2018; Radhakrishnan, 2017), and were subsequently enforced across India. This Bill requires ridesharing platform operators to include SOS buttons on their platforms, together with a strong GPS system, to allow passengers to be assisted promptly when needed (Pike, 2018). However, the government still has to work on how to regulate the SOS system to ensure its effectiveness in preventing risk to passengers.

### *Regulation of carpooling*

The lack of regulation around carpooling created space for questions to arise regarding whether ridesharing drivers should be allowed to pick up more than one group of

passengers during one trip. Carpooling helps the driver to save fuel but increases the risk of harassment by fellow passengers, due to travelling with strangers. According to the *Motor Vehicle Act 2017*, a carpooling driver can only pick up one passenger or group of passengers at a time; they cannot pick up and drop off other passengers during the ride (Chakraborty & Poovanna, 2017; Regidi, 2017; Sen, 2017; Sundaram, 2017). However, some drivers broke this rule, causing many states to ban carpooling due to safety concerns. Those states that have not banned carpooling have specific regulations on carpooling. The Karnataka government introduced the *Motor Vehicles Act 2017* to permit carpooling services (Regidi, 2017), but later, in 2019, decided to ban carpooling (Jaswal, 2019). Chennai, the South India States and Odisha have considered ridesharing and carpooling illegal since 2017 (Sundaram, 2017).

#### *Protection of local businesses and ridesharing drivers*

To address the issues regarding local business disruption and the poor working conditions of ridesharing drivers, the government has sought to improve the relevant laws and regulations. Before finalising the laws and regulations, some state governments (e.g., Delhi) prohibited the operation of ridesharing platforms in their states (Mukherjee, 2017). Recently, the *Motor Vehicle Act 2019*, enforced by the national government, has capped commissions at 10 per cent and stipulated that ridesharing platform operators must provide vehicle insurance (Ghosh, 2019). In 2017, the World Economic Forum has revealed that the Indian government is planning to enter the ridesharing market by developing a state ridesharing mobile application, open to participation by all drivers. The main aims of this ridesharing application are to assess the impact of ridesharing in India to inform the further improvement of regulation, and to create employment opportunities through the inclusion of both taxi and auto-rickshaw services (Bhattacharya & Balachandran, 2017).

The government is also still considering whether ridesharing activities in India should follow the US model, in which limits are placed on the amount of income a driver can earn from ridesharing, or the Singapore model, in which the number of rides a driver can provide is capped (Bailay & Arora, 2018). In 2019, the national government proposed new guidelines outlining a 'no-profit-no-loss' model, in which drivers should consider ridesharing a part-time job only, with the service to solely be offered through mobile applications (Mahadevan, 2019; Zee News, 2019).

#### **4.1.5 Responses by ridesharing platform operators**

The period 2016 to 2019 was marked by the rise of ridesharing in India, with various platform operators increased their presence. Some local businesses adapted, in the

face of business disruption, to take some of the ridesharing market share. For example, Meru Cabs, originally a taxi company, changed its business strategy to focus on ridesharing, developing its own application (Singh, 2016). As Meru's CEO explained:

Even if we have 25 per cent share of that market, we are talking about \$1.5 billion business for us. (Singh, 2016)

Another Indian company, Getmi, allows passengers to access a bike ridesharing service through a mobile application (Express News Service, 2016). However, competition from the giant ridesharing platform operators in India, Uber and Ola, make it difficult for other businesses to gain a foothold in the ridesharing industry. Uber and Ola have expanded their services to various cities, including Kolkata, Mumbai and Hyderabad, and launched new services, including the carpooling services UberPool and OlaShare (Joshi, 2016; India CSR, 2016; Press Trust of India, 2016). In addition, they have developed their platforms to include other modes of transportation. For example, in 2018, Uber launched their 'AUTO' feature, to include auto-rickshaw services among the ridesharing options (Paul, 2018). The competition has sometimes been dramatic, ending up in court. For example, Ola was accused of making fake Uber bookings, which upset Uber's systems and affected drivers (Reuters, 2016).

#### *Adaptation to the developing country context*

Against this backdrop of competition, the ridesharing platform technology was being developed to adapt to the Indian context; in particular, to allow passengers to pay by cash or card. Cash payments were first introduced by Ola in 2011, followed by Uber in 2015 (Chadha, 2017). In addition, in 2017, Ola partnered with Softbank, is planning to launch OlaPlay multimedia entertainment in their vehicles in India. This will allow passengers to watch movies, listen to music and use 4G internet while travelling in Ola vehicle (Roney, 2017). Ola believes that the new entertainment technology will increase its competitive advantage in the ridesharing market.

#### *Safety protections*

Concerning the safety of female passengers, ridesharing platform operators have responded by improving their customer service systems. For example, according to data from 2016, Uber's call centre was not available at first in India (Priyadarshi, 2016; Vashishth, 2016). By 2019, the call centre had become available (Nigam, 2019); however, the data analysis did not reveal the exact date when Uber launched its call centre in India. Ridesharing platform operators have also developed a panic or SOS button, to be included in the platform for passengers to send alerts to a contact and to

call for assistance from the company's safety team, which is available 24 hours a day, seven days a week (Karnik, 2017; Navpa, 2018; Nigam, 2019; Priyedarshi, 2016). However, the SOS system does not function very well (Nigam, 2019). The data showed that female passengers continue to experience sexual harassment and assault when using ridesharing and carpooling services, often being dropped off before arriving to the destination, or forced to get out of the car to avoid sexual assaults (India Today, 2019; Nigam, 2019). In one article, a police officer said:

Most of the complaints that we received were to do with safety. Though an emergency button was in place, in many instances passengers were unable to report trouble from fellow passengers, often drunk, and had to rely on the driver for help. (Sundaram, 2017)

Another example, from India Today (2019), demonstrates the problem with the operation of Uber's panic button through the experience of a female passenger. Upon receiving notification of the incident from the passenger, the Uber call centre operator first contacted the driver, rather than going straight to the passenger. This allowed the driver to provide an excuse for the incident, suggesting that despite their claims to the contrary, the ridesharing platform operators consider passenger safety a low priority.

#### *Response to industrial action*

Ridesharing operators responded to the various strikes by apologising to their customers. For example, Uber responded to their customers during the 2017 strike in Bangalore by saying:

We're sorry that our service has been disrupted in Bangalore. We're aware of isolated reports of threats and intimidation from a small group of people. We again call on the authorities to put an end of this illegal behaviour. We are committed to ensuring that drivers who wish to work are able to do so, and riders can get from A to B conveniently, reliably and safely. (Naishadham, 2017)

However, the data did not reveal the responses of Uber and Ola to the striking ridesharing drivers' demands. That is, it was not clear whether these platform operators would reduce their commission, provide insurance and increase based fare, or whether they had another solution.

## **4.2 Ridesharing issues in Thailand**

Ridesharing in Thailand is growing rapidly. Grab's service covers most of the local market share, with the remainder split between other local ridesharing platforms, including GoBike (a motorbike taxi service), All Thai Taxi (which is available for iOS only) and Easy Taxi (Wotton, 2018). Grab introduced their online taxi booking

application in Thailand in 2013, predating the arrival of Uber in 2014 (Ackaradejruangsri, 2015). The company planned to expand its service in Bangkok to supply more than 500,000 passengers who use taxis as their daily transportation (Ackaradejruangsri, 2015; Archarworarit, 2015). Due to the strong growth of Grab, Uber decided to sell its operation in Southeast Asia, including in Thailand, to Grab in 2018, and turned its focus to its main market share in Europe and the US (Keeton-Olsen, 2018). This enabled Grab to exploit the technology and network of Uber, which had already expanded its service to five other megacities: Phuket, Khonkaen, Chiangmai, Chiangrai and Pattaya (Tanchalee, 2018).

Ridesharing platform operators have been growing significantly in developing countries, especially in the cities, where people need to travel to work. In Thailand, the rise of ridesharing fills a gap in supply, whereby passengers need transportation services to places inaccessible by public transportation, or where existing public transport is not able to keep up with demand (Pineapple News Agency, 2018). However, several of the data sources for Thailand revealed that some groups are not happy about the rise of ridesharing, especially local taxi businesses. Conflicts have arisen between local taxi drivers and ridesharing drivers, who steal the taxi drivers' passengers and the income to be made from them, as well as between local taxi drivers and the government, over allowing this to happen.

#### **4.2.1 Passengers**

Ridesharing in Thailand fills an important gap in supply. Passengers appreciate the convenience of hailing these services through their mobile applications, and the reduced waiting time (Bangkok BIZ News, 2017; Thammavanit, Nikhomboriruk, Suchalitkoun & Saeravong, 2018; The Nation, 2019; TNN Thailand, 2019). A ridesharing passenger in Bangkok told the Bangkok Post that:

Grab provides enough promotions for my liking, and even if sometimes they don't, I don't mind paying the full price. I prefer the convenience and what's the quickest, and easiest. (Reuter, 2018)

The news articles and reports on passenger's perspectives in Thailand revealed two themes: convenience and quality of service and safety systems.

##### *Convenience and quality of service*

The ridesharing services in Thailand fulfil passengers' needs. Ridesharing drivers rarely refuse passengers, and the price is calculated according to an algorithm that balances demand and supply (Thammavanit et al., 2018; TNN Thailand, 2019; Vongxaiyakoun, 2017). The estimated price is shown on the screen at the time of

booking, and payment can be made either online or cash. This is convenient for all passengers, and for drivers, especially for those who do not have change (Thammavanit et al., 2018; Vongxaiyakoun, 2017). Moreover, dissatisfaction with the poor service quality of the local taxis pushes more passengers to use ridesharing services rather than taxis (MGR Online, 2019; TNN Thailand, 2019). Passengers' main complaints regarding the local taxis include their refusal to pick up passengers at rush hour (Biggs, 2019; BLT Bangkok, 2018; Fav Forward, 2017; Hongtong, 2019), meter tampering, poor manners towards passengers, and poor driving behaviour (Biggs, 2019; BLT Bangkok, 2018; Phuket News, 2019). Even though ridesharing services are slightly more expensive on average compared to the local taxis, the data showed that passengers prefer to pay more because they are tired of the poor service quality of the local taxis (BLT Bangkok, 2018; MGR Online, 2019).

The convenience offered by ridesharing, together with passengers' satisfaction with the well-designed platforms, means that passengers may overlook unexpected incidents. Thairath (2019) recently reported a case in which a Grab driver cheated a passenger on their fare: the driver did not press 'arrive at destination', but let the platform continue running, adding transport-related fees (i.e., an entrance fee and express highway fee; Thairath, 2019). Grab refunded the excess fare and used this as a case study for further development of the platform. They also warned passengers to check their fare before leaving their drivers (Thairath, 2019).

### *Safety systems*

In Thailand, passengers feel safer using ridesharing than they do the local taxis. Sexual harassment and other bad behaviour when ridesharing in Thailand rarely happen because of the strong safety systems within the platforms. The 'Travel' and 'Help' features enable passengers to complain immediately via the mobile application; a team is available 24 hours a day, seven days a week, to evaluate the situation and support passengers; and the feedback and rating system is used to monitor drivers' performance (Bangkok BIZ News, 2017; MGR Online, 2019; Pongsavath, 2017; Vongxaiyakoun, 2017). These safety systems make passengers more confident in using the service and give them power to protect themselves when driving with strangers. The systems are designed so that problematic drivers are eliminated from the platform, based on the reviews and ratings they receive (MGR Online, 2019; Pongsavath, 2017; Vongxaiyakoun, 2017); and in the case of something bad happening to a passenger, the personal information of the driver can be tracked via the mobile application (Amarin TV, 2019; Daily News, 2017; TNN Thailand, 2019). Nevertheless, some crimes by ridesharing drivers have occurred. In 2017, a Grab

driver was arrested after sexually harassing his passenger while driving (Daily News, 2017). In 2019, a drunk female passenger was raped by a Grab driver after falling unconscious in his car (Amarin TV, 2019). However, the the drivers were tracked, facilitating Thai authorities to arrest them.

#### **4.2.2 Local businesses**

Several of the data sources discussed ridesharing from the point of view of local businesses, especially local car and motorbike taxis in Bangkok, and traditional transportation modes like the red truck in Chiangmai. The data analysis revealed four key themes: the difference between local taxis and ridesharing drivers in terms of expenditure and legal status, ridesharing legalisation, and the anger of local taxi drivers.

##### *Rising costs, falling profits*

Local businesses, especially local taxi services, are not happy about the rise of ridesharing, which has seen their profits decrease by more than 50 per cent (Hongtong, 2019). Local taxi drivers have seen their passengers shift to ridesharing and have become angry since learning that they are not operating on a level playing field with ridesharing drivers, resulting in lost income. For example, the ridesharing services are not subject to the same expenditures as the local taxi companies, because they do not consider the Thai laws and regulations that govern taxis to be applicable to them, as technology services providing on-demand matches between passengers and ridesharing drivers (BLT Bangkok, 2018; Jiravuttipong & O-Charoen, 2018). The ridesharing services operate using drivers' personal vehicles and personal driving licences, unencumbered by the need to pay tax and other fees, and not limited by the fare ceilings imposed on the local taxi services by the Thai government (BLT Bangkok, 2018; Kamonsuwan, 2019; Thammavanit et al., 2018). Meanwhile, local taxi services have to manage the significant expenditure required by the government, including licence renewal for both drivers and vehicles, vehicle maintenance, rental fees, insurance and tax (Hongtong, 2019; MGR Online, 2019; Thai Reform, 2019). Moreover, they cannot increase their fares to compensate for these expenses because the government has set a fare ceiling to protect passengers. Therefore, taxi drivers' profit margin is small (Thammavanit et al., 2018).

The local taxis' costs were further increased when the 'Taxi OK' mobile application was introduced in 2018 (Daily News, 2018). All taxis were required by the government to install the 'Taxi OK' application, which included a GPS system. The application, which operated similarly to the ridesharing platforms, aimed to improve the quality of the taxi

services in response to complaints from passengers (Daily News, 2018; Forth Track, n.d.; Leesa-nguansuk, 2017; Promotion, 2018). However, the installation fee was burdensome for taxi drivers. According to the Public Taxi Motorists Association:

A Grab driver's costs are about THB 8,000 [approx. NZD 417], but a taxi driver is over THB 25,000 [approx. NZD 1305] per year. Aside from that, taxi drivers have to pay THB 20,000 [approx. NZD 1044] for the Taxi OK application. (Hongtong, 2019)<sup>2</sup>

After all of this, several news articles reported that the 'Taxi OK' application did not even work (Daily News, 2019; Hongtong, 2019).

### *Legal status*

After the failure of the 'Taxi OK' application, the Thai government decided to review the transportation laws and regulations. Regulations concerning ridesharing in Thailand are unclear: under Thai laws and regulations, ridesharing services are unregulated. However, the local authorities and local businesses consider ridesharing illegal, yet the ridesharing services continue to operate (Kom Chad Luek, 2019). Four issues emerged concerning the legality of the ridesharing services: vehicle registration, driving licences, pricing and payment of tax.

Currently, ridesharing services in Thailand use vehicles that are registered for personal use. These 'white licence plate' vehicles are subject to less rigorous registration and maintenance requirements, as well as an annual check-up fee (Bangkok BIZ News, 2018; BLT Bangkok, 2018; Kamonsuwan, 2019; Salaytoo, 2018). However, the *Motor Vehicle Act 1979* requires any vehicle used to provide a transportation service, such as a local taxi, to be registered as public transport (i.e., to have a yellow licence plate; DLT, 2017, 2019; Jiravuttipong & O-Charoen, 2018; Salaytoo, 2018). In addition, public transport drivers are required to have a public transport driving licence, to be renewed regularly, and to attend training (DLT, 2017, 2019; Jiravuttipong & O-Charoen, 2018; Salaytoo, 2018).

The unclear regulations also allow ridesharing services to use dynamic pricing strategies (i.e., surge pricing) when there is high demand and low supply. This ensures the availability of services by giving ridesharing platform operators the chance to flexibly set their own prices, (Jiravuttipong & O-Charoen, 2018; Leesa-nguansuk, 2017; Thai Reform, 2019). Conversely, the fares of registered public transport services are

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<sup>2</sup> Note: the local currency was converted into NZD at the rate of THB 1 = NZD 0.0522 on 27 October 2019, as per the quote in Hongtong, 2019. The currency exchange rate was retrieved from <https://www.xe.com/currencytables/?from=THB&date=2019-10-27>

regulated by the government, who set a price ceiling (Jiravuttipong & O-Charoen, 2018; Thammavanit et al., 2018). Moreover, local taxis are registered with the government and pay tax regularly, whereas ridesharing drivers can avoid paying tax because payment can be made online, or by card or cash, and cannot always be tracked by the government (Kapook, 2017).

### *Legalisation and regulation*

To address the current legal 'grey area' that is ridesharing, the government has plans to legalise ridesharing under the name 'Grab legalisation'. The purpose of Grab legalisation is to enable ridesharing to operate legally under a new set of laws and regulations. These laws and regulations are currently under review, with enforcement promised to be in March 2020 (MGR Online, 2019; Thairath, 2018, 2019; Thai PBS, 2019). The government has disclosed some of the provisions, including:

1. Ridesharing platforms can employ drivers with personally registered vehicles without requiring them to get a yellow licence plate (BLT Bangkok, 2018).
2. Ridesharing drivers must have a public transport driving licence (BLT Bangkok, 2018).
3. Vehicles used for ridesharing must have no more than seven seats and must not be older than nine years (BLT Bangkok, 2018).
4. Vehicles used for ridesharing must have stickers issued by the Department of Land Transport displayed on their front and back, to show the vehicle's purpose (BLT Bangkok, 2018).
5. Ridesharing platform operators must register as Thai legal entities to enable payment of tax (DLT, 2019).

### *Taxi drivers' anger*

Several news articles showed that local taxi drivers are angry about the prospect of ridesharing's legalisation. The data revealed that local taxis drivers consider the government to have sided with the ridesharing services rather than with them. The local taxis register with the government and follow the laws and regulations they set (Kom Chad Luek, 2019; MGR Online, 2019; Thairath, 2019). However, while the local taxi drivers are faced with a loss of income due to business disruption and perceived unfair competition, the government appears to be directing its efforts to reducing the barriers for ridesharing and supporting its operation (Khaosod, 2019; Kom Chad Luek, 2019). This caused 50 local taxi drivers to strike in front of the Bhumjaithai Party office,

which has been supporting the legalisation of ridesharing. The Taxi Association's position is that:

The policy to support ridesharing directly impacts the taxi's businesses that have been operating legally, so that they need remedies\* (Khaosod, 2019)

Various comments were found in the data from local taxi drivers protesting against the government. In their view, the government had decided not to use the existing regulations to punish violations by the ridesharing services, but rather sought to change the regulations to allow foreign corporations to steal revenue from local businesses (Kapook, 2017; Kom Chad Luek, 2019; Thepbamrung, 2019). The head of the Motorbike Taxi Association commented that:

There has been no one able to address this issue. However, the new government, who wasn't officially appointed, announced the new policies to support the foreign investors and caused conflicts among Thai people rather than using the existing regulations to punish those who misbehaved\* (Kom Chad Luek, 2019)

Since March 2019, local taxi drivers' protests have focused less on the ridesharing technology and Grab, than on ridesharing regulations. The local taxi drivers have said that they do not want to ban Grab (Kamonsuwan, 2019). Instead, if Grab is legalised, they want the ridesharing platform operator to have to compete fairly by following the same laws and regulations, including in terms of licencing, government-required expenditure and the fare ceiling (Bangkok BIZ News, 2018; Kamonsuwan, 2019; MGR Online, 2019; Thai Post, 2019; Transport Journal, 2019). Local taxi drivers cannot accept the double standard that see ridesharing services operate using personally registered vehicles and personal driving licences (Bangkok BIZ News, 2018; BLT Bangkok, 2018; Bottom Line, 2019; Salaytoo, 2018). The difference in required expenditure between the ridesharing drivers and local taxi drivers is significant, with the local taxi drivers having much higher overheads than their ridesharing counterparts (Hongtong, 2019; MGR Online, 2019). Moreover, unlike ridesharing drivers, who can set their fare as they see fit, local taxi drivers cannot charge their customers higher fares to compensate for their greater financial outlays, because a fare ceiling has been set by the government (Transport Journal, 2019).

Protestors have also requested that the government separate the ridesharing and local taxi business markets. This would mean that ridesharing services could only operate via mobile application; ridesharing drivers could not be hailed by passengers on the street or wait at taxi stands (Transport Journal, 2019). Three other requests of the government made by protestors are 1) that drivers receive compensation for the impact on their jobs of legalising ridesharing, 2) that legal action be taken against the current

ridesharing services and 3) that fares be reviewed to reflect drivers' actual costs, as they have not been increased for many years (Bottom Line, 2019; Droidsan, 2019; Phuket News, 2019).

Following discussions with the protestors in August 2019, the government promised to disclose their methods for addressing conflicts regarding ridesharing within one month; however, this did not happen (Transport Journal, 2019). Moreover, the government did not invite any Taxi Association representatives to sit on the law-drafting committee, but did offer a seat on the committee to Grab (Leesa-nguansuk, 2017; Thepbamrung, 2019; Transport Journal, 2019). This lack of transparency in the government response has fuelled tensions (Transport Journal, 2019). The protestors have threatened to take the issue to the Supreme Administrative Court by filing charges against the Minister of Transport and the Prime Minister under Criminal Law Section 157 on corruption by authorities allowing private entities to develop monopolies detrimental to society (Thai Post, 2019). At the same time, local taxi drivers have recently been striking over other issues. For example, on 7 November 2019, a strike was held at the Suvarnabhumi airport, when passengers of the airport were not allowed to carry more than one piece of luggage per person. If they had more than one, they had to call another taxi (Transport Journal, 2019). However, there were no news articles or reports mentioning how the government and concerned authorities addressed the issue.

### **4.2.3 Ridesharing drivers**

The data analysis of the articles relating to the perspectives of ridesharing drivers revealed four key themes: the pressure on ridesharing drivers due to the costs they face; the pressure on drivers from passengers, through the review and rating systems; ridesharing driver recruitment; and safety issues for ridesharing drivers, including the risk of being involved in drug trafficking, being arrested by local authorities and becoming embroiled in turf wars.

#### *Cost pressure*

The rise of ridesharing has created job opportunities for Thai people who have a vehicle and would like to use it to earn extra income. However, ridesharing drivers have to be able to manage the associated cost pressure. Ridesharing drivers have to pay a 25–30 per cent commission to use the ridesharing platform, deducted from the fares paid by passengers (MGR Online, 2019). However, the public, and especially the local taxi drivers, have not realised this cost pressure of the drivers, instead viewing them as those who have taken advantage of the rise of ridesharing. In addition, since the ridesharing platform operators consider ridesharing drivers to be 'partners', rather

than employees, drivers are responsible for all the costs related to providing the transportation service, including fuel, insurance and vehicle maintenance (MGR Online, 2019).

### *Impact of rating system*

Drivers also face pressure from passengers, who may give a low rating through the feedback system when they do not feel happy with the service (MGR Online, 2019). No tools or systems exist to check whether comments or scores reflect the driver's actual performance, so it is possible that passengers could provide inaccurate comments or scores, causing these drivers to be removed from the platform (MGR Online, 2019).

### *Driver recruitment*

To register as a ridesharing driver, it is compulsory to submit any criminal records to the company (Droidsan, 2019). According to one article, ridesharing drivers are now required to obtain their criminal records from the police. This makes them different from the local taxi drivers, who are not required to provide such documentation (Droidsan, 2019). However, another article, from the Department of Land Transport, said that ridesharing has no standard for checking drivers' criminal records before recruiting them (Forth Track, n.d.).

### *Safety*

Safety was another main concern for ridesharing drivers in Thailand. The data sources revealed that ridesharing drivers are at risk of both being involved in serious illegal activities and physical harm. In one recent incident, a driver was assigned to deliver a package of food, only to find that the package contained drugs and firearms (Thepgumpanat & Setboonsarng, 2019). The Deputy Secretary-General of the Narcotic Control Board said:

Drug dealers are increasingly using delivery services to send contraband. If an individual is found to be connected, either as a courier or receiver, they will be punishable. (Thepgumpanat & Setboonsarng, 2019)

In addition, due to the current illegal status of ridesharing, drivers are at risk of being arrested by local authorities. Police might try to hail a ridesharing driver on the street or submit fake ride requests through the application. Drivers found to be using the

incorrect driving or vehicle registration license have to pay a fine of around THB 4,000 [approx. NZD 206]<sup>3</sup> (Thepgumpanat & Setboonsarng, 2019).

The recent strike action amplified tensions between local taxi drivers and ridesharing drivers in Thailand. The result is that, when ridesharing drivers are called to pick up a passenger, for example, they are often stopped by local car and motorbike taxis (Kom Chad Luek, 2019), which may chase the ridesharing driver to distract them and reduce their performance (Salaytoo, 2018). These tensions have even developed into turf wars between taxi and ridesharing drivers, increasing the risk of serious injuries and death for the involved parties. On 20 June 2019, two motorbike drivers were shot dead because of a turf war (Fullerton & Jirenuwatin, 2019). Recently, some ridesharing drivers created a Facebook page to warn other drivers about the attacks, point out their location and suggest how to avoid the danger (Fullerton & Jirenuwatin, 2019).

#### **4.2.4 Government responses**

The articles on ridesharing from the point of view of the government revealed two key themes: the process of addressing social unrest and the hope placed in Grab legalisation.

##### *Response to social unrest*

The government's response to the issues raised by local businesses, as discussed above, and which have led to social unrest, has been to address them case by case. In each of the various strikes concerning ridesharing platform operators, the Minister of Transport brought the protestors' requests for discussion with the Department of Land and Transport as well as other concerned sectors (Thai Post, 2019). The government still hopes that Grab legalisation will provide the legal framework for ridesharing, determining the conditions under which ridesharing services and ridesharing drivers can operate (MGR Online, 2019). However, the government needs time to conduct a feasibility study to ensure the benefit of all interest groups.

##### *Grab legalisation*

Regarding the conditions faced by ridesharing drivers, the articles did not provide much information about how the government is responding to the pressures placed on ridesharing drivers by the costs of operating a ridesharing vehicle and the stress of the

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<sup>3</sup> Note: the local currency was converted into NZD at the rate of THB 1 = NZD 0.0514 on 14 September 2019, as per the quote in Thepgumpanat & Setboonsarng, 2019. The currency exchange rate was retrieved from <https://www.xe.com/currencytables/?from=THB&date=2019-09-14>

feedback system. However, the government does hope that Grab legalisation will result in ridesharing operating legally and reduce the stress on drivers that comes from the risk of being arrested. To address the conflict between the local taxi drivers and ridesharing drivers, and the turf wars arising from this, the immediate response from the government has been to assign local police to closely monitor their areas of responsibility to prevent turf wars (Fullerton & Jirenuwatin, 2019).

#### **4.2.5 Responses by ridesharing platform operators**

Ridesharing platform operators understand the current lack of regulation of ridesharing in Thailand, especially as regards the licencing of vehicles and drivers. However, due to the limited supply of taxi drivers (Pineapple News Agency, 2018; Spring News, 2018; Thairath, 2018), Grab told the media that:

The company confirms that it will comply with every regulation and collaborate with the government. However, it is necessary for the company to use the white-plate vehicles to serve their customers because the numbers of yellow-plate vehicles are not sufficient to the current demand. \*(Pineapple News Agency, 2018).

Regarding the safety of its driving partners, Grab has not been able to do much. In response to instances in which Grab drivers were reported to have become involved in drug and firearm deliveries, Grab collaborated with the authorities to develop a procedure and provide training for their drivers. The main purpose was to warn drivers against becoming involved in such activities (Thepgumpanat & Setboonsarng, 2019). In addition, Grab also warned their driving partners to avoid conflicts with local taxi drivers (Fullerton & Jirenuwatin, 2019). The company has been collaborating with the government to legalise ridesharing and hopes that Grab legalisation in March 2020 will reduce the tensions between taxi and ridesharing drivers (Leesa-nguansuk, 2017; Spring News, 2018).

# Chapter 5: Discussion

The previous chapter presented the findings from the data collected from new articles and reports on ridesharing in India and Thailand during the period 2016 to 2019. The findings were organised to show the perspectives of the four main interest groups: passengers, local businesses, ridesharing drivers and government. It was revealed how the ridesharing industry has developed and adapted to the environments of these developing countries, and the opinions, concerns and actions of the four interest groups. This chapter will compare the Indian and Thai cases in Section 5.1. Then, in Section 5.2, the findings will be compared against the literature review, and the findings of Yuana et al. (2019) in Section 5.3. In Section 5.4, a final comparison will be made between the findings and the previous research on ridesharing in developed countries. Finally, in Section 5.5, the lessons learned from this research will help to answer the research question of 'How are India and Thailand adapting to the rise of ridesharing?'

## 5.1 Comparison of ridesharing issues in India and Thailand

India and Thailand are different in terms of their demography, cultures, languages and ways of thinking. Their responses and adaptation to the rise of ridesharing can thus also be expected to be different. This section will compare the perspectives on ridesharing in India and Thailand, organised by interest group, as in the Findings chapter. First, the perspectives on ridesharing of passengers in India and Thailand will be compared, followed by local businesses and ridesharing drivers. The governments' responses to the issues raised by these interest groups is then discussed, before finishing by comparing the responses of the ridesharing platform operators in the two countries.

Passengers in India and Thailand interact with ridesharing differently depending on the services available. Passengers in India were not satisfied with the ridesharing service. In particular, they cited surge-pricing strategies as the ridesharing issue they were most unhappy about. They felt that the companies were trying to take advantage when the passengers needed the service the most. Conversely, Thai passengers understood the reason for surge pricing and were willing to pay because they did not like the local taxi services.

The safety of ridesharing services was another concern for passengers in both India and Thailand. The ridesharing platform operators in both countries were very proud of their feedback, rating and SOS systems; however, due to India having too many ridesharing drivers, the companies could not control the quality of their drivers in that

country, and thus could not ensure the quality of the service. In India in particular, the SOS systems, designed to prevent harm to and protect passengers, was not effective in protecting the safety of passengers; and the call centres, used for customer assistance, have not always provided satisfactory solutions for passengers. By contrast, Thai passengers trusted the ridesharing services in that country. The convenience of ridesharing (e.g., in terms of saving time, and easy payment) encouraged them to use ridesharing services more than the local taxis. They felt that the feedback and rating systems empowered them to ensure an excellent quality of service from their drivers. Moreover, if anything were to happen, the passengers trusted the customer assistance and GPS systems to protect them.

Another important difference between India and Thailand in terms of passengers perceptions of ridesharing concerns the introduction of carpooling. Carpooling services were introduced in India as part of the bundle of ridesharing services, to resolve the issue of unutilised seats in ridesharing vehicles. Passengers consider that carpooling is both not convenient and more dangerous for females passengers, due to the increased risk of joining a ride with a passenger that could harass or assault them. In Thailand, but contrast, this service is not available, which may explain why ridesharing services in Thailand are more popular and receive better feedback from passengers.

An unfortunate similarity between the countries is that in both India and Thailand, passengers have been subject to verbal and sexual harassment and assault while travelling in ridesharing vehicles. Indian passengers, especially females, were worried about their safety when using ridesharing services, due in part to the perceived unhelpfulness of the customer support system. In Thailand, where the passengers are confident in the customer support system, the incidences of harassment and assault suggest that while the feedback and rating systems help to improve service quality, they cannot guarantee passenger safety.

The rise of ridesharing has affected local businesses in India and Thailand. The difference can be seen in the extent to which local businesses in India and Thailand have adapted to the rise ridesharing. Indian local businesses have adapted to grow on the back of the ridesharing trend. Popular car sales showrooms changed their marketing strategy to target people planning to operate ridesharing vehicles, offering them loans. The radio taxi operator, Meru, introduced ridesharing technology to its service to attract more customers. By contrast, local businesses in Thailand, especially local taxi services, have not been able to accept the presence of ridesharing services in the market due to perceived unfair competition (e.g., in terms of regulation and required expenditure). Ridesharing services have more freedom to operate in Thailand

due to being less regulated than the local taxis. This has caused many strikes in Thailand by local transport providers, protesting against the government's failure to protect their businesses and plans to legalise ridesharing. No evidence of strikes by local businesses was found in the data for the Indian context.

From the point of view of the ridesharing drivers, whereas protests by local taxi drivers dominated the media in Thailand, in India the greater unrest came from ridesharing drivers. Since 2017, they have been protesting against Uber, Ola and the government, primarily over the reduction in the incentives being offered by the ridesharing platform operators. Initially, ridesharing platform operators used incentives to attract drivers to join the platforms. However, subsequent declines in the profits being made by the platform operators drove them to cut these incentives and increase the commission required to be paid to them by ridesharing drivers. This made the drivers think that the companies had trapped them. The companies also did not provide insurance for their drivers or any employment benefits, because they considered the drivers to be their partners, not their employees. In Thailand, ridesharing drivers face the same problem of cost pressure including the 30 per cent commission. However, they have not disputed this issue so far.

In India, the tension between the ridesharing drivers and the government increased due to the drivers' struggles with the pressure of working for insufficient income. Ridesharing drivers have come out on strike, asking the companies to reduce the commission fee, increase the fares and provide them with insurance. However, with no movement from the companies, the strikers turned to the government, requesting them to help force the companies to meet the drivers' demands by addressing their requests through the Motor Vehicle Bill. In Thailand, the situation is quite different. Ridesharing drivers are currently considered to be operating illegally and are constantly at risk of being arrested or becoming victims of the turf wars that have arisen from the rage of the local taxi services towards encroachment by ridesharing drivers. The government response has been to assign local authorities to keep the peace in problem areas as an immediate solution, while also working with the Department of Land Transport to legalise ridesharing in a way that benefits all interest groups.

There were also differences in approaches to ridesharing from the point of view of government. The ridesharing sector has operated longer in India than in Thailand. Therefore, India's government has done more to address the challenges posed by ridesharing, whereas Thailand is still experiencing the early stages of these challenges, including in terms of the disruption to local businesses.

India and Thailand have differed in their governments' responses to the safety concerns of passengers. In India, the data revealed that the national government has focused on macro-level legal revision, whereby they reviewed the laws and regulations regarding ridesharing to prevent risks to passenger safety. Conversely, in Thailand, the government has focused on an immediate interim solution; that is, the Thai authorities coordinate with the ridesharing platform operators to facilitate the arrest of drivers found to have harassed passengers. Thai authorities have also warned passengers to be aware of the risk at all times.

In response to the rise of ridesharing, both the Indian and Thai governments became ridesharing platform operators themselves and joined the ridesharing market, but with quite different outcomes. The Indian government hopes to learn more about the market and its impacts on passengers, to help predict future risks. In Thailand, the government developed an application to bring ridesharing technology to the local taxis services; however, this application was not implemented successfully and caused many local taxi drivers to complain.

The Indian and Thai governments used similar methods to respond to ridesharing issues. The government of India reviewed the regulations regarding ridesharing. Recommendations from the public included to regulate ridesharing drivers under the same legislation as traditional taxi operators, to place a fare cap to control surge pricing, to make ridesharing services complementary to other forms of public transportation, and to encourage ridesharing drivers to work only part-time to supplement other employment. The Thai government is taking a similar approach but cannot yet confirm the direction of the ridesharing legalisation. Currently, ridesharing laws and regulations are being considered with hope that the regulations will protect all interest groups.

The ridesharing platform operators have been growing in India and Thailand. In India, the market is split between various ridesharing platform operators, with Uber and Ola taking the most significant market share. In Thailand, Grab monopolised the market. These three ridesharing platform operators have adapted in similar ways to their developing country context, including by introducing the ability to pay by cash and other kinds of technology, such as in-car multimedia entertainment to attract more passengers to use the platforms. Grab has also been partnering with other local businesses in Thailand and collaborating with the government to facilitate the legalisation of ridesharing.

## **5.2 Comparison between the findings and the literature review**

This section will compare the findings from this study to the previous research on ridesharing outlined in Section 2.4 above. The literature review discussed the existing literature on ridesharing in general, and the differences in how ridesharing operates in developing as compared to developed countries. This body of research will be compared against the findings of this study, which analysed news articles and reports from Thailand and India to reveal the perspectives on ridesharing of passengers, local businesses and ridesharing drivers, and the responses of government and ridesharing platform operators to the issues raised by these interest groups.

Previous research on the perspective of passengers has established that the arrival of ridesharing has made life easier (Hamari et al., 2016; Harding et al., 2016; Liu & Wayne Xu, 2019). Ridesharing platform technology, which matches drivers and passengers, allows passengers to provide feedback and a rating of the service, both in terms of the ridesharing platform and the driver. This strengthens mutual trust between passengers and the platforms, without a need for face-to-face communication. This previous research aligns with the findings on Thai passengers, who appreciated the ridesharing service. They trusted the platforms to provide a better service than the local taxis, which were viewed as often refusing passengers and engaging in meter tampering and other criminal behaviours. Conversely, the findings on Indian passengers contradict the claims of previous research: they do not appreciate the ridesharing services, due primarily to safety concerns. Recent articles reported that some female passengers had fallen victim to sexual harassment and assault, and were being dropped off before reaching their destination. When this happened, the platforms' customer assistance systems could not effectively respond to assist passengers.

Regarding the feedback and rating systems, the previous research illustrated their advantages and disadvantages. Feedback and rating systems can boost trust and brand recognition, but they become unreliable if used by customers who do not care whether the service improves, or if fraudulent ratings are purchased by the ridesharing platform operators for marketing purposes. This was reflected in the findings on Indian passengers, who considered that the systems in India were not helpful. Sometimes, the feedback was from people who wanted free rides, which prevent passengers from receiving inadequate or unsafe service. By contrast, the passengers in Thailand appreciated the feedback systems, which they saw as giving them bargaining power towards drivers, to ensure they received an excellent service. However, negative experiences did still sometimes occur.

On the matter of safety-related incidents in ridesharing (e.g., dangerous driving, fare cheating and sexual harassment), the previous research argued that the ridesharing platform operators refused to take any responsibility for the incidents, due to their claims to be merely technology companies. Instead, they cast the responsibility onto drivers. However, the findings of this study show that the ridesharing platform operators in both countries are able to be held responsible for the incidents. In India, faults caused by drivers are addressed by the ridesharing platform operators, such as by refunding the trip or finding another driver for the passenger. However, passengers have not been satisfied with this response. For Thailand, none of the news articles analysed mentioned how the ridesharing platform operators were taking responsibility for their drivers, although the companies were noted to be working with authorities to track down drivers suspected of criminal activities. Regarding how these two countries should be addressing safety issues in ridesharing, the previous research offers no advice other than suggesting a review of the relevant laws and regulations.

Two points raised in the previous research but that were not mentioned in the news articles and reports analysed for this study were the discrimination of ridesharing drivers against people with a disability, and data privacy. Regarding discrimination against the disabled, the previous research highlighted the lack of capacity of ridesharing drivers to provide services for people with wheelchairs or in need of special assistance. The issue of data privacy gained prominence because of recent data leakages, causing researchers to draw attention to the fact that both passengers and drivers have to input their personal data into the ridesharing platforms, so that, among other things, the platforms can track their current location using GPS.

Previous research on the perspectives of local business has paid attention to the disruption of local businesses; in particular, noting the unfair competition between ridesharing drivers and local taxis. The research has observed that while local taxis are registered legally, have taxi permits and have mandated expenditures enforced by local laws and regulations, such as insurance and licence renewal fees, ridesharing drivers are not similarly regulated, giving them an unfair advantage in the market. However, while both India and Thailand had this problem of unfair competition, the comparison between the existing research on this issue in these countries and the findings of this study give different results.

According to the previous research for India, local businesses did not welcome the rise of ridesharing, often protesting against it, due to the impact on their market share from the platforms operators' technology which facilitate the ridesharing drivers to access to passengers, exemption from legal conditions and dynamic pricing. By contrast, this

study found that, due to the adaptation of the transport laws and regulations to accommodate ridesharing, local businesses in India chose to also adapt by adopting ridesharing technology in their businesses.

Quite the reverse is true in the comparison between the previous research on Thailand and the findings of this study. The previous literature has not mentioned the reaction of local businesses in Thailand to ridesharing, instead focusing on the legal status of vehicle and driver registration. However, local taxi drivers in Thailand are very angry about the rise of ridesharing, with a number of strikes having been held to protest the practices of ridesharing drivers and the inaction of the government. A common theme in the protests is that of nationalism, with claims that people who use ridesharing services, and the government generally, are supporting foreign companies' monopolisation of the transportation service, rather than supporting local businesses. It is interesting to note that none of the news and reports about ridesharing in India and Thailand mentioned the impact of ridesharing on taxi medallions.

Previous research on the perspectives of ridesharing drivers has described ridesharing drivers as being exploited by the ridesharing platform operators, which consider drivers to be their 'partners' (i.e., contractors) rather than employees. Contractors do not receive the employment benefits that permanent employees do, such as insurance and sick leave; they are only paid when they work. This saves the ridesharing platform operators money and reflects the low importance they place on their drivers. Further, the lack of investment by the operators in the driver-recruitment process leads some drivers to provide poor service.

The existing literature for India suggested that drivers were attracted to the platforms because of the flexible working hours and the high incentives that the operators were initially offering. This encouraged them to buy second-hand cars to be eligible to operate as ridesharing drivers. However, the findings in this study revealed that ridesharing drivers feel that they have been betrayed by the ridesharing platform operators, who subsequently increased the required commission and reduced incentives. This has increased drivers' costs and affected their ability to repay their bank loans, leading to strikes in various states in India.

The situation was different in Thailand. The literature did not mention anything about the pressures placed on drivers by their high operational costs and reliance on customer ratings. Instead, the research focus has been on the ineffectiveness of the ridesharing driver-recruitment process in Thailand, due to the ridesharing platform operators' lack of collaboration with the government as regards receiving criminal records. However, the findings of this study contradicted the research: finding that

many local taxi drivers have been rendered ineligible to join the ridesharing platforms because of their criminal records. This indicates that the recruitment processes implemented by the ridesharing platform operators are more effective than suggested in the literature. Regardless, previous research has argued that the absence of a criminal record does not guarantee a driver will not commit a crime in the future.

There were differences in approach to ridesharing from the point of view of government. The laws and regulations regarding ridesharing in India and Thailand are not clear. In India, the central government designated the state governments to govern ridesharing individually. Therefore, ridesharing operates differently in each state. As regards Thailand, previous research has discussed the country's transport laws and regulations concerning registration, whereby ridesharing drivers and platform operators must register or be deemed illegal; however, no mention has been made of the laws and regulations that are missing. The findings of this study revealed that the Thai government plans to legalise ridesharing in March 2020; it is hoped that legalisation will end the conflict between local businesses, ridesharing drivers and the government.

Previous research has discussed the adaptations made by ridesharing platform operators to better fit into the developing country context. For example, in both India and Thailand, the ridesharing services developed their platforms to meet passengers' needs, such as in terms of having the capacity to handle various payment methods, including cash, cards and online payment. The existing literature has also predicted what ridesharing companies might do in the future, such as plans to introduce self-driving vehicles. By contrast, the articles and reports analysed for this study contained no mention of this plan. They did, however, report on the local partnerships that have been pursued by the ridesharing platform operators to include other modes of transport under the ridesharing banner (i.e., auto-rickshaws in India and motorbikes in Thailand).

### **5.3 Comparison between the findings and the research of Yuana et al. (2019)**

This section will compare the findings from this study to the research of Yuana et al. (2019), who studied ridesharing in Indonesia and the Philippines. The comparison is expected to generate insights into how developing countries adapt to ridesharing.

The ridesharing research points to insufficient and ineffective public transportation as a motivating factor for passengers to use ridesharing services in developing countries. Yuana et al. (2019) summarised the recent situation of traffic in Jakarta and Manila, saying that the rapid urbanisation, inadequate public transportation system and significant growth of vehicle ownership was causing more people to spend more time

stuck in traffic. This aligned with the situation in the urban centres of India and Thailand, where the public transportation supply has not kept pace with demand. Another similarity, this time between the Filipino and Thai cases, was that passengers in both countries were often tricked by local taxi drivers on fares. The poor service quality of the local taxis, especially in Thailand, also motivated passengers to shift to using ridesharing, despite its slightly higher cost and safety issues. Thus, in developing countries, it would appear that ridesharing fulfils passengers' demands for better and sufficient transportation; a demand to which passengers consider that public transportation is struggling to respond.

There were some similarities and differences in the responses of the local businesses to the rise of ridesharing. The views of local businesses towards the rise of ridesharing are similar in Indonesia in Thailand. The local taxi companies in Indonesia and Thailand are not happy with the practices of the ridesharing services, which unfairly steal their income. As such, they have been protesting against the ridesharing platform operators and the government for their support of the ridesharing companies. Yuana et al. (2019) reported that taxi drivers in Indonesia questioned why ridesharing services did not share the same burden as they did of transport regulations, especially those related to costs and tax. The same question was asked by a striking Thai taxi drivers, who argued that the government had done the wrong thing by welcoming the ridesharing services.

Local businesses in India, however, have reacted to the rise of ridesharing differently compared to Indonesia and Thailand. Since each state in India governs ridesharing differently, some states permit ridesharing services, but some do not. Still, the Indian government amended the *Motor Vehicle Act 2017* to enable ridesharing in terms of laws and regulations. In response, passengers, local businesses and ridesharing drivers have adapted to the law. This is similar to what Yuana et al. (2019) said happened in the Philippines, where ridesharing regulations are available and governed by the LTFRB. Thus, it can be seen that in those countries where the laws and regulations related to ridesharing are under review or missing, local taxi drivers are trying hard to ban ridesharing. However, after ridesharing laws and regulations are finalised and implemented, all interest groups come to adapt to the new environment.

From the point of view of ridesharing drivers, Ridesharing drivers have responded to the rise of ridesharing differently in each country. This research found that Indian ridesharing drivers are not satisfied with the ridesharing platform operators, which they see as having trapped them with the promise of high incentives, which were subsequently withdrawn. As such, they have protested against the platform operators

and petitioned the government for higher incomes and employment benefits. Drivers work under the same conditions in Thailand but have not come out on strike. This may be because they can still earn sufficient income from the ridesharing service. Yuana et al. (2019) makes no mention of drivers' dissatisfaction, possibly for the same reason that the issue is not a significant one in Thailand: that drivers are earning enough that they do not mind the conditions.

The responses of government to the rise of ridesharing have resulted in significant changes to transportation service markets. In the Philippines, Yuana et al. (2019) explained how the Filipino government launched a registration system for ridesharing platform operators, which were categorised as transport network companies. Under this system, drivers have to register with, and pay a fee to, the LTFRB every year. Failure to do so could see the company's operations suspended and result in a fine of PHP 5 million for operating without a formal licence. This creates an argument for passengers that the regulations were created to reduce their chance of having access to safer transportation services.

Meanwhile, in India, since the central government has designated the state governments to manage ridesharing for their own state's benefit, the ridesharing regulations in each area are different. For example, while Karnataka banned motorbike ridesharing and carpooling due to safety concerns, in Delhi and Maharashtra there are no clear ridesharing regulations (Regidi, 2017). This has encouraged passengers to go back to use the availability of the transport service, such as public buses and car ridesharing. The government has faced a number of protests by ridesharing drivers in India who want the regulations reviewed to better support them in receiving employment benefits from the ridesharing platform operators.

The lack of regulation around ridesharing has also caused social unrest, especially among local taxi drivers. In Indonesia and Thailand, the local taxi drivers consider that their governments legitimised ridesharing to support the ridesharing operations, especially as regards unfair competition in the transportation market. According to Yuana et al. (2019), the Indonesian government reviewed its ridesharing regulations several times in response to dissatisfaction on the part of the local taxi and ridesharing drivers; the latest version was implemented in January 2018. These regulations aim for collaboration between ridesharing platforms and local taxi companies, agreement on the pricing mechanism, clear operational areas for ridesharing and local taxis, and the evaluation of vehicles. Previously, the Indonesian transport laws did not allow personally registered vehicles to provide transportation services. The case of Thailand echoes the situation of Indonesia, including in terms of the requirements for vehicle

registration, and the planned legalisation of ridesharing to include the same regulations as listed for the Indonesian case. In Thailand, these plans to legalise ridesharing enraged local taxi drivers, who came out to protest against the legalisation. These patterns of social unrest reflect the feelings of insecurity among the interest groups, especially the local taxi and ridesharing drivers. The Indonesian and Thai governments have not been able to instill confidence that their interests will be protected.

Ridesharing platform operators have adapted in similar ways in the different developing country contexts. In India, Thailand, the Philippines and Indonesia, ridesharing platform operators have developed their platforms to accept both cash and card payment. Moreover, while motorbike ridesharing is banned in many states in India, in Indonesia and Thailand, motorbike services are included in the system, as they can weave through congested traffic, reducing the length of trips and saving time for passengers. This has attracted more technology investors to consider developing platforms for ridesharing. However, as a separate issue, both the Thai and Indonesian governments are struggling with how to regulate motorbike taxis in their countries.

#### **5.4 Comparison between the findings and previous research on ridesharing in developed countries**

This section will compare the findings of this study with the situation of ridesharing in developed countries. The information regarding ridesharing in developed countries is based on the research outlined in Section 2.3 of the literature review, supplemented by some information drawn from the articles and reports collected for analysis in this study during the data collection process. This comparison is expected to provide a better understanding of ridesharing in the developing country context, by demonstrating the similarities and differences to how ridesharing operates in developed countries. This will inform the discussion in the subsequent section about how the developing countries of India and Thailand are adapting to the rise of ridesharing. This will contribute to the address the research question.

The motivation of ridesharing passengers to use the services is similar across developing and developed countries. As found in this study for India and Thailand, US passengers use ridesharing because of the convenience the service offers; with convenience being more important than the cheapness of the ride (Hensley, Padhi & Salazar, 2017). The emergence of ridesharing technology has made passengers' lives easier when seeking a ride. Another motivation for passengers who live in developed countries is the environmental benefits: ridesharing platform operators claim that their service reduces carbon emissions by requiring fewer cars on the road (Money Control, 2017). One difference in motivation appears to be that, in developing countries,

ridesharing fills a supply gap in public transportation, especially in densely crowded cities like Bangkok, Jakarta and Manila. By contrast, the literature has not reported this as an issue affecting ridesharing in developed countries.

The introduction of ridesharing does fill a gap in the transport market of developed countries. In this case, ridesharing services supplement existing local public transportation and taxi businesses, becoming in themselves a form of public transit. Nevertheless, in both developed and developing countries, the rise of ridesharing has caused local businesses to fear for their longevity in the changing transportation marketplace. As ridesharing services become more popular, traditional transportation services that are unable to adapt may find themselves eliminated from the market. However, if they can adapt, they may be able to survive. For example, Meru, the Indian taxi company, adopted ridesharing technology to gain a share of the new market. Where local businesses were seen as failing to adapt to ridesharing, some state governments in developing and developed countries became concerned, causing them to consider how to protect existing transportation businesses so that they would not to be substituted if ridesharing were legalised.

Ridesharing drivers in any part of the world face the same issues; that is, low wages, no employment benefits, little insurance coverage and cost pressures. In India, ridesharing drivers came out in protest over these labour issues; and in the US and UK, drivers went on strike to demand for base fare increase from the platforms. Ridesharing drivers in London turned off their app at 7 am on 10 May, 2019 to boycott the service, while the drivers in Boston and Los Angeles were encourage to turn off their app for full days (Vandermeij, 2019). In each instance, the protests by ridesharing drivers caused problems for local commuters and considerable losses for the ridesharing platform operators. Still, protests do not always achieve their aims. In India, the lack of unionisation among the ridesharing drivers meant that the protests were not successful (Salve & Paliath, 2019).

The governments of both developing and developed countries have been similarly hesitant to permit ridesharing in their countries. Reasons for this include concerns about the safety of passengers, local business disruption, labour issues and appropriate systems of regulation. In India and the US, the state governments individually govern ridesharing, and ridesharing operates differently in each state. In Singapore, ridesharing was legalised on the condition that the ridesharing platform operators have a licence and approval letter from the Land Transport Authority. In addition, to operate in Singapore, ridesharing drivers have to obtain a private hire car driver's vocational licence and register their vehicle with the authorities. Upon

registration, they are provided with stickers to display on their vehicle, to identify registered vehicles (Prasomphuem, 2018). This model was recently used as a case study by the Thai government, to inform the development of ridesharing regulations. In India, where the government has been considering how best to encourage ridesharing drivers to only engage in the work part-time, the models informing the government decision come from Singapore and the US. In Singapore, drivers are limited by how many rides they can accept per day; while in the US, they are limited by how much they can earn per week (Bailey & Arora, 2018). In summary, no one legal framework for ridesharing exists; governments have to adapt existing transportation regulations or create new ones to govern ridesharing and protect all interest groups.

It is apparent that there is a difference in how the ridesharing platform operators adapt, depending on whether they are operating in a developing or developed country. When operating in a developing country, their platforms need to cope with the less-developed infrastructure, such as by being able to accept cash. In developed countries, more effort is put into winning passengers' trusts. In Singapore, for example, Grab has taken full responsibility to care for passengers involved in accidents while travelling in a Grab car. These passengers have received full accident insurance coverage. However, there was no reports on the similar efforts of the ridesharing platform operators in developing countries. Moreover, Grab has been willing to listen to all passenger feedback (Lee, 2019). In both developed and developing countries, ridesharing platform operators have looked at how to increase the number of vehicles registered to their platforms. In the US, just as in the developing country contexts, Uber has sought to offer loans to drivers who could not otherwise afford to buy a car to participate in ridesharing (PYMNTS, 2017).

## **5.5 How India and Thailand are adapting to the rise of ridesharing**

To address the research question of how India and Thailand are adapting to the rise of ridesharing, this study analysed news articles and reports from India and Thailand to identify the perspectives of passengers, local businesses, ridesharing drivers and the government as the four main interest groups affected by ridesharing in these countries. Responses to the concerns of these interest groups on the part of the ridesharing platform operators were also considered to better address how the countries are adapting to the rise of ridesharing. The rationale is as follows: governments adapt their transportation laws and regulations to enforce and protect the rights and benefits of passengers, local businesses and ridesharing drivers, while the ridesharing platform operators in turn respond to the new laws and regulations. By summarising how these

groups are adapting to ridesharing, the following section will raise several points that contribute to the literature on ridesharing.

Ridesharing operates through technological platforms that allow passengers to conveniently hail a ride, either in a car or on a motorbike. The technological platforms have been developed to respond to passengers' demands for quality, including ease of use, protection of their safety and speed of assistance in the case of an incident. The feedback and rating systems included in the platforms provide the chance for passengers to share their opinions and evaluate the services. Passengers ratings can affect ridesharing drivers and the platform operators, but so far have not been able to guarantee passenger safety. Due to the insufficient and ineffective infrastructure in developing countries, incidents may happen more frequently and be worse compared to in developed countries. However, according to the findings in this study, passengers in India and Thailand are willing to accept this risk for the chance to receive better and more convenient services.

Regarding the response of local businesses in India and Thailand to the rise of ridesharing, the findings showed that while some responded by protesting and calling for the government to ban ridesharing services, others, particularly in India, have started using ridesharing technology and adapting their business strategies to benefit from the new trend. For example, some car dealers in India shifted their focus from selling cars to customers generally to providing loans for ridesharing drivers. Importantly, the existing literature provides no specific advice or framework for how local businesses should respond or adapt to ridesharing.

To understand the competition between local businesses and ridesharing platform operators, it would be interesting to know the competitive strategies involved. Ridesharing likely has the competitive advantage through introducing a brand new technology; however, local businesses may still have the greatest familiarity with the preferences of the local market. However, this research found that the local businesses, especially the local taxi services, did not always provide a quality service, and could not meet the demands of increasing urbanisation. This created a gap in supply for ridesharing to fill. This strengthens the contention in the literature that insufficient and ineffective public transportation creates opportunities for ridesharing to disrupt the transportation market.

In terms of the ridesharing drivers, the findings of this study were that they are being exploited by the ridesharing platform operators. Indeed, ridesharing drivers around the world, including in India, have been protesting to demand better working conditions (e.g., increased pay and employment benefits). The working conditions of ridesharing

drivers support the notion in the literature that they are contributors to the gig economy; that is, they are paid by the task, without receiving any benefits or insurance to support them in the case of adverse health impacts from working. Governments and other concerned sectors are urged to consider how to protect the rights of ridesharing drivers and other gig economy workers through the legal system.

On the regulation side, the findings from this study support previous research on the importance to ridesharing of the legal system and its impact on the interest groups. This research reveals the efforts of the governments in India and Thailand to include ridesharing in the legal system. By comparing the findings from the Indian and Thai cases with the previous research undertaken in other developing and developed countries, it has been shown that there is no one-size-fits-all regulatory approach to ridesharing. It can also be argued that the more experience of ridesharing a government has, the more satisfactory the regulations they develop will be to the interest groups. India's government has more experience than Thailand's, because ridesharing has operated longer in India than in Thailand. In addition, state governments in India can separately govern ridesharing. This gives India more chances to experiment with ridesharing regulations, compared to Thailand where ridesharing is governed by central government. Nevertheless, the governments and concerned sectors of every country are working hard on new regulations or adapting existing ones to govern ridesharing in a way that protects all of the interest groups.

The primary motivation of ridesharing platform operators to adapt their business to their different operational environments is to attract passengers. This research has revealed that in India and Thailand, the ridesharing platform operators have made every effort to avoid taking responsibility for their drivers and have dodged local regulations as much as possible. In India, the promises of incentives and strong earnings made by the platform operators to their drivers were broken when they shifted to be more profit-focused. Protests have erupted, with ridesharing drivers demanding fair benefits, and local businesses demanding that ridesharing operators should be forced to engage in fair competition. It seems clear, from this study's findings, that without pressure from passengers, local businesses, ridesharing drivers and the government, ridesharing platform operators will avoid taking any actions that would increase their costs in either developed and developing countries.

# Chapter 6: Conclusion

Ridesharing is part of the sharing economy, which is based on the use of specific technological applications. However, innovation causes various social issues due to the rapid infiltration of new technologies in society. Concerns include trust and safety between passengers, ridesharing drivers and the ridesharing platform operators; local business disruption; exploitation of ridesharing drivers; and legal and regulatory challenges. These concerns impact how ridesharing platform operators adapt to society. Previous research has been conducted on the sharing economy and ridesharing in developed countries, but there has been limited research on them in the context of developing countries. One important previous study was conducted by Yuana et al. (2019) on ridesharing in Indonesia and the Philippines to understand ridesharing in the developing country context. Therefore, this research has followed a similar purpose but focusing on India and Thailand, which have different geographies, demographics and cultures. This study has sought to contribute to previous research strengthening the overall picture of ridesharing in the developing country context.

This research was based on a comparative case study as the research methodology and aimed to lay out ridesharing issues in India and Thailand in order to compare them. The research sought to understand the topic from the perspectives of four interest groups: passengers, local businesses, ridesharing drivers and government. In addition, responses by ridesharing platform operators were also considered. The perspectives were gathered through analysis of online news articles and reports. Thematic analysis was applied to analyse the data.

The findings reveal some differences in ridesharing between India and Thailand. Ridesharing operations in both countries were scrutinised by passengers who were worried about customer service and safety issues. The local businesses in India are gradually adapting to the transport regulations while the local businesses in Thailand, especially local taxi drivers, are finding it difficult to adapt to the rise of ridesharing. Ridesharing drivers in India have come out on strike because of insufficient earnings. In contrast, ridesharing drivers in Thailand do not seem as concerned about this issue.

The government in each country addresses ridesharing issues differently. The Indian government included ridesharing in the Motor Vehicle Act 2017 and regulations are regularly reviewed to catch up with the rapid changes in ridesharing practices. However, there is not yet any regulation regarding ridesharing in Thailand. The government in Thailand is, however, planning to legalise ridesharing in March 2020. This has caused anger among the local taxi drivers, including strikes against the

government and the ridesharing platform operators. Meanwhile, the ridesharing platform operators in both countries have apologised to their passengers for the inconvenience caused by the protests and have cooperated with the governments to address the issues. In addition, they are adapting to conditions in both developing countries by developing their platforms to be capable of accepting a wide range of payment methods and by cooperating with other local businesses in order to expand their businesses.

The contribution of this research to the ridesharing literature pertains to the interaction between passengers, local businesses, ridesharing drivers and government, and the interaction of the ridesharing platform operators with the four other interest groups. The feedback and rating systems help the ridesharing platform operators to hear about the passengers' and the ridesharing drivers' thoughts about the platforms, but it cannot prevent incidents from occurring. Feedback on the ineffective systems alert the ridesharing platform operators to the need to improve their systems, and the government to have regulations for passenger safety. There is no exact model for the local businesses and the ridesharing drivers to follow in adapting to ridesharing. Also, there is no one-size-fits-all or one legal framework that would fit ridesharing operations in all countries. These interest groups have to learn how to adapt to change. If they do not, one of the interest groups will benefit at the expense of the others, which can lead to social unrest.

There are some limitations to this research. Due to the limited time frame, the data in this research was gathered from online news articles and reports from India and Thailand. For example, there are just seven reports mentioning ridesharing in India, but there are no reports on the topic from Thailand. In addition, this research could not include all news articles and reports written in local languages. The data from India is gathered from online sources written in English only, due to the researcher's lack of knowledge of Hindi and other languages used in India. In addition, English is an official language in India, leading to a sufficient number of news articles and reports to analyse. However, there are not as many news outlets in English in Thailand because English is not an official language in Thailand. Therefore, for a sufficient number of sources, the research included Thai sources to balance the number of sources between Thailand and India.

In terms of further research, to reveal more detail about ridesharing in India and Thailand, it could be good to also include data from interviews as primary data, to supplement news articles and reports as secondary data. In addition, it would be good to include data in other local languages, also to expand the understanding of each

perspective. In terms of the timing of the research, this research studied the rise of ridesharing from 2016 to 2019. To learn more about adaptation to ridesharing, the introduction phase of ridesharing in developing countries could also be considered. In addition, as technology moves fast, self-driving vehicles are rapidly being developed. What will the future of ridesharing look like if they are successful?

Specific to the research question of this dissertation, it would be interesting to study the regulatory transition period further. For example, concerning the insufficient benefits for the ridesharing drivers, India's government has in 2019 proposed a model of 'no-loss-no profit' for ridesharing, which encourages ridesharing drivers to consider their job as part-time. Questions for further research include how will the government and the concerned sectors, including the ridesharing drivers, deal with the period of regulatory transition from when they operate ridesharing as a full-time job to part-time? And how do other interest groups do in the transition period? Meanwhile, Thailand's government is going to implement ridesharing regulations in 2020. How will the government address the conflict with the local taxi drivers? After ridesharing has been operating in Thailand for a while, will ridesharing become a full-time job? Will the ridesharing drivers follow the same pattern as in India and other countries where drivers protest due to the low income from the platforms? These questions still need to be answered to learn more about how developing countries are adapting to the rise of ridesharing.

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# Appendix A: Thai quotes

In this research, the search term used to gather news articles and reports from Thailand was ‘ปัญหาแอปเรียกรถผ่านมือถือในประเทศไทย’. The following are the Thai quotes used in this research which I have directly translated from Thai to English.

the policy to support ridesharing directly impacts the taxi’s businesses that have been operating legally, so that they need remedies\* (Khaosod, 2019)

‘นโยบายดังกล่าวอาจมีผลกระทบ โดยเฉพาะทางลบกับผู้ขับรถแท็กซี่  
ซึ่งจะต้องเยียวยาให้ผู้ขับรถแท็กซี่ที่ประกอบการอย่างถูกกฎหมายด้วย’ (Khaosod, 2019).

There has been no one able to address this issue. However, the new government, who wasn’t officially appointed, announced the new policies to support the foreign investors and caused conflicts among Thai people rather than using the existing regulations to punish those who misbehaved\* (Kom Chad Luek, 2019)

‘ไม่มีใครแก้ปัญหาได้เลย แต่พอมีรัฐบาลชุดใหม่ไม่ทันได้แต่งตั้งอย่างเป็นทางการเลย  
กลับออกมาแถลงข่าวว่าจะสนองรับนโยบายใหม่เสียแล้ว  
แทนที่จะบังคับใช้กฎหมายกับผู้กระทำความผิด กลับไปแก้กฎต่างๆ  
เพื่อเอื้อประโยชน์ให้แก่นายทุนต่างชาติที่ผิดกฎหมายและสร้างความแตกแยกให้แก่คนไทย’ (Kom  
Chad Luek, 2019).

The company confirms that it will comply with every regulation and collaborate with the government. However, it is necessary for the company to use the white-plate vehicles to serve their customers because the numbers of yellow-plate vehicles are not sufficient to the current demand. \*(Pineapple News Agency, 2018).

‘บริษัท แกร็บแท็กซี่ (ประเทศไทย) จำกัด ยินพร้อมให้ความร่วมมือกับรัฐ  
แต่ยังจำเป็นต้องมีรถมอเตอร์ไซค์ป้ายขาวออกมารับบริการ แม้ว่าจะเป็นบริการที่ผิดกฎหมาย  
เพราะมอเตอร์ไซค์ป้ายเหลืองในระบบ GRAB มีไม่เพียงพอให้บริการกับความต้องการ’ (Pineapple  
News Agency, 2018).

# Appendix B: Sample tables of data analysis

## 1. Data on ridesharing in India

| Date     | Source              | Title  | Author                  | Key points   | Theme   | Whose interest/Point of view    |
|----------|---------------------|--|-------------------------|--|---|---------------------------------|
| 10/02/16 | Afaqs               | Uber goes for fresh logo, but faces rough ride ahead                           | Priyedarshi, S.         | Various issues of Uber while operating in India: Safety (rape case, no call centre), and some issues that Uber has to think ahead.                 | Passenger safety  | Passengers                      |
| 6/03/16  | All About Marketing | Uber Moto and Ola Bike launched in Bengaluru. Will bike taxi survive in India? | Krishna                 | Bike taxis cannot survive if government permit; Safety while driving, concern to the traditional public transportation (e.g. bus); female drivers. | Passenger safety  | Passengers                      |
| 26/03/19 | Auto Tech Review    | Shared mobility survey points at ride-hailing for cost-effective mobility      | Auto Tech Review Bureau | Why ridesharing is so popular.   | Motivations for passengers and ridesharing drivers to use the platforms | Ridesharing platform operators  |
| 19/08/16 | BBC                 | India taxis wars: the rise of the start-ups                                    | Hashmi, S.              | Competition between the traditional taxi and ridesharing application.  | Price war strategy by ridesharing platform operators                    | Ridesharing platform operators. |
| 23/11/16 | BGR                 | Ola adds another cashless option; lets you pay                                 | Morey, D.               | Ola expands its payment option to credit and debit cards.  | Payment alternatives to ridesharing services                            | Ridesharing platform operators  |

|          |                     |   |                      |   |  |  |
|----------|---------------------|---|----------------------|---|--|--|
|          |                     | through your credit or debit cards                              |                      |   |  |  |
| 12/04/16 | Business Standard   | Ola, Uber fight the price war                                   | Peermohamed, A.      | Ola launches ads campaigns and cheaper ride, Micro, to compete against Uber.  | Price war strategy by ridesharing platform operators           | Ridesharing platform operators (Ola)       |
| 5/04/16  | Business Standard   | OneRyder launches bike taxi service in Delhi                    | Press Trust of India | New Bike taxi in Delhi.   | Ridesharing platform operators offer a new service.            | Ridesharing platform operators             |
| 30/06/19 | Business Today      | Ola, Uber's ridesharing services get a brake in Karnataka       | Jaswal, M.           | Karnataka has prohibited Ola and Uber from continuing their pool services in the state.   | State government ban carpooling services.                      | Government                                 |
| 10/02/16 | Business Wire India | 360Ride launches its ridesharing service in Delhi NCR           | Business Wire India  | 360Ride - new ridesharing business.   | Launching a new ridesharing platform operator                  | Ridesharing platform operators             |
| 21/12/16 | Business World      | Ride-hailing firms welcome liberal Indian taxi policy blueprint | BW Online Bureau     | The regulatory framework for the taxi industry is needed to promote mobility and discourage car ownership - support ridesharing firms.            | Ridesharing platform operators welcome ridesharing regulations | Ridesharing platform operators.            |
| 30/01/18 | Citizen Matters     | Lakhs register in carpooling apps across Indian cities          | Navpa, P. K.,        | The benefits of carpooling, save times, money, building relationship and reduce stress during rides, encourage people to participate in the apps. | Benefits of carpooling   | Passengers; Ridesharing platform operators |
| 13/07/16 | Citizen Matters     | Ola, Uber may have changed city commute, but all is not well.   | Akshatha, M.         | City commuting pattern changes after the emergence of technology in transportation.   | The motivation for passengers to use the platforms             | Passengers                                 |

|          |                     |  |                           |  |   |                                      |
|----------|---------------------|--|---------------------------|--|---|--------------------------------------|
| 6/12/17  | Clean Technica      | India's Ola is piloting combined Ridesharing/Bikesharing program             | Ayre, J.                  | Ola launched dockless bike-sharing, which is available in the same app as the cab-sharing, wish for sustainable alternatives.  | Ridesharing platform operators offer a new service. | Ridesharing platform operators (Ola) |
| 11/11/19 | CNBC                | Ola, Uber faces a severe shortfall of drivers and cars                       | Variyar, M. & Sachdev, A. | The supply of ridesharing cabs decreases, causing passengers to wait longer for the ride. This is due to the low wage, which is not enough for a majority of them who have loans with banks for cars.              | Ridesharing drivers decrease – low wages            | Ridesharing drivers                  |
| 10/05/17 | Digitalist Magazine | Ride sharing goes hyperlocal with Jugnoo                                     | Overby, S.                | Jugnoo, rickshaw ridesharing, implements 'Hyperlocal strategy' focusing on the local needs rather than profits.  | Ridesharing platform operators offer a new strategy | Ridesharing platform operators       |
| 17/09/19 | DNA                 | Soon, private vehicles to provide carpooling service                         | Zee News                  | The transport ministry intends to make ridesharing by private cars. owners a no-profit no-loss service. This requires the existing carpooling application to tweak their application to meet the new requirements. | 'no-profit no-loss' model                           | Government                           |
| 28/06/19 | Economic Times      | Ola, Uber told to withdraw ridesharing services in Bengaluru                 | Menezes, N.               | Karnataka transport department on Friday directed Ola and Uber to withdraw carpooling feature from their mobile applications immediately.  | State government ban carpooling services.           | Government                           |
| 25/07/18 | Economic Times      | Government considers cap on the number of shared rides by private car owners | Bailay, R.; Arora, R.     | The government is considering the Singapore model under which a private car owner can provide two  | Singapore model and US model                        | Government                           |

|          |                |  |            |   |   |                                |
|----------|----------------|--|------------|---|---|--------------------------------|
|          |                |  |            | shared rides with a day or the US model where there is a cap on the money a car owner can make in a year through carpooling services. |   |                                |
| 11/05/16 | Economic Times | How P2P ridesharing app Pickup wants to provide a safe carpooling experience | Thomas, A. | Pikup, community ridesharing platform, provide a safe experience.   | Launching a new ridesharing platform operator | Ridesharing platform operators |
| 29/08/17 | Engadget       | Uber gives free insurance to drivers in India                                | Fingas, J. | 450,000 Indian drivers got free insurance from Uber which cover death, disability and hospital stay in the event of accidents.        | Benefits to ridesharing drivers               | Ridesharing drivers            |

## 2. Data on ridesharing in Thailand

| Date     | Source     | Title   | Language | Author         | Key points  | Themes   | Whose interest/Point of view |
|----------|------------|---|----------|----------------|---|--|------------------------------|
| 15/03/19 | 77 Khaoded | Motorcycle taxi group gathered at 'Transportation Department' to ask for the update of illegal ridesharing application. | Thai     | Kamonsuwan, N. | Motorcycle taxi group proposed to the transportation committee about the operation of an app-based motorcycle taxi. The request included the current issues of the unfair competition among the motorcycle taxis which operate illegally. | Motorbike taxis protested against the government on the ridesharing legalisation issues. | Local taxi drivers           |

|          |  |   |      |                        |  |   |  |
|----------|--|---|------|------------------------|--|---|--|
| 20/09/19 | Amarin TV;<br>Thairath;<br>Workpoint<br>News | A drunk, high school girl,<br>was raped while using<br>ride-hailing service to go<br>back to her dorm                           | Thai | Amarin TV;<br>Thairath | A Year-11 high school girl was<br>raped at the back seat of the<br>car while using ride-hailing<br>service to go back to her<br>dorm.  | Passenger safety  | Passengers   |
| 17/05/18 | Bangkok<br>BIZ News                          | Motorcycle taxi groups<br>protested Grab Bike<br>which offered<br>opportunities for White-<br>Plate bike to serve<br>passengers | Thai | Bangkok<br>BIZ News    | Motorcycle taxi group<br>gathered at the Grab Taxi<br>company to protest<br>demanding for the company<br>to stop opening the<br>opportunity for the white-<br>plate bike (registered as the<br>personal vehicle) to use for<br>transportation service<br>through mobile application<br>commercially. | Motorbike taxis ban<br>ridesharing platform<br>operators  | Ridesharing<br>platform<br>operators;<br>Local taxi<br>drivers |
| 3/02/17  | Bangkok<br>BIZ News                          | The popular app-based<br>cabs raise their<br>advantages to attract<br>their customers.  | Thai | Bangkok<br>BIZ News    | App-based cabs offer<br>convenient transportation<br>service, employment<br>opportunity for someone who<br>has low income. However, the<br>business impacts various<br>interest groups.  | Motivation for<br>passengers to use the<br>platforms; The<br>operation negatively<br>impacts the local<br>businesses. | Ridesharing<br>platform<br>operators;<br>Local taxi<br>drivers |
| 20/02/19 | Bangkok<br>BIZ News                          | App-based taxi war is<br>very intense. The<br>passengers seek for<br>'cheap, fast and good'<br>options.                         | Thai | Bangkok<br>BIZ News    | Most of Bangkok commuters<br>expected for the<br>improvement to address<br>traffic congestion,<br>transportation system to<br>cover the most area, increase<br>the supply of transportation<br>service, improve the driver's   | Motivation for<br>passengers to use the<br>platforms  | Passengers   |

|          |              |   |         |                    |   |  |   |
|----------|--------------|---|---------|--------------------|---|--|---|
|          |              |   |         |                    | behaviour and not to refuse their passengers.   |  |   |
| 27/03/18 | Bangkok Post | As Uber bows out, Grab is the only choice | English | Reuters            | The various expectation from drivers, customers and regulatory sectors on Uber taken over by Grab.  | The development of the ridesharing platform operator             | Ridesharing platform operators;<br>Ridesharing drivers;<br>Passengers |
| 28/02/19 | Bangkok Post | Get app enters ridesharing arena          | English | Hicks, W.          | Low penetration rate supports 'blue ocean' - (with lots of room to grow').  | Launching a new ridesharing platform operator                    | Ridesharing platform operators  |
| 9/10/18  | Bangkok Post | Grab requests special licences            | English | Leesa-nguansuk, S. | The country head of Grab Thailand requests to the government for special licences for ridesharing because the business can provide more benefits to society.  | Ridesharing platform operators support ridesharing legalisation. | Ridesharing platform operators  |
| 27/09/19 | Bangkok Post | Ride-hailing plan ignites protest         | English | Hongtong, T.       | Taxi motorcyclists protested against Grab due to the unfair competition among the taxi motorcycle market. The existing taxi motorcyclists were legally registered with the Land Transport Department, but they incomes drop because Grab drivers take their market share. | Motorbike taxi driver protested against Grab                     | Ridesharing platform operators;<br>Local taxi drivers                 |

|          |              |  |         |                    |  |  |  |
|----------|--------------|--|---------|--------------------|--|--|--|
| 6/09/19  | Bangkok Post | Ridesharing firms 'to be legal by March'                           | English | Reuters            | Ridesharing firms 'to be legal by March'.  | Ridesharing legalisation                             | Government                                 |
| 10/07/17 | Bangkok Post | Ridesharing rage   | English | Leesa-nгуansuk, S. | Most countries in Asia have regulations for ridesharing except Thailand due to the consideration of passenger safety, car insurance and dynamic pricing. | Ridesharing legalisation                             | Government                                 |
| 17/09/19 | Bangkok Post | Taxi drivers demand B8.5Bn compensation over Grab                  | English | Hongtong, T.       | Taxi drivers demand 8.5 billion baht to compensate from the government if the GrabTaxi service is legalised.   | Taxi drivers protested against the government.       | Government; Local taxi drivers             |
| 27/03/18 | Bangkok Post | The merger of Grab and Uber drive monopoly, pricing concerns       | English | Leesa-nгуansuk, S. | The merger between Grab and Uber is driving market concentration to monopoly levels. The price may increase to the unaffordable levels.                  | The development of the ridesharing platform operator | Ridesharing platform operators; Government |
| 19/05/16 | BBC          | Thailand suspends Uber and Grab motorcycle taxi service            | English | BBC                | Thailand suspends Uber and Grab motorcycle taxi service because they broke local rules and are clashing with registered transport companies.             | Ridesharing was illegal in Thailand                  | Government; Local taxi drivers             |
| 11/12/18 | Bloomberg    | Ridesharing Giant Grab hopes for a boost after Thailand's election | English | Chuwiruch, N.      | Ridesharing Giant Grab hopes for a boost after Thailand's election.  | Ridesharing legalisation                             | Ridesharing platform operators; Government |

|          |                |  |      |                |  |  |   |
|----------|----------------|--|------|----------------|--|--|---|
| 1/08/19  | BLT<br>Bangkok | Car and Motorbike taxis request to DLT to review fares and emphasise if Grab is legalised.       | Thai | BLT<br>Bangkok | Transport Minister asserted that the car and motorbike taxi should organise their association and nominate their representatives to the discussion about how to address their service issues.  | Taxi drivers protested against the government. | Ridesharing platform operators;<br>Local taxi drivers |
| 5/07/18  | BLT<br>Bangkok | Government coordinates with DLT to reform Taxi TDRI.   | Thai | BLT<br>Bangkok | TDRI suggested that it is possible to legalise ridesharing without changing the vehicle plate from white (registered for personal use) to yellow (registered for commercial use) by the following conditions.  | Suggestion from concerned sectors              | Local taxi drivers                                    |
| 7/07/19  | Bottom<br>Line | Even though the page to vote for Grab legalisation is fake, it is time for Grab to be legalised. | Thai | Bottom<br>Line | There was a Facebook page from DLT asking for a vote from the public to support the legalisation of Grab. This then was explained by DLT that Facebook page was the fake one. However, the taxi association protest against the Grab legalisation due to its impact on the taxi driver's income. | Ridesharing legalisation                       | Government;<br>Local taxi drivers                     |
| 28/01/18 | Daily News     | Encourage to download 'Taxi OK' application.   | Thai | Daily News     | DLT launched and encouraged to download the 'Taxi OK' application.   | 'Taxi OK' mobile application                   | Government;<br>Local taxi drivers                     |

|          |            |  |      |            |  |                          |                                   |
|----------|------------|--|------|------------|--|--------------------------|-----------------------------------|
| 20/06/19 | Daily News | DLT is assigned from the new Minister who is expected to support 'Grab' legalisation | Thai | Daily News | DLT is ready to be assigned from the new transport minister to prepare to legalise ridesharing. The department will set up laws and regulations teams to draft terms and conditions for transport. Also, the Minister agrees that the 'Taxi OK' application doesn't work. No taxis come to pick up their passengers. | Ridesharing legalisation | Government;<br>Local taxi drivers |
|----------|------------|--|------|------------|--|--------------------------|-----------------------------------|