



Gender-Segregated Transportation in Ride-Hailing:

NAVIGATING THE DEBATE



ACKNOWLEDGMENTS

This report was supported in part by the World Bank Group's Umbrella Facility for Gender Equality (UFGE), a multi-donor trust fund administered by the World Bank to advance gender equality and women's empowerment through experimentation and knowledge creation to help governments and the private sector focus policy and programs on scalable solutions with sustainable outcomes. The UFGE is supported with generous contributions from Australia, Canada, Denmark, Finland, Germany, Iceland, Latvia, the Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom, United States, and the Bill and Melinda Gates Foundation.

This project was conducted by the IFC Gender and Economic Inclusion Group under the overall guidance of Henriette Kolb. It was led by Alexa Roscoe with research by Vandana Vasudevan and support by Ahmed Nauraiz Rana and Charlotte Ntim. Technical comments were provided by the World Bank Group's Muneza Mehmood Alam, Karla González Carvajal, Lisa da Silva, Karla Dominguez Gonzalez, Aphichoke Kotikula, Nato Kurshitashvil, Eleanor Robbins, and Carol Marina Tojeiro. Editing was conducted by Lucy Williams and Marcy Gessel, and design by Groff Creative LLC.

The team would like to thank the many experts around the world who generously contributed their time and expertise: An-Nisa's Mehnaz Sarwar; Annisa Cars' Sade Agboola; Bolt's Gareth Taylor and Sandra Särav; Cabify's David Pérez Piñeiro; Careem's Colin Judd and Gemma McKeown; ChauffHer's Danielle Wakelin and Greg Wakelin; Didi Chuxing's Liang Sun, Melody Hua Tu, Lilian Linlin Liu, Evelyn Yinghan Pan, Qin Lian; FemiTaxi's Charles-Henry Calfat Salem; Fyonka's Abdallah Hussein; GoJek's Josephine Chitra and Siti Astrid Kusumawardhani; GoPink Cabs' Anuradha Udayshankar; Grab's Marian Panganiban; Green Cab's Amiene van der Merwe; International Transport Expert Heather Allen; Harvard's Ammar. A. Malik; Jaubra's Alvimar da Silva; Kapten's Sergio Pereira; Koala Kabs' Shailaja Mittal; Lady Bug's Kamal Buddhahhatti; Ladybird Logistics' Fredrik Morsing, Payin Marfo, and William Tewiah; Lily Rides' Syed Saif; Meru's Nilesh Sangoi; Miss Taxi Ghana's Esenam Nyador; OECD ITF's Magdalena Olczak, Sharon Masterson, and Wei-Shiuen Ng; Ojesy's Evilita Adriani; Ola Mobility Institute's Aishwarya Raman; PickMe's Tasnim Salie; Priyadarshini's Susiben Shah; Riding Pink's Denise RP; Rosy and Pink Cabs' Mandy Welsh; Sakha Cab's Meenu Vadhera; She Taxi's Mohammed Sunish; TaxShe's Vandana Suri; The Barefoot Facilitator's Rehana Moosajee; The City of Buenos Aires' Julieta Bramuglia; Uber's Abhinav Bahl, Dana Al-Zaben, Karim Dabbour, Rachel Freidlander-Holm, Rana Kortam, Rebecca Payne, and Renata Gagetti; The Urban Catalysts' Sonal Shah; Viira Cabs' Revathi Roy; Vital Voices' Eugenia Podesta; and Women Cab's Shailendra Singh.

IFC is grateful for company contributions that made the analysis in this report possible, including company data from Uber related to its work in Brazil and the Kingdom of Saudi Arabia.

Foreword

The COVID-19 pandemic has wreaked havoc across the world. But several countries are beginning to gradually reopen their economies. As people look to get back to work, a growing number of employers, local governments, and transportation authorities are asking not only how to revive transportation systems but also how to ensure that in a post-pandemic world they are accessible, affordable, and safe for all.

Inclusive, safe, and affordable transportation is even more crucial for women. Without inclusive transportation, women are denied their right to move freely in public spaces and are less likely to find good jobs. Women face barriers both as passengers and transportation service providers, ranging from underrepresentation across the sector to widespread safety and security concerns.



The public sector has long looked to gender-segregated offerings, such as women-only train carriages, as one potential solution to address women’s transportation needs—though not without substantial debate. Increasingly, the private sector is looking to the same solution, trying to attract women as drivers and riders, most notably in the emerging ride-hailing industry. To date no analysis has considered the success of these efforts in increasing women’s mobility, as riders or drivers.

This discussion paper takes a first step toward analyzing the development and business impact of gender-segregated transportation in the private sector, drawing on interviews with over 30 companies and newly available data. It finds that ride-hailing and other individual forms of transportation are widely adopting women-only services, and seven distinct models are emerging. Each of these models presents distinct opportunities for women as drivers and riders, but also faces considerable operational barriers. This paper unpacks the debate surrounding segregated services and if they can support women—while offering suggestions for the future.

IFC’s role is to highlight and address key questions that emerge in the private sector in emerging markets around the world—and women’s access to jobs and assets is one of the most intractable issues these economies face. I hope the issues raised in this paper help the transportation sector “build back better” after the pandemic to develop the inclusive transportation offerings needed for women to thrive.

Sincerely,

Hans Peter Lankes

Vice President, Economics and Private Sector Development
International Finance Corporation



© International Finance Corporation 2020. All rights reserved.
2121 Pennsylvania Avenue, N.W.
Washington, D.C. 20433
Internet: www.ifc.org

IFC, a member of the World Bank Group, creates opportunities for people to escape poverty and improve their lives. We foster sustainable economic growth in developing countries by supporting private sector development, mobilizing private capital, and providing advisory and risk mitigation services to businesses and governments. This report was commissioned by IFC through its Gender and Economic Inclusion Group, which works with IFC clients to reduce gaps in economic opportunity between women and men in the private sector while enabling companies and economies to improve their performance. For more information about IFC's gender work, please visit www.ifc.org/gender.

IFC does not guarantee the accuracy, reliability, or completeness of the content included in this work, or the conclusions or judgments described herein, and accepts no responsibility or liability for any omissions or errors (including, without limitation, typographical errors and technical errors) in the content whatsoever or for reliance thereon. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of the World Bank Group concerning the legal status of any territory or the endorsement or acceptance of such boundaries. The findings, interpretations, and conclusions expressed in this volume do not necessarily reflect the views of the Executive Directors of the World Bank Group or the governments they represent.

All other queries on rights and licenses, including subsidiary rights, should be addressed to IFC Communications, 2121 Pennsylvania Avenue, N.W., Washington, D.C. 20433.

Contents

i	FOREWORD
2	Executive Summary
7	Introduction and Methodology
11	Women and Transportation
21	Gender-Segregated Transport in Mass Transit
29	Operational Challenges and Solutions in Emerging Models of Gender-Segregated Transport
41	Case Studies
42	Sakha Cabs Combines For-Profit and Nonprofit Models to Get Women on the Road in India
45	Fyonka's Women Exclusive Model Takes to the Road in Egypt
47	Lily Ride and Ojek Syari Launch Moto Services for Women in Indonesia and Bangladesh
50	Taxshe and Koala Kabs Target High-Value Customers in India
51	The Government of Kerala Supports the Development of She Taxi
53	PickMe Pilots a Rider Opt-In Option in Sri Lanka
54	Green Cab South Africa Finances Green Vehicles for Women Drivers
55	Regulatory Barriers Shut Down Rosy and Pink Cabs and Pink Ladies in the United Kingdom
58	Uber's "Women Rider Preference" Feature Launches in Saudi Arabia and Brazil
61	Didi Chuxing and 99 Introduce "Algorithmic Prioritization" and Driver Opt-In
63	Ladybird Logistics Introduces Women Drivers to the Business of Long-Distance Transport
67	Revisiting the Debate
70	REFERENCES

Executive Summary

WHY THIS PAPER

Inclusive transportation is a key, but often underemphasized, catalyst for gender equality.

As transport providers women are widely underrepresented and as passengers they face persistent and global challenges in terms of accessibility, affordability, and safety. This has large-scale implications both in terms of women's freedom of movement and in access to jobs and markets: the International Labour Organization (ILO 2017) has written that transport gaps reduce women's labor force participation by more than 15 percentage points.

In the face of these challenges, the market continues to show demand for gender-segregated transport (GST) models, including, increasingly, in ride-hailing and other e-mobility services. A six-country ride-hailing study by the International Finance Corporation found 20 percent of women riders said the lack of women drivers limits the number of trips they take, and 44 percent said they would be more likely to use the service if they had the option of selecting a woman driver. Evidence of driver demand continues to grow; at Uber Brazil, more than half of women started driving more when a GST offering was introduced. Interest in GST in ride-hailing is evident not just in survey results but also in the increased emergence of transportation start-ups that specialize in GST around the world.

Yet, GST remains heavily debated both in terms of its benefits to women and its efficacy within broader transport systems. Proponents claim that it helps meet women's urgent needs for safe transportation, one of the biggest barriers to women's economic participation, and represents an important step forward for women whose movement is constrained. Critics claim that

existing models have been met with varying degrees of commercial success and that the approach might reinforce social norms that restrict women's freedom and mobility without increasing their safety.

Existing analysis of GST has focused almost exclusively on mass transit models, such as trains or buses, with limited reference to the increasing prevalence of ride-hailing services or other transport services. This paper seeks to fill that gap by capturing insights from existing studies on mass transit and by adding new findings on passenger and logistics services, with a focus on ride-hailing. Research was conducted through interviews and consultations with more than 30 companies, featured in case studies throughout the paper, as well as with experts on gender and transportation. This report seeks to capture the debates related to GST, women's mobility, and economic participation as well as the practical operational challenges specific to GST.

BUSINESS IMPLICATIONS

No single model defines emerging GST services. This paper identified seven different delivery models (see table ES.1). The first of these, "women-exclusive" services, represents what may be most commonly understood as GST—namely, those in which the platform registers exclusively women drivers, who are matched only with women riders. However, the others outlined in table ES.1 have adopted variations that provide drivers, riders, or both with different levels of ability to opt into the services. The level of choice given to users and the option of whether this choice sits with the driver, rider, or both, are the two key factors that distinguish the models.

Table ES.1 Operational models for gender-segregated transport services

Model	Description	Indicative companies
Women-exclusive	The platform registers only women drivers, who are matched exclusively with women riders.	Lily Ride—Bangladesh (page 47) Femitaxi—Brazil An-Nisa—Kenya Fyonka—Egypt, Arab Rep. (page 45) GoPink Cabs, Meru Eve, Pink Taxi, Women’s Cabs, She Taxi (page 51), Sakha Cabs—India (page 42) Ojesy—Indonesia (page 47) ChaufHer—South Africa Rosy and Pink Cabs, Pink Ladies—UK (page 55)
Open customers	The platform registers only women drivers but enables drivers to serve both women and men riders.	Miss Taxi Ghana—Ghana Priyadarshini—India Lady Bug—Kenya Green Cab—South Africa (page 54)
Driver opt in	Women drivers may elect to serve either men or women passengers or opt in to serve only women passengers at any time; passengers are not able to opt in to receive a female or male driver.	99—Brazil (page 61) Uber’s “Women Rider Preference” feature—Saudi Arabia and Brazil (page 58)
Rider opt in	Women riders may select female drivers; drivers may not elect to serve only women passengers.	PickMe—Sri Lanka (page 53)
Algorithmic prioritization	Women drivers and passengers are automatically matched when the pairing would not increase pickup wait times; neither drivers nor riders opt in or out of the selection.	Didi Chuxing—China; 99—Brazil (page 61)
Limited clientele	The platform registers exclusively women drivers for a select group of riders, particularly children or families but also groups such as corporate clients.	Taxshe and Koala Kabs—India (page 50) Annisa Cars—United Kingdom
Delivery and logistics services	Women drivers offer delivery and logistics services, such as food delivery or in-city transport.	Ladybird Logistics—Ghana (page 63) Viira Cabs—India

Gender-segregated models of all types face additional complexity in managing service delivery and making a profit. Ride-hailing relies on successful management of driver supply and customer demand. GST models introduce or exacerbate unique operational challenges, including (a) low driver supply due to women’s severe underrepresentation in the transport sector; (b) highly dynamic demand among both riders and drivers for a GST service; (c) potential for increased passenger wait times or reduced driver incomes; and (d) the accurate identification of user gender identity. All these factors can make reaching scale and breakeven difficult for GST companies.

To answer these challenges, companies have adopted a variety of responses, particularly narrowing coverage to certain hours, locations, or client types. By limiting the areas where or times when services are available, companies could better match demand and supply and manage user expectations regarding safety. Notably, companies have taken opposing approaches to optimizing hours of operations. Some provide the option only during the day, when more women drivers are on the road, while others have the option only at night, when rider demand peaks.

Another common response to operational challenges has been to focus on serving specific customer groups, particularly those that have expressed consistent demand or willingness to pay higher prices—for instance, families with children or corporate clients providing transport benefits to their employees for work before or after hours. Similarly, some companies have increased prices for women-provided services, either by charging base prices above market rates or by charging a supplement for those opting into the product. This strategy reduced the number of women who could use the product but also ensured driver incomes did not decrease because of a more limited customer base.

Companies also intentionally addressed some of the largest barriers to women’s representation as drivers: safety risks, restrictive social norms, and training.

Much of women’s low participation in ride-hailing is due to strong social norms against entry into a nontraditional sector—or, in some markets, into the labor force at all. This barrier is reinforced by the perception of driving as a risky profession: many of the companies featured here made proactive efforts to meet with family members as part of their recruitment strategy, or even to get their formal buy-in into the process. Most companies interviewed also invested heavily in recruitment and training beyond levels typical for cab or ride-hailing companies.

DEVELOPMENT IMPACT

For drivers, GST does appear to offer a pathway into a sector in which women are widely underrepresented.

For women who would not otherwise opt to work in transportation or for those who would not be in the labor market at all, GST can make driving more appealing. For instance, in a survey ahead of the launch of its “Women Rider Preference” service following the legalization of women’s driving in the Kingdom of Saudi Arabia, Uber found that 74 percent of prospective drivers were only interested in driving for other women.

Equally notable, in some instances women who started by driving with GST arrangements went on to drive all customers. For instance, Uber Saudi Arabia reported that women who started with “Women Rider Preference” decreased use of the program over time and opted to serve both men and women riders as they became more comfortable working as drivers. This finding was echoed anecdotally but repeatedly by other companies in various forms. For example, in Ghana, Ladybird was able to recruit for the more rigorous job of long-distance oil transport from groups of women who had already learned to drive local buses.

For riders, GST addresses social norms but not necessarily other barriers related to inclusive transport, such as affordability. Low driver supply, rather than lack of customer demand, continues to be the key barrier to growth for most companies interviewed, implying a continuing need among women riders for GST. However, demand is highly variable, peaking at night or when passengers are traveling alone, indicating that GST is more likely adopted when there is a high perception of safety and security risk among other means of transport.

COVID-19 and the Ride-Hailing Industry:

Research for this report took place in late 2019 and early 2020, ahead of the global spread of COVID-19. In the months since, the ride-hailing industry has been severely impacted. Many markets have seen near complete collapse in travel and some governments have implemented lockdowns which have included the prohibition of ride-hailing services. Early data indicates that women may be disproportionately impacted by the pandemic due to rises in care responsibilities, job loss, exposure as front-line workers, and incidence of gender-based violence.

At the time of publication, most locations remain under at least some health-related mobility restrictions. However, a call has also emerged to “build back better”: to focus on solutions which do not replicate existing challenges, but which solve them. For ride-hailing, this call has two immediate implications: first, ensuring that women are not pushed out of the industry due to a rise in global unemployment, and second, ensuring that services can continue to meet women’s transport needs. The findings of this report indicate that gender-segregated transport may be one of many urgently required solutions to transport innovation.

GST can get more women moving where they face safety fears or restrictive social norms. However, geographical restrictions or pricing premiums, where they exist, mean that the service would remain out of reach for many who would otherwise benefit from the service, limiting further growth. Additionally, previous studies on mass transit have identified negative externalities from GST, such as the expectation that women travel only in carriages reserved for them, reducing their overall mobility.

Addressing safety and security in transportation remains a concern for women drivers and riders as well as a key determinant of their transportation choices.

Ride-hailing companies are under increased pressure to track, monitor, and, increasingly, report on safety and security incidents either through public reporting or through information sharing with relevant authorities. GST is typically adopted alongside an evolving set of responses, including in-app emergency response buttons, location sharing, and automated alerts for when trips go off course.

GST represents a single piece of the transport ecosystem—other solutions for women are urgently required. For both drivers and riders, demand for GST is in many ways reflective of a transportation ecosystem that often fails to meet mobility needs for safe, affordable, and accessible services. GST is one possible response among many to increase inclusive transportation for women and other underserved groups. Other proven responses include (a) keeping public transport costs low; (b) timing public services to meet women’s transport patterns outside peak commuting hours; (c) adopting the design of safety and security measures, such as increased lighting; (d) addressing social norms around women’s mobility; (e) providing bystander and anti-harassment training for passengers; (f) recruiting women into nontraditional roles across the sector; and (g) introducing low-cost ride-hailing options like motorcycles or pooled rides.



Introduction and Methodology

EMERGING DEMAND

In 2019, *Forbes* ran an article asking, “Do Women-Only Spaces Still Matter?” (Kerpen 2019). In her take on the topic, Fenson (2019) was more definite, titling her article “Why Women-Only Spaces Still Matter.” Similar pieces have appeared everywhere from the *Times of India* (Kohli 2019) to *Apolitical* (Fatima 2019) and CNBC (Hochman 2018). They were written in response to the increase in companies, ranging from parks to gyms to co-working groups, that offer services only for people who identify as women.

The growing prominence of gender-segregated spaces raises a number of important questions, most notably, “Do they succeed in supporting women?” Increasingly, this question is being asked in a sector that is often underrated as a catalyst for women’s mobility and economic participation: transportation.

In 2018, the International Finance Corporation (IFC) combined data from Uber with surveys of over 11,000 male and female drivers and riders across six countries: the Arab Republic of Egypt, India, Indonesia, Mexico, South Africa, and the United Kingdom. The resulting report, *Driving toward Equality: Women, Ride-Hailing, and the Sharing Economy* (IFC 2018), represented the first global study on gender and ride-hailing. It found that women have markedly different usage patterns and preferences from men. As drivers, women face unique barriers to entry, adopt different driving patterns, and prioritize different benefits. As riders, they have distinct product preferences, take more frequent trips, and travel for a greater variety of purposes than men do. In both cases, safety and security remain at the forefront of whether and how women choose to travel and work.

Within the report findings, one set of responses stood out: just under 20 percent of women riders said the lack of women drivers limits the number of trips they take, and 44 percent said they would be more likely to use the service if they had the option of selecting a woman driver. Although there were some variations in responses across the six countries, the overall pattern of demand remained consistent: often, women riders wanted to be driven by female drivers. Specifically:

“Seventeen percent of female riders surveyed say that not having a woman driver limited their use of the service—ranging from just 4 percent in Egypt to 31 percent in South Africa. These women say they would take an average of 7.6 more trips a month—an increase of 69 percent—if guaranteed a woman driver.” (IFC 2018, 52)

Demand can be higher in different contexts: 90 percent of women riders on the Sri Lanka platform PickMe reported wanting the option of selecting a woman driver; of those, 25 percent reported a willingness to pay higher prices to do so (page 53) (IFC Forthcoming B).

These findings reflect a wider trend. Gender-segregated transport (GST) is valued not just by riders but also by women drivers, who are widely underrepresented in the transport sector. For instance, data from Uber’s pilot of its “Women Rider Preference” in Brazil found that more than half of women who used the feature drove more overall and during the night, when women are least likely to be on the road. (see page 58).

Further, women’s continued interest in GST is revealed not just by survey results but by the prevalence of companies that have adopted models that permit only



To date, analysis of GST has focused almost exclusively on mass transit models such as trains or buses, with limited reference to the increasing prevalence of segregated ride-hailing or other individual transport services. This paper seeks to fill that gap by capturing insights from existing studies on mass transit and adding new findings, with a focus on ride-hailing.

women drivers, only women riders, or both, most of them established since 2015. The researchers for this report conducted interviews with more than 30 companies that provide GST services; that does not represent a comprehensive list of all companies globally. Nor is GST purely in the purview of niche or small transport providers. In China and Latin America, Didi Chuxing and 99 have begun automatically matching women drivers and riders under certain circumstances (page 61). In Saudi Arabia and Brazil, Uber launched a “Women Rider Preference” service, which allows women drivers to opt in to exclusively serving women passengers (page 58). In South Africa, Bolt is partnering with Green Cab (page 54) to explore whether women-provided services attract more women to the sector.

WHY THIS PAPER

GST increasingly represents a mainstream offering; yet, it also remains heavily debated both in terms of its benefits to women and its efficacy within broader transport systems. Proponents claim that it helps meet women’s urgent needs for safe transportation—one of the biggest barriers to women’s economic participation—and represents an important step forward for women whose movement or job prospects are constrained. Critics claim that existing models have been met with varying degrees of commercial success and that the approach risks reinforcing social norms that restrict women’s freedom and mobility.

To date, analysis of GST has focused almost exclusively on mass transit models such as trains or buses, with limited reference to the increasing prevalence of segregated ride-hailing or other individual transport services, such as taxis or chauffeur services. This paper seeks to fill that gap by capturing insights from existing studies on mass transit and adding new findings on passenger and logistics services, with a focus on ride-hailing. It does not seek to advocate for or against GST but rather to capture emerging debates, as well as to highlight findings around the variety of existing models currently operating under the broad umbrella of GST, with particular emphasis on the unique operational challenges that companies face and responses they have adopted.

STRUCTURE AND METHODOLOGY

This paper is divided into five main sections:

- 1) ***Women and Transportation*** (page 11). This section provides a brief overview of the literature on women’s engagement with transportation as providers and users, with a focus on inclusive transportation as a catalyst for women’s rights and economic participation.
- 2) ***GST in Mass Transit*** (page 21). This section briefly reviews where and how GST has been adopted in mass transit models, focusing on the debates associated with its long-term impact on women’s mobility and safety.

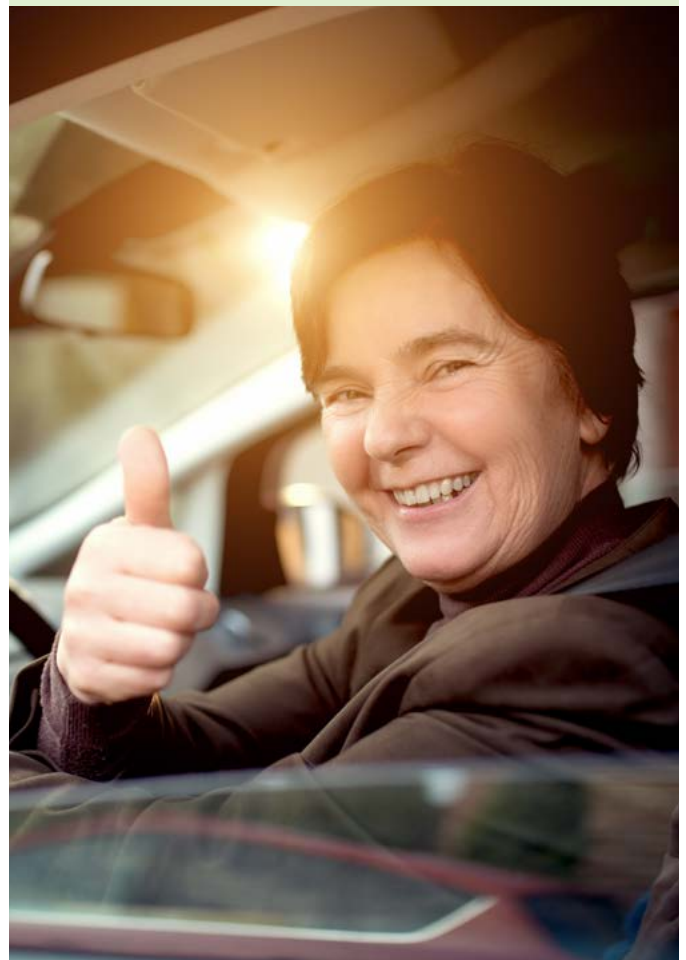
- 3) **Emerging Models of GST** (page 29). This section details the findings of interviews with over 30 companies that provide GST, with a focus on ride-hailing. It describes seven specific models identified during the research and reviews the unique operational challenges associated with GST in individual transport, as well as operational responses that companies have adopted to serve women as drivers and as riders.
- 4) **Case Studies** (page 41). This section tells the stories of companies that have adopted different variations of GST services—sometimes with success, sometimes without. This section includes case studies from models that range from ride-hailing to logistics, from motorcycles to buses, and from more than a dozen countries around the world.
- 5) **Revisiting the Debate** (page 67). This section reviews the development impact of GST in emerging models, revisiting two questions: whether it supports women’s mobility and whether it supports women’s increased economic participation as drivers.

The first two sections draw on a literature review of existing research on women and transportation. For the second two sections, which focus explicitly on GST in ride-hailing and other forms of individual transport, researchers conducted interviews with more than 30 ride-hailing companies as well as global experts on inclusive transportation.

Few quantitative evaluations of GST in individual transportation have been conducted; however, the discussion paper draws on data from two sources, when available: previously unpublished data from companies interviewed for this report and survey data from IFC 2018, which captures perception and use data around women’s interest in women-provided transportation.

Defining gender-segregated transport

Given the number of differences among operating models, there is no single commonly accepted definition of gender-segregated transport. This paper takes a broad approach, analyzing services in which only women are permitted as drivers, only women are permitted as passengers, or both. For the different models identified in this research, see page 3.





1. Women and Transportation

Inclusive transportation is one of the key catalysts for women's economic participation, enabling access to jobs and entrepreneurial opportunities. It is also an essential element of ensuring the right of freedom of movement. However, too often women are held back by transport that is unaffordable, inaccessible, or unsafe. This section outlines how transport can support gender equality, how women's use of transportation differs from men's as both providers and users, and what gaps women face in terms of safety, access, and employment. Finally, it highlights early research on women in ride-hailing and outlines how new models either reflect or alter established patterns of women's engagement with transportation.

ECONOMIC IMPACT OF WOMEN'S TRANSPORT EXCLUSION

Gaps in women's transport have large-scale economic implications. The World Bank has noted that "poor urban transport design has a disproportionately negative effect on women, preventing them from accessing jobs, schools and health centers" (Wellenstein and Gill 2019). Among the most notable of these impacts is reduced involvement in the labor force. The International Labour Organization (ILO 2017) has noted, "Limited access to safe transportation is the greatest challenge to participation that women face in developing countries, reducing their [labor force] participation probability by 15.5 percentage points." For example, in Jordan, 47 percent of women reported they have refused a job because of lack of access to transportation (Aloul, Naffa, and Mansour 2018). Another study in Jordan noted that transportation played a disproportionately high role in keeping women with limited education from the labor market (Kasoolu and others 2019).

When transport does not keep women from work entirely, it often limits their options to the closest or safest choices. As World Bank transport specialist Nato Kurshitashvili notes, "The unquantified economic impact arising from the trips women cannot take would be enormous."

- In Buenos Aires, men's commuting patterns gave them access to 80 percent more jobs than women (Quiros, Mehndiratta, and Ochoa 2014).

"Mobility is often the first mile in a long road towards realizing women's economic emancipation" (Chughtai 2019).

"The unquantified economic impact arising from the trips women cannot take would be enormous."

—Nato Kurshitashvili,
World Bank transport specialist

- In Mexico, “employers also used issues of ‘security’ to deny promoting women” (Graglia 2014, 393).
- In Bangladesh, only 35 percent of working women travel outside of their community for their jobs, compared with 56 percent for men, and only 3 percent take buses, compared with 8 percent for men. This difference reduces women’s access to employment opportunities (Kotikula, Hill, and Raza 2019; World Bank 2019a).
- In Sri Lanka, a World Bank study found “constraints exist on a continuum from, for example, the most conservative preferences that women’s paid work (if any) be limited to the physical homestead environs (such as through petty trade or small enterprise work), to preferences for shorter commutes, to restrictions on or lack of support for long-distance commuting and domestic or overseas migration” (Solotaroff, Joseph, and Kuriakose 2017, 20).
- In Delhi, a study on college choice for female students found that “women are willing to choose a college that is in the bottom half of the quality distribution over a college in the top 20% for a route that is perceived to be safer” (Borker 2018).

Opening women’s access to transportation could be a catalyst for economic and social development. Doing so will require addressing transportation design, as well as challenges in security, affordability, and accessibility.

WOMEN AS TRANSPORT USERS

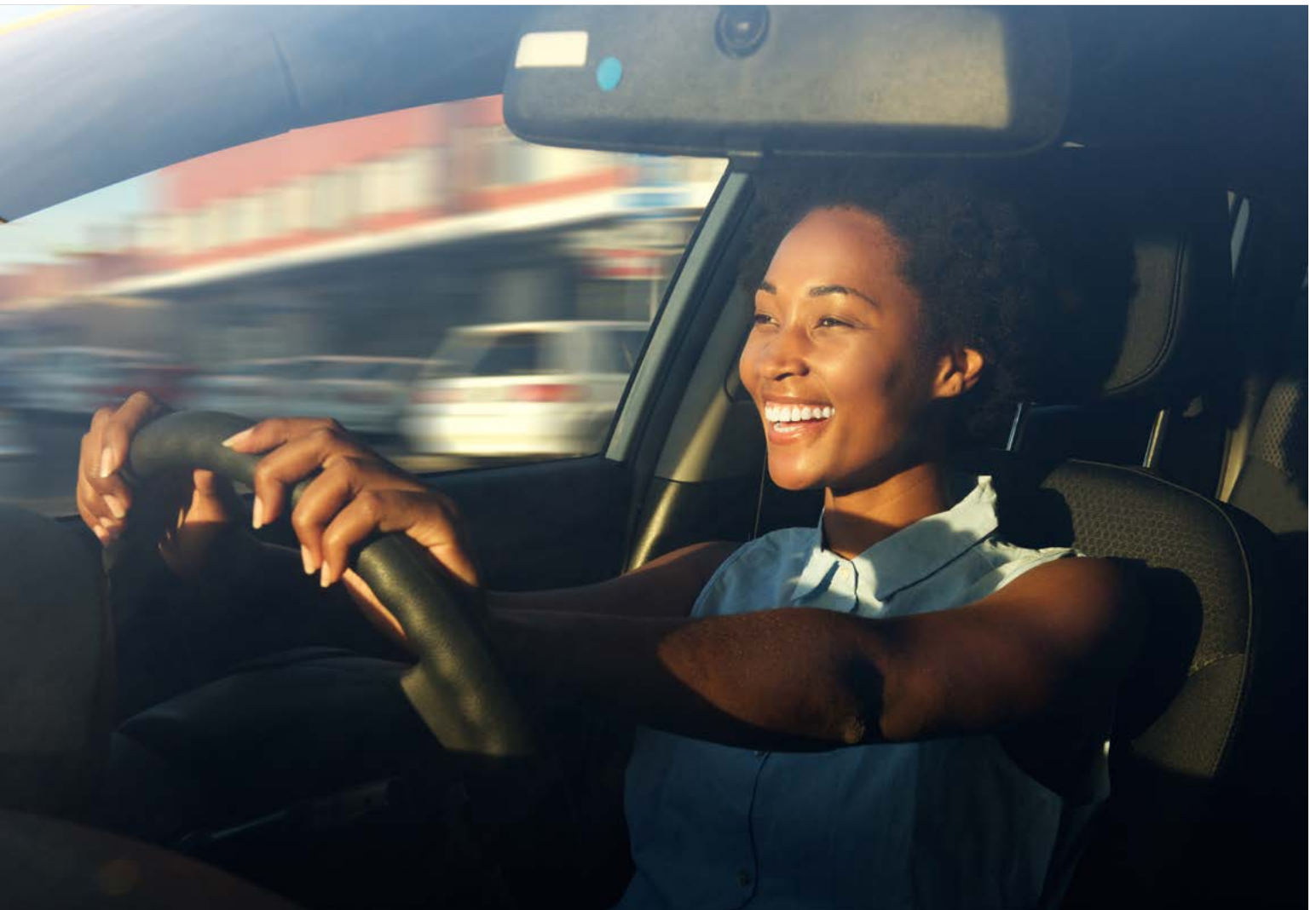
Women have different transport preferences and usage patterns than men. Key gender differences in transport use include these:

- **Trip purpose.** Women take more nonwork trips than men do, often traveling with children, a situation which reflects their greater roles in caregiving and household management (Crane 2007; Sánchez de Madariaga 2013). Gaps, steps, waiting areas, and lack of ramps in transit sites represent significant challenges for women who are often carrying grocery bags or accompanying children.
- **Transport mode.** Women are more likely than men to use public transportation as well as slower forms of transit. The combination of social constraints and low economic resources results in lower access to private and intermediary means of transportation (Babinard 2011). In the United States, for example, women represent 64 percent of the people riding Philadelphia’s subways and buses, 62 percent in the Chicago Transit Authority, and 60 percent of transit in Boston, New York, and Washington, D.C. (Goodyear 2015).
- **Trip length, frequency, and cost.** Women often travel more frequently than men do on shorter trips, driving up their total costs and resulting in increased price sensitivity (Allen 2018). Transport costs for women are driven by their increased number of trips and at times by the need to move across multiple forms of transit, necessitating multiple tickets. “The life stages of women affect their mobility patterns and behaviors far stronger than for men,” noted international transportation expert Heather Allen.

- **Trip timing.** Because women are more likely to travel for reasons other than commuting, the traditional “rush hour” ramp up of public transport vehicles may not effectively meet their needs, resulting in increased wait times (Duchène 2011).

Ammar A. Malik, director of research at Evidence for Policy Design at the Harvard Kennedy School, offers a three-tier framework to understand how transport provision affects the physical mobility of women: the level of the individual, the level of the neighborhood or city, and the level of society. Malik argues that at all three levels specific factors make women’s mobility

more difficult than men’s. He explains further: “For example, at an individual level women are less likely to own a vehicle. At a neighborhood level, on a rainy day some cities have ankle length water on the streets. While men can roll up their pants and walk right through the water, in some South Asian cultures it may not be considered appropriate for women to do so. At a societal level despite the fact that our economies are growing, social norms about child-care responsibilities and what is the proper role for a woman in society restricts them from accessing jobs.”



WOMEN AS TRANSPORT PROVIDERS

Karla González Carvajal and Muneza Mehmood Alam of the World Bank Group note that “The transport industry remains heavily male-dominated, which only makes it harder for women service users to make themselves heard, and limits incentives for the sector to become more inclusive” (Carvajal and Alam 2018). Comprehensive figures are difficult to obtain because official data typically categorize employees under the broad category of “transport and communications” (Turnbull 2013). Available surveys indicate that women remain underrepresented both as direct employees of transport systems and as other providers, such as drivers and truckers. In the United States, women accounted for just under 15 percent of transportation occupations in 2017 (U.S. Census Bureau 2017). Women represent only 22 percent of the European Union transport workforce, and even less—below 5 percent—for some occupations, such as drivers (Cook and others 2018). Data for emerging markets are limited.

Legal, structural, and social barriers contribute to women’s low representation in the sector. The World Bank (2019a) “Women, Business and the Law” report notes that transport is among the sectors most affected by differences in law for men and women: 21 economies place job restrictions on women in transport and 29 restrict women from working night hours, limiting the shifts they can take. Legal limitations are reinforced by negative perceptions of the industry and limited career development opportunities (Godfrey and Bertini 2019). One analysis by the International Association of Public Transport (Suciu, Sadoux, and Gonzalez 2010, 36) breaks down women’s underrepresentation in transport into five interrelated causes:

- “Lack of access to education, training, and information.
- Work organization: (rolling) shift work, early-morning or late-night working hours, split shifts, weekend work, combined with a lack of safe transport to and from work.
- Work environment: lack of workplace and policy adjustments, lack of facilities (including toilets), inappropriate uniforms.
- Gender stereotyping and sex discrimination: gender-based occupational segregation underpinned by the myth that women are unable or physically unfit to perform certain duties, tasks, or roles.
- Violence and harassment against women: urban public transport workers exposed to physical and nonphysical violence because of the jobs they do.”

As a result, “most departures in the transport industry appear to occur within the first five years of employment” (Baruah 2019, 32).

Further, a report by the International Transport Workers’ Federation (Wright 2019) highlights how the future of work in transport will affect women differently than men. It notes that women accounted for three-quarters of the job losses in transport between 2008 and 2011. For example, while automation can bolster improved working conditions, it can also lead to job losses in areas in which women are concentrated, such what happens when self-serve ticket machines replace ticket vendors, particularly in the informal sector. Women also may be less likely to gain access to the training and upskilling necessary to take advantage of new or improved roles created by technology in the sector.

“...women’s needs as transport users are often prioritised over discussion of women as transport workers.”

— Tessa Wright (2019, 31)



Women’s experiences and earnings in ride-hailing differ from men as well. An Uber-Stanford study (Cook and others 2018) on drivers in Chicago found a 7 percent “gender pay gap” in earnings due to the times of day women choose to drive as well as their reduced speed, resulting in fewer paying rides. Issues of women in ride-hailing are discussed further in a subsequent section.

SAFETY AND SECURITY

Challenges related to safety and security are global and are present across all forms of transport. Safety and security concerns keep women from engaging as providers and users, with gender-based violence imposing disproportionate constraints on women’s mobility and use of transport.

Desolate bus stops and train cars, dimly lit park-and-ride lots and parking structures, and overcrowded transit vehicles represent stressful settings for many women, who often feel compelled to change their transportation modes and travel patterns in order to avoid them (Loukaitou-Sideris 2009).

- In New York City, a survey found that over a third of women do not feel safe on public transport late at night and that the shift to taxis or for-hire vehicles during these times results in a “pink tax” of US\$26 to US\$50 per month for increased safety (Kaufman, Polack, and Campbell 2018).
- In Brazil, ActionAid’s (2014) Safe City for Women survey revealed that 86 percent of women had been harassed in a public space and 44 percent on public transport. The situation was most severe in the country’s biggest cities, where 100 percent of women in São Paulo and 66 percent in Rio suffered harassment on public transport.

- In Mexico City, according to the national violence against women survey (carried out by the National Institute for Statistics and Geography), the forms of violence that were most frequently reported were offensive or sexualized comments, unwanted touching and groping, and fear of being assaulted or abused. According to the 2016 National Survey of Victimization and Perceptions of Safety, nearly 88 percent of women aged 18 years and over feel unsafe in public transport, and approximately 80 percent feel unsafe on the streets in Mexico City (UN Women 2017).
- In Lima, a World Bank study revealed similar findings, noting that while for men in the Peruvian capital, speed was a decisive factor in choice of transport, for women personal security and protection from harassment mattered most (Gómez 2000).
- In Egypt, a 2014 study by HarassMap found that 95 percent of women surveyed in Greater Cairo experienced sexual harassment (Fahmy and others 2014).

Sexual harassment also extends to women service providers, leading to their wide underrepresentation in the sector and reinforcing the concept of transportation as a male-dominated space. According to a 2017 survey by the European Transport Workers' Federation, 63 percent of respondents had faced violence. Of these, 49 percent faced violence from customers, 22 percent from colleagues, and 17 percent from managers or supervisors. Among the women who reported an incident, 80 percent did not believe that their complaint had negative consequences for the perpetrator or had made the workplace safer, a serious concern for women who seek to develop careers in the transport sector (Bakran 2018).

WOMEN AND RIDE-HAILING

Most studies on women and transport have focused on mass transport. Individual transport, and particularly emerging models such as ride-hailing, represent a different set of dynamics for women both as drivers and as riders. IFC's (2018) study *Driving toward Equality: Women, Ride-Hailing, and the Sharing Economy* leveraged data from Uber and surveys of more than 11,000 drivers and riders across six countries to offer early insights into where ride-hailing specifically reflects or changes existing dynamics around women and transport. The following section adopts key findings from that report, first considering findings related to women as drivers, then women as riders, and then cross-cutting factors such as safety and security.

Women as drivers

- ***Women identify the ability to work when they want to as the key benefit of using ride-hailing apps.*** Across the six markets studied, three-quarters of the women drivers surveyed rank it among their top three benefits. It helps them juggle other commitments. For example, 91 percent of mothers driving with the Uber app are also the primary caregivers for their children.
- ***Ride-hailing apps reduce barriers to entry for women to work as drivers.*** Low barriers to entry make it relatively easy for women to enter an occupation few have traditionally pursued. However, the proportion of women drivers remains low, reflecting other barriers such as the regulatory requirement for a commercial license in some markets, social mores, and low rates of financial and digital inclusion.
- ***Women tend to drive more selectively than men.*** On average, they drive fewer hours than men and are less likely to drive at night or sign in daily to the

24 percent of women say that ride-hailing increases their sense of independence.

(IFC 2018)

app. By reducing their hours and not driving at times of peak demand, women could be limiting their earnings or ability to earn volume-based incentives. Still, the women surveyed are just as likely as their male peers to turn a robust profit from driving, despite being less likely to own their own vehicle outright.

- **Women drivers report a higher income boost than men do.** The average earnings achieved by all women who drive using the Uber app increased across each market studied, ranging from 11 percent in Mexico to 29 percent in Egypt. The premium women earn over men likely reflects the women's lower previous income and employment status.
- **Some women drivers use ride-hailing to support other entrepreneurial activities.** Fifteen percent of women drivers run businesses separate from their ride-hailing activities—broadly the same rate as men (12 percent). Some of these entrepreneurs use income to smooth the cash flow of their operations and to build their credit profiles, while others recruit riders as potential advisers, investors, and customers.



- **Social norms limit the extent to which women participate in ride-hailing as drivers.** Overall, 11 percent of women drivers surveyed say their family or friends disapproved of their decision to sign up, but attitudes toward women drivers vary widely by market. More than half of current male drivers surveyed in Egypt and Indonesia would be unhappy if a woman in their family wanted to sign up; in contrast, more than half of men say they would be happy in India, Mexico, and the United Kingdom.
- **Women may also face discrimination once on the road.** Of women drivers surveyed, 14 percent believe some riders have canceled on them because of their gender, a proportion that rises to about a quarter in Egypt and Indonesia. The extent of these restrictive norms reveals both the scope of the challenge of recruiting women into ride-hailing and the pioneering nature of the women who have chosen to drive.

Women as riders

- **Ride-hailing helps women meet complex transportation needs.** Women represent a large portion of the existing user base globally, and the majority in Indonesia. Women's ride-hailing usage patterns mirror their diverse transportation needs: they tend to make shorter, more frequent, and more types of trips compared with men. Women are more likely than men to use ride-hailing to go shopping, travel to health services, and visit relatives.
- **Ride-hailing helps mothers manage the complexity of traveling with children.** Thirty percent of women, compared with 22 percent of men, travel with children. Almost two in five mothers surveyed strongly believe that ride-hailing helps them move around with their children.

63 percent of respondents had faced violence. Of these, 49 percent faced violence from customers, 22 percent from colleagues, and 17 percent from managers or supervisors.

—According to a 2017 survey by the European Transport Workers' Federation

- **Ride-hailing increases women's mobility and sense of independence as riders.** Almost a quarter of women surveyed say that ride-hailing increases their sense of independence—a figure which climbs to over a third of women in India and South Africa. Similarly, 24 percent of women surveyed across the six markets identify getting to places not served by public transport as a major benefit of ride-hailing. Going out at night is the third most popular use of ride-hailing among women globally, and 7 percent of women say they were previously unable to make these trips.
- **Cost is a key consideration for women.** They tend to spend a higher proportion of disposable income than men on meeting travel needs, especially in emerging markets. Information about the price they will pay when booking is identified as the biggest benefit of using the Uber app by the women riders surveyed—especially in Egypt and India—while men primarily cite the ease of booking through the app.

- **Lower-cost ride-sharing models could help more women access ride-hailing.** In locations with multiple options, women are more likely than men to choose lower-cost trips such as ride-sharing (UberPOOL) or motorcycle (UberMOTO)—except where security concerns or social mores override the cost benefits.



Drivers and riders

- **To attract women as riders and drivers, the ride-hailing industry needs to continue to enhance security features and minimize perceived threats.** Personal security is a determining factor in women's choice of transportation options. They are more likely than men to be attracted to ride-hailing because of security features such as the data trail that the app creates for every ride and the ability to receive information about their driver in advance. For women riders, these features may increase not only their own sense of security but also that of their family members.
- **Security emerges as a key barrier to the recruitment and retention of women drivers.** Sixty-four percent of women drivers surveyed cite security concerns as a reason more women do not sign up to become drivers, and 26 percent cite security concerns as a reason they do not drive more. Financial and digital exclusions remain barriers to women's participation in ride-hailing and in the sharing economy more broadly.
- **Financial exclusion means women are less likely to have a bank account and own assets that enable participation in the sharing economy.** Women surveyed across the six countries studied are less likely than men to own the car they drive. Overall, the proportion of women surveyed who identify getting the money to buy or access a vehicle as the biggest sign-up barrier they face ranged from 17 percent in Egypt to 40 percent in South Africa.
- **Seventeen percent of women riders surveyed identify the lack of women drivers as a reason not to use the Uber app more often.** Attracting more women drivers could therefore encourage more women to ride, thereby further increasing demand for women drivers and creating a virtuous cycle.



2. Gender-Segregated Transport in Mass Transit

GST remains a heavily debated response to women’s transportation challenges. Even proponents of GST tend to see it not as a long-term solution to inclusive transportation for women, but rather as one step toward a stage at which GST is no longer needed. Heather Allen, an international expert on transportation issues, articulated a common position: “If the provision of segregated mass transit helps women access the education and employment opportunities that otherwise they wouldn’t have, there is a rationale to it. But in no case do I see it in mass transit as being ‘the’ solution.”

GST models have been adopted across geographies and cultural contexts, and there is evidence they can serve to improve mobility for women who might not otherwise be able to move freely. Yet, opponents point out that GST may lead to unintended side effects, including inefficiencies in transport provision and the reinforcement of restrictive social norms. This section reviews the debates related to GST in mass transit in terms of demand, its implications for women’s mobility, impacts on efficient transport planning, and emerging policy debates. The following section applies these debates and shares new research on individual transportation, with a focus on ride-hailing.

DEMAND

One argument in favor of GST services notes that demand for it among riders has remained consistent across diverse geographies and cultural contexts. For a snapshot of select examples of how GST has been adopted in mass transit, please see page 25. When women in Afghanistan were asked to name their top requests for public transport, “availability of transport reserved for female passengers” was one of the top priorities in each of the five cities surveyed, in proportions ranging from 45 percent to 84 percent of respondents (IFC Forthcoming A). In Mexico, surveys found similarly high demand, again strongly linked with concerns around safety and security:

“During a public opinion survey, asking women if they feel safe while traveling, more than half (66%) of the women surveyed reported no, claiming that they would prefer women-only transportation because they were too afraid to travel alongside men. Among the 44% who did

“Whether gender-segregated transport is going to deal with what are more fundamental societal issues, I think the jury is still out on that one.”

—Rehana Moosajee, founder of The Barefoot Facilitator and former member of the Mayoral Committee—Transport, city of Johannesburg

not unwaveringly agree with this statement, 48% made a special notation on the side of the survey saying that they disagreed only because they felt that women-only buses and subway cars in particular were not well guarded. That is, they believe women-only transit to be safer, but only if the men were forced to respect it” (Graglia 2014, 399).

The quotation sheds light on the context of GST: it is used by women as a means of avoiding sexual harassment or attacks. This implies that if safety and security were enforced across the transport system, demand for GST would drop substantially.

Regardless of women’s motivation, evidence from Brazil shows that a substantial percentage of them would not only prefer GST but would be willing to pay higher fares to obtain it. Researchers asked 300 users of the local Supervia railway system to test an app which allowed them to choose to pay more to select a women-only car. Results showed that using the app, 70 percent of women would select a women-only carriage at no additional cost, and a third of female riders would be willing to pay more to travel in the reserved space. The same study identified a 34 percent to 55 percent lower occurrence of harassment in cars where gender segregation was respected (Kondylis and others 2020).

MOBILITY

Perhaps the most disputed aspect of GST is the degree to which it increases women’s overall mobility rather than reinforcing existing restrictions. The analysis of women-only transportation in Mexico City cited previously showed that “women who had access to their own transportation, be it buses, subway cars, or women-driven taxis, were far more likely to increase their mobility than women who did not” (Graglia

“Unfortunately there are safeguards that we have to take. We have seen way too much violence against women. I think that is the bigger contention than whether this is taking us a step back.”

—Eugenia Podestá, senior director of economic empowerment and entrepreneurship, Vital Voices

2014, 401). GST may be of particular value to women who face strong social norms against any independent travel. In those instances, “the suggestion that women can move in groups offers them the opportunity to move securely without the presence of a male family member” (Babinard 2011). Certainly, in some instances women prefer the travel environment of segregated transport. As one commuter, in a blog post, described her use of the New Delhi metro, “The body language of women in this car feels different. They look carefree. Some listen to music on their headphones or read a book or newspaper, rarely looking up. They don’t have to worry about being groped or stared at by creepy men” (Shah 2016).

Even when women may benefit from greater mobility in the short term, there is an active debate as to the mid- to long-term effects of GST. “I see the human impact, where women are more comfortable in these segregated spaces than they are in mixed-gender spaces. But from a policy perspective, it doesn’t solve the larger problem women are facing,” said World

Bank economist Muneeza Mehmood Alam. Too often, she added, implementers consider gender segregation as a single solution without addressing the core issues that create unsafe conditions for women in public places. World Bank gender specialist Karla Dominguez Gonzalez echoed this reservation: “I don’t know of any country where GST is happening but there are [also] complementary steps to change social norms.”

Opponents argue that GST will produce a gender-segregated city as women end up with fewer or more restrictive means of transportation. For instance, women who opt not to use segregated models may face immediate repercussions through social judgment or increased discomfort or safety risk in mixed environments. In the words of one commenter (Monroe 2017), the question, “‘What were you wearing?’ will be replaced by the admonition ‘Were you sitting in the women’s carriage?’” Indeed, the previously cited study of the Rio Supervia (Kondylis and others 2020) found that women were willing to pay for the segregated service, but that “half of the

“Sex segregation should not be the default response to harassment in public transport, as it does not foster behavioral change.”

—Sonal Shah, transport specialist (Shah 2019, 31)

men agree that ‘women who chose to ride in a public space are more sexually open’ and 20 to 24 percent agree that ‘if a woman is harassed in public space, it is partially her fault; she could have chosen the reserved space.’” Proposals to introduce segregated carriages in the London metro system were beat back largely because of similar protests from feminist groups (BBC 2017).



EFFICIENCY

Another argument made against GST addresses the difficulties of running a segregated system efficiently, challenges that can result in underuse, overcrowding, or nonenforcement of separated spaces.

Variations in demand can lead to underusage or overcrowding. A study of pink buses introduced in Lahore, Pakistan, in 2012 found that the need for financial subsidies escalated over time because of the low ridership (Daha 2014). More common are reports of overcrowding. A commuter in the Indian state of Kerala observed that, although nearly the same number of men and women travel in buses during nonpeak hours, women are often the ones who end up without a seat—because a small number of seats are reserved for women, and all the remaining “general” seats are occupied by men (Navya P. K. 2017). In Mumbai, the Ladies Special was the first women’s-only train in the world, initially with service just twice a day and later extending to eight runs during peak hours (Bhatt 2018). Although the service has transported more than a million women in one of the busiest suburban lines globally (Bhatt 2018), it still underserves the needs of Mumbai’s female commuters. A survey conducted by the Western Indian Railways in 2018 revealed that commuters wanted more such trains because the existing ones were overcrowded (Ahmed 2018; Bhatt 2018) and in 2018 Bangaluru extended the hours of its women-only carriages (*Times of India* 2018)

Overcrowding can also decrease the efficiency of GST if men enter spaces reserved for women, as sometimes this occurs during peak commuting times. Enforcement is complicated on systems whose rules permit access to other groups or segregate spaces only certain times of the day. In Toyko, women-only cars were introduced in May 2005 by nine private railways. Each of these trains provides a car reserved for women until about 9:30 p.m. Some of the services also allow access to young boys and individuals with disabilities and

“It is comforting to know that the entire train is for us. We can get into any compartment without worrying about space.”

—A commuter on the Mumbai Ladies Special
(Karangutkar 2018)

caregivers who are both men and women (Japan Experience 2018). In Mexico City, spaces on buses are reserved for women and children as well as the elderly or disabled.

The challenges have led several cities to halt efforts to provide GST. Jakarta, for example, introduced women-only commuter trains in 2012 and removed them six months later because dedicated trains were popular during peak commuting periods but not throughout the day (*Asia News* 2013). The city continues to provide women-only seats within the city-owned TransJakarta buses. Women-only passenger cars in Seoul were introduced three times without success, in 1992, 2007, and 2011. In 1992 the service was ended because of lack of enforcement. Efforts to offer the cars in 2007 and 2011 were dropped because of opposition to the special cars, including claims of “reverse discrimination.” The Daegu Metropolitan Transit Corporation also tried to implement the policy in 2013, but it faced similar public resistance (Jang 2016).

POLICY AND REGULATION

Few policy decisions speak directly to the legality or illegality of gender-segregated services. However, in the United Kingdom one gender-segregated service for women was suspended after local authorities deemed it to be discriminatory (page 55). In 2006 Rio de Janeiro mandated the provision of women-exclusive carriages

A map of Latin America is shown in white against a light blue background. Two curved arrows point from text boxes to Mexico and Brazil. The text boxes contain information about gender segregation in mass transit in these countries.

Select Adoptions of Gender Segregation in Mass Transit

LATIN AMERICA

Mexico: Mexico City boasts Latin America's largest metro system, and since 2008 a number of carriages on metro trains and buses have been specifically allocated for women and children. Further, many stations have an area that is monitored by security personnel to ensure that only women enter the space (Davison 2019). The city has committed to reviewing the effectiveness of segregation policies in its 2019 gender and mobility plan (City of Mexico 2019).

Brazil: In 1995, São Paulo's metro system became the first to introduce a women-specific carriage in its trains within Brazil, but low enforcement led to the feature being pulled. Following reports that documented high rates of sexual harassment and assaults, it was reintroduced in 2014 through local legislation that mandated the inclusion of at least one dedicated carriage for women per train during peak commuting hours (Constantine 2014).

Select Adoptions of Gender Segregation in Mass Transit

ASIA

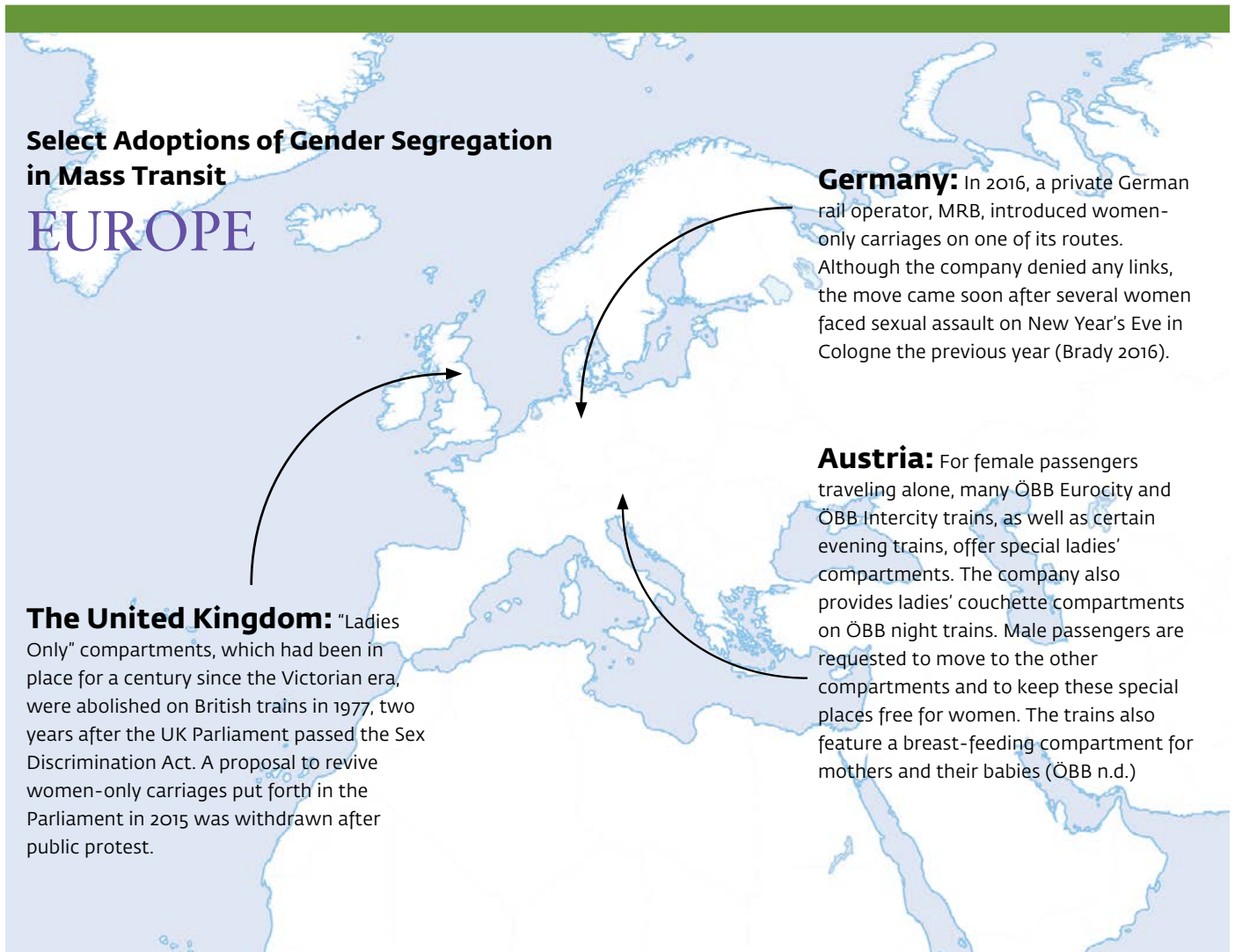
China: The cities of Guangzhou and Shenzhen adopted women-only carriages in the city metro, but enforcement of the spaces has been limited (Wee and Marchi 2018; Zhen 2017).

Japan: Women-only cars were introduced in May 2005 in Tokyo by nine private railways following the publication of a survey by the Tokyo police that revealed the prevalence of incidents of “chikan” (being touched without consent). Each of these trains provide a car reserved for women until about 9:30 p.m. Some of them also allow young boys and individuals with disabilities and caregivers, both men and women (Japan Experience 2018).

Thailand: Since 2014, the State Railway of Thailand has included women-only carriages for three of Thailand’s most important train routes. The women-only carriages are lilac with dark pink curtains (rather than the usual light blue) and are available to women during the day or night.

India: Mumbai launched its women-only trains in 1992, operating on three of its most popular routes. Initially the trains were offered twice a day, but the operations were later extended to eight times a day, transporting over a million women. However, according to a survey conducted by Western Indian Railways in 2018, the service is still found to underserve the needs of female riders (Ahmed 2018). Nationally, the Indian Motor Vehicles Act has stipulated that a certain percentage of seats on buses must be reserved for women (Mohapatra 2017).

Indonesia: Jakarta introduced women-only commuter trains in 2012 and in 2013 but then scrapped the system and reconverted the trains. Although the trains were popular with women during rush hours, mixed trains were found to be packed at all times. With overcrowding being one of the major issues cited by railway operators, women-only trains were taken out of service (Asia News 2013). However, Indonesia’s public, city-owned TransJakarta buses still provide separate seats for women.



during peak hours on weekdays, and the city of São Paulo followed suit in 2014. As a whole, definitive stances for or against segregated services remain the exception rather than the rule.

Uncertain legal status has also hampered authorities attempting to apply provisions for existing services. In the case of São Paulo, gaps in clarity weakened the law; specifically, peak hours were not explicitly defined and no provisions were made for men entering the carriages (Curzi 2017; Sanghani 2015). Similarly, in China the cities of Guangzhou and Shenzhen have reserved metro cars for women but have found it difficult to enforce rules on access to the space. In a *New York Times* article on segregation in the Guangzhou system, a Metro representative noted that stopping the behavior of male riders has been

challenging because the cars were labeled “for women” but not “only for women,” giving no legal basis to segregate passengers by force (Wee and Marchi 2018). Shenzhen city, which reserved the first and last carriages on the metro for women around the same time, faced the same issue (Zhen 2017). Other cities have more active enforcement: In Mumbai, inspectors are tasked with monitoring compliance and guiding men out of segregated carriages. They also have the ability to punish offenders. Traveling in female compartments is punishable under the Indian Railways Act with eviction from the train, a monetary penalty, and/or forfeiture of the pass or ticket. Similar measures are in place in Dubai, where men found in the dedicated women-only carriages at the end of each train face a monetary fine (Jinman 2015; the *National* 2019).



3. Operational Challenges and Solutions in Emerging Models of GST

To date, little analysis has addressed gender segregation in individual transport models such as taxis, logistics services, or, notably, emerging models such as ride-hailing. Research for this brief, which included interviews with more than 30 companies, identified seven models, ranging from those that exclusively match women drivers and riders to those that provided “opt-in” features to those that automatically match women riders and drivers. Companies leverage a wide variety of means of transport, from tuk-tuks and motorcycles to cars.

GST in ride-hailing introduces new questions around operational models, challenges, and responses as well as reopening the debate around whether segregated options promote inclusive transport for women. In GST, companies face unique or heightened challenges in terms of (a) the low availability of women drivers, (b) highly dynamic demand, (c) the potential for increased wait times or reduced driver incomes, (d) the identification of user gender, and, as a result of these factors, (e) difficulty in reaching scale and breakeven. Many companies have responded with one or more of the following: increasing prices, limiting geographical coverage or hours of operation, focusing on specific customer groups, focusing on increased safety and security features, investing in training and recruiting, and supporting vehicle financing. Case studies on select companies in the following section tell stories of how each of the operational models have evolved and how the companies have opted to respond to operational challenges.

GST IN RIDE-HAILING

Operational models in ride-hailing

This research identified seven delivery models for GST: six focused on passenger transport and the seventh on logistics and courier services. The first of these, “women-exclusive” services, represents what may be most commonly understood to be GST—namely, when the platform registers exclusively women drivers, who are then matched exclusively with women riders. However, the others, outlined in table 3.1, have adopted variations providing drivers, riders, or both different levels of ability to opt in.

GST in ride-hailing introduces new questions around operational models, challenges, and responses as well as reopening the debate around whether segregated options promote inclusive transport for women.

Table 3.1 Operational models for gender-segregated transport in ride-hailing

Model	Description	Indicative companies
Women-exclusive	The platform registers only women drivers, who are matched exclusively with women riders.	Lily Ride—Bangladesh (page 47) Femitaxi—Brazil An-Nisa—Kenya Fyonka—Egypt, Arab Rep. (page 45) GoPink Cabs, Meru Eve, Pink Taxi, Women’s Cabs, She Taxi (page 51), Sakha Cabs—India (page 42) Ojesy—Indonesia (page 47) ChaufHer—South Africa Rosy and Pink Cabs, Pink Ladies—UK (page 55)
Open customers	The platform registers only women drivers but enables drivers to serve both women and men riders.	Miss Taxi Ghana—Ghana Priyadarshini—India Lady Bug—Kenya Green Cab—South Africa (page 54)
Driver opt in	Women drivers may elect to serve either men or women passengers or opt in to serve only women passengers at any time; passengers are not able to opt in to choose a female or male driver.	99—Brazil (page 61) Uber’s “Women Rider Preference” feature—Saudi Arabia and Brazil (page 58)
Rider opt in	Women riders may select female drivers; drivers may not elect to serve only women passengers.	PickMe—Sri Lanka (page 53)
Algorithmic prioritization	Women drivers and passengers are automatically matched when the pairing would not increase pickup wait times; neither drivers nor riders opt in or out of the selection.	Didi Chuxing—China; 99—Brazil (page 61)
Limited clientele	The platform registers exclusively women drivers for a select group of riders, particularly children or families but also groups such as corporate clients.	Taxshe and Koala Kabs—India (page 50) Annisa Cars—United Kingdom
Delivery and logistics services	Women drivers offer delivery and logistics services, such as food delivery or in-city transport.	Ladybird Logistics—Ghana (page 63) Viira Cabs—India

The level of choice given to users and whether this choice sits with the driver, rider, or both are the key distinguishing factors among the models. After those factors, the companies featured in the study include a wide range of delivery models, from traditional cab services to ride-hailing to logistics services, as well as vehicle types, from motorcycles to tuk-tuks to cars. Although the largest group of active companies was concentrated in South Asia, GST models have increasingly been adopted globally in countries from Brazil to Kenya to Indonesia. Despite these differences, several operational challenges and solutions arose consistently across models, vehicle types, and countries of operation.

OPERATIONAL CHALLENGES

The variety of GST models reflects a range of different solutions to the increased operational challenges that women-provided transport services face over standard ride-hailing and e-logistics models. These challenges include low driver supply, highly dynamic demand, the potential for increased wait times, the potential for decreased driver income, and accurate gender identification.

LOW DRIVER SUPPLY

Although demand for women-provided transport can be strong, the supply of women drivers is limited. In the six countries captured in the *Driving toward Equality* study, IFC (2018) found women drivers represented up to 4.5 percent in Mexico but under 1 percent in Egypt and India. This lack of participation by women occurs not just in ride-hailing but in the transportation industry more broadly. Many of the companies interviewed for this paper undertook dedicated recruitment, training, and licensing programs to build the pipeline of drivers. Two companies, PickMe (page 53) and Ola, either paused or withdrew women-exclusive pilot programs specifically because of the lack of women drivers.

DYNAMIC DEMAND

Even where demand for women-provided transport services is high, it is often also highly dynamic.

For riders, this variability appears in previous research, which found that women's preference to be matched with a woman driver was highest at night, at 40 percent of respondents, followed by when traveling alone and by when traveling in a new city, respectively. A smaller percentage want the option to select a woman driver during the day during the normal course of travel (see figure 3.1). Companies interviewed for this paper that offered opt-in models reported heavier use when women were ordering transportation for children or at night, when there is an increased perception of security risks. In Kenya, riders reported switching apps at night to one which provided them the option to select a female driver (IFC 2018). Similarly, 90 percent of women users of PickMe wanted the ability to select a woman driver, but largely they wanted the option when traveling alone, at night, or with children (page 53) (IFC Forthcoming B).

Demand from drivers also varies. For instance, in Uber's "Women Rider Preference" feature in Saudi Arabia (page 58), some women use the main app during the day and switch to the Women Rider Preference feature when driving at night. Care responsibilities are also a determining factor in driver participation. "Most of our drivers are mothers and they tend to take holiday around the same time," said Sade Agboola, founder of Annisa Cars, London. In its first months of operation, Fyonka in Egypt (page 45) struggled to explain a sudden drop in drivers on the road—until its office staff discovered that school exams were approaching, and women were staying home to help their children study. Drivers returned to the road following the end of exams.

Variable demand introduces two challenges into the network. First, extremes of demand and supply tend to

be much higher for GST networks than for those that serve both men and women. For instance, although a ride-hailing network may see demand throughout the day with peaks during commuting hours or social times, a women-provided network may have very low demand during the day, with much higher demand at night. Second, the period of highest demand, evenings and nights, is also the period when women are least likely to be on the road, thus increasing the disparity between the supply of and the demand for drivers.

POTENTIAL FOR INCREASED WAIT TIMES OR REDUCED DRIVER INCOMES

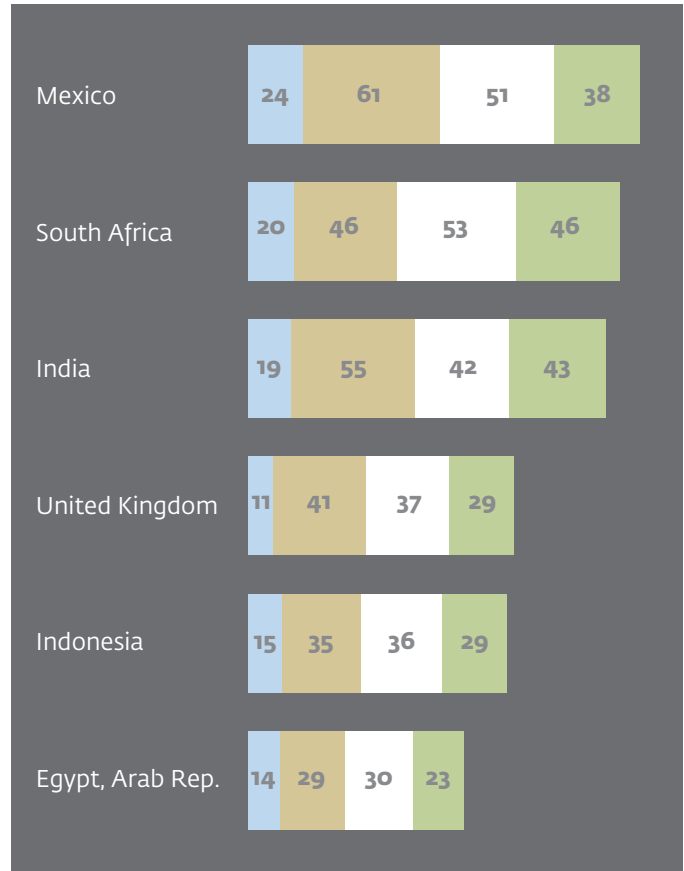
Unaddressed supply and demand disparities can increase wait times and reduce driver incomes. Because women represent a small minority of transport providers, including ride-hailing drivers, the number of drivers may not be sufficient to meet rider needs. If, as a result, wait times increase, women face reduced mobility, and they could also end up waiting in locations where they face a higher risk of the type of harassment that they are trying to avoid by using women-provided services.

Supply-demand mismatches also affect drivers. For instance, if drivers have to travel longer distances between each ride, they are likely to serve fewer customers and their total income will go down, unless they are paid on an hourly basis.

Figure 3.1 Women riders' demand for women drivers

Q: When using Uber, do/would you prefer male or women drivers in the following situations? (Women only)

Percent



Legend:
■ During the day ■ At night
■ Traveling alone ■ In a new city

SOURCE: IFC/ACCENTURE UBER RIDER SURVEY 2017.

NOTE: THE AVERAGE PROPORTION CITING "NO GENDER PREFERENCE" ACROSS ALL FOUR CATEGORIES IS ~47 PERCENT.

IDENTIFICATION OF USER GENDER

Accurate matching requires companies to be able to identify which drivers and riders are women. For drivers, this is less difficult because personal information, such as license data, is routinely collected as part of the registration and verification process. However, most companies do not routinely collect rider gender information. Depending on local privacy and data regulations, companies may opt either to ask riders to self-identify or to use photo or name-matching algorithms to automatically assign users a gender.

An-Nisa Taxi, a women-exclusive ride-hailing service in Kenya, also found that digital literacy can be a barrier. When launching the service, the team initially found many male names registering on the app and booking rides. Eventually, the team realized that men were downloading the app and booking for their family members who did not have phones or did not know how to register. That practice limited An-Nisa's ability to confirm rider identification.

Companies interviewed for this paper largely indicated that the decision whether to cancel a ride is left in the hands of users; for instance, if a man used an account not his own to request a woman driver, the driver could cancel the ride without penalty. Those companies also indicated that such incidents of misuse are low and do not represent a serious restriction on operations.

Another challenge is reflecting diverse gender identities. Most operational models assume users' gender identity matches the sex of their birth and that they have a binary identity of either male or female.¹ Someone who identifies as a woman but whose license, registered name, or physical attributes may not reflect this

identity may not be accepted by the system. The models also place the onus on individual drivers to determine whether to accept a rider's gender identity.

FUNDING, SCALE, AND PROFIT

One analysis conducted by researchers at the University of California Los Angeles determined that a "gender-based system would have to pay higher wages to recruit more women drivers...in addition, it would have to charge women lower fares as compensation for longer wait times." The study indicates that such models "could be profitable by increasing the pool of women customers" (Guo and others 2018). Companies interviewed faced decisions of whether to operate as for-profit entities, to prioritize social impact over profit, or to operate hybrid models in conjunction with foundations or nonprofit entities.

Lady Bug, an offshoot of Little Cab in Kenya, Uganda, Tanzania, and Zambia, was clear about the need to operate a for-profit company. "As much as we want to be part of the growth of women, we don't want to start something that is not profitable for them and difficult for us to sustain," said Kamal Budhabhatti, Little Cab founder. Susieben Shah, founder and chief executive officer of Priyadarshini Taxi Service in India, was similarly frank: "My priority now is to systematically approach investors. I don't want money to buy cars but to hire good talent. To have proper marketing, hire a business development person, a social media-savvy person. To expand I need good hands on deck." The impetus to reach breakeven in GST has to be considered in the wider context of ride-hailing, in which many companies are not yet profitable. Regardless, several companies cited obtaining funds as their biggest problem. Typically, for the companies interviewed, entrepreneurs bootstrapped with their own money or with that of angel investors within the

¹ The World Bank Group defines "gender identity" as "each person's deeply felt internal and individual experience of gender (e.g. of being a man, a woman, in-between, neither or something else), which may or may not correspond with the sex they were assigned at birth or the gender attributed to them by society. Note that this sense of self is not related to sexual orientation. Gender identity is internal; it is not necessarily visible to others." See World Bank 2019b.

friends and family circle. One entrepreneur explained that private venture capitalists look for scale, which can be hard to achieve without substantial upfront investment.

Other founders intentionally prioritized development impact over profit, at least as an initial motivation for entering the space. “We are not close to making profits, not even operational breakeven; we are subsidizing everyone,” confirmed Syed Saif, founder of Lily Ride bike ride-sharing service in Bangladesh. “We are doing this for a social cause. We want to do the right thing, to develop the ecosystem and take pride that in our country we are the first people to have done this thing for women.”

Hybrid and social enterprise models also have proved useful to provide training and to address the key barrier to growth, the number of women drivers on the road. Recruitment and training can represent substantial expenses, so joint models have enabled charity or development partnerships at the pipeline level while keeping the main business of driving separate. These issues will be addressed further in the next section, on operational responses.

OPERATIONAL RESPONSES

Women-provided transport companies have met increased operational complexity with one or more approaches: increasing prices, limiting geographical coverage or hours of operations, focusing on specific customer groups, focusing on increased safety and security features, increasing investment in training and recruiting, and increasing vehicle financing. Not all companies interviewed for this paper adopted each of those responses, but each approach was widespread across the models captured here.

ENABLING DRIVER OR RIDER OPT-INS

Each of the models described takes a different approach to driver and rider choice. For “women-exclusive” models, users opt in by selecting the company in the first place—in other words, by opening the app or registering to drive with that specific company. However, for drivers, the choice can be a long-term one: unless they leave the app or find another job, they only have the option of driving for women. This option may be best for women who would not otherwise drive professionally.

With opt-in models, users have more choice on when and whether to engage with the limitations. Although one Sri Lankan company, PickMe (page 53), piloted an option in which riders but not drivers selected the app, the majority of companies place choice in the hands of drivers, directly addressing the key supply barrier for GST. For users, this meets demand for gender matching, while for the company itself, it ensures that users maximize their use on the app by continuing to drive or ride with the same company, rather than switching to competitors.

Placing choice in the hands of drivers also encourages women who might not otherwise be on the road to register to drive. For instance, Uber (page 58) launched its “Women Rider Preference” feature in Saudi Arabia when, following the legalization of women’s driving, some 74 percent of women surveyed said they would be interested in driving only for other women.

LIMITING GEOGRAPHICAL COVERAGE OR HOURS OF OPERATION

Another way to enforce efficient matching between drivers and riders is to reduce the hours or locations in which the company is active. This option helps ensure that drivers do not have to drive long distances between riders. For instance, Fyonka, an Egypt-based app, limits coverage in Cairo to the locations where

demand is sufficient (page 45). Lily Ride (page 47), a women-only two-wheeler ride-hailing service in Bangladesh's capital, Dhaka, does not accept ride requests from the northern district of Uttara because the women would have to travel on a highway connecting Dhaka to that outer suburb. High-speed traffic makes highways dangerous for two-wheelers and increases the risk of accidents for the driver. "In trying to provide safe transport for women, I cannot risk the lives of my own women drivers, so we do not take these requests," said Syed Saif, the founder of Lily Ride.

Several other companies also provide drivers with more scope than is typical to select routes depending on road safety or crime risk. Femitaxi, a Brazilian ride-hailing company that employs only female drivers and operates in São Paulo and Brasilia, allows its

drivers to cancel requests from areas they believe are unsafe. Although offering such options gets drivers on the road, it further limits the population that can benefit from these services—and particularly restricts low-income women who are more likely to live in high-risk areas.

Notably, companies have taken opposing approaches to optimizing hours of operations. Some, such as Ojek Syari (page 47), Lily Ride (page 47), and a pilot by PickMe (page 53), provide the option only during peak operations, when more women drivers are on the road. Others, like Lady Bug in Kenya, run the option only at night, when rider demand peaks. "Lady Bug service will be open for requests to all customers from 6am until 6pm, after which only ladies will be allowed to make a request" the company founder, Kamal Buddhahatti, announced in 2016 (Amos 2016).



FOCUSING ON RELIABLE AND HIGH-VALUE CUSTOMER GROUPS

Another way to manage complex network dynamics is to focus either on groups with predictable demand or on high-value customers. This category includes corporate customers, especially those that provide transportation for their employees after certain hours of the day. For Sakha Cabs in India (page 42), corporate clients account for 80 percent of fleet use. Miss Taxi Ghana targets the diplomatic community. Its founder, Esenam Nyador, reported, “Our contact numbers are with the embassies. Our security is built on us knowing who we are serving and the person who recommended them.” The familiarity of a closed clientele makes the women drivers comfortable about taking male passengers as well. Consistent demand also can be created through subscription models. Ojek Syari (page 47), for example, provides a given number of rides to and from work for subscribers in Indonesia.

Another consistent customer segment is children and families. For instance, two companies, Taxshe and Koala Kabs of India (page 50), run a model with women drivers that caters to school pickups and dropoffs. Families receive reliable transportation, and women work only for limited periods, typically returning home during school hours. PickMe (page 53) noted that many clients who use the rider opt-in model were not making the selection for themselves, but rather for school or other local transportation for their children.

INCREASING PRICES

Some, but not all, companies increased prices for women-provided services, either by charging floor prices above market rates for nonsegregated services or by charging a supplement for customers who use the

opt-in product, as in the case of PickMe (page 53). For drivers, this process helps address the risk of reduced incomes as a result of serving fewer riders. At the same time, it reduces the population of women who may be able to obtain women-provided services or, alternatively, the frequency with which these services are used.

Women Cabs in Bangaluru, India, which began in 2014, is growing by offering service to high-end clients. The company offers premium cars and the promise of safety and a high-quality customer experience.

However, not all entrepreneurs find charging higher prices viable. Revathi Roy, a “serial entrepreneur” in the ride-hailing business in India, has started two such companies. Her first, ForShe, was sold and was followed by Viira Rides, a logistics services firm with cabs and two-wheelers driven by women. She says getting the pricing right remains one of the harder parts of the business: “If a ride is available for 100 rupees and I charge you 300 just because I have a woman driver. What sense does that make?”

Higher pricing is also less applicable to moto taxis such as Ojesy and Lily Ride (page 47) or to companies that offer tuk-tuk options. Lady Bug in Kenya offers two sets of fares, one for newer cars and one for older cars.

ENABLING VEHICLE FINANCING

Because of gaps in women’s financial inclusion, access to financing for vehicles, along with associated costs like insurance, represents a much larger barrier to entry to the sector for women than for men (IFC 2018). In addition, financing vehicles can represent a high-cost, depreciating asset that can be difficult for women to pay off, particularly if driving part time. In the case of the government-backed women taxi service

She Taxi in India, women drivers were given concessional loans by the government to buy their cars; however, when earnings were not enough to repay the installments drivers protested, demanding further concessions (page 51). Several companies addressed this challenge by facilitating drivers' access to vehicles. At Taxshe (page 50) and Sakha (page 42), companies initially own the vehicles, but when drivers start to earn sufficient income they make contributions to car payments and have the option of taking over the lease and eventually owning the vehicle. However, those drivers who do not wish to own the car may continue driving on behalf of the companies.

TACKLING SECURITY CONCERNS AND SOCIAL NORMS

Many of the companies interviewed recognized the degree to which safety, security, and social norms disproportionately impact women in transport and

took proactive steps to address those barriers within their recruiting, training, and operations.

For instance, the founding teams of Sakha Cabs (page 42) and Ladybird (page 63) spoke about hosting events for recruits' families or even going directly to the homes of their drivers to convince the household that driving is a safe and productive form of work for women. Another, Priyadarshini Cabs, interviews the family of the woman driver-aspirant as well. "If the family doesn't support the woman, she can't be a driver because 8 hours can become 12 hours. If she has children and the family does not support her in looking after them when she is away, trust me, she will bang the car in stress," said Susieben Shah, the company's founder. "Once her confidence is shaken, [she] will never be able to get behind the wheel." Another company, Ojek Syari (page 47), goes so far as to get written permission from drivers' family members.



Shailja Mittal, of Koala Kabs in India, said that that company's biggest challenge is to keep drivers from dropping off because of conflicts with care responsibilities. "It is not that they don't want to work. But the conditions in their home don't let them," Mittal explained. Husbands insist that the woman cook the food before going to work, cook again in the evenings, and take full responsibility for the children as well. Koala Kabs employs a counselor to listen to the woman's problems and to talk to family members and try to solve the issues between them. Mittal explained, "Since they are coming with so much baggage, so many restrictions, they tend to give up very soon. Getting them out of that cocoon again and again is the big challenge."

Both drivers and their families relied on assurances of the increased safety and security features many companies adopted. Sakha Cabs was able to conduct inter-city transport services, which usually requires drivers to sleep overnight in the car, by ensuring that women could stay overnight in a secure room. Ladybird enabled women's participation in long-distance oil transport by sending women out in teams of two. These measures added to features that have been increasingly adopted across the transportation industry, such as location sharing and in-app links to emergency responders.

INVESTING IN TRAINING AND LICENSING

The low supply of women drivers is widely recognized as the key barrier to growth for women-provided transport services. Some companies, including Sakha Cabs (page 42), approached training from a social impact perspective, running separate foundations or nonprofits that enabled subsidized training. Others, such as Uber Saudi Arabia (page 58), grew the market of drivers by funding licensing and training of women drivers through social impact initiatives. Moto service

"Women come in very enthusiastic in the beginning. Extremely enthusiastic. Then I tell them go back home and speak to your husbands. After they speak to them some of them will come back in a very sorrowful voice saying my husband says this, my husband says that."

—Esenam Nyador, founder, Miss Taxi Ghana

Lily Ride (page 47) gives free training to any woman who wants to learn to ride a scooter to grow the number of potential women recruits.

Firms also invested in specialized training and licensing. For instance, Ladybird (page 63), a long-distance transport provider focusing on oil delivery, worked with an arm of the Ghanaian armed forces to provide training in intense hardship and survival. Many companies support the licensing process, particularly in jurisdictions where personal and commercial licenses require separate administrative processes.

ALTERNATIVES TO SEGREGATED TRANSPORT

In addition to the companies that provide one of the seven models of GST outlined earlier, several companies interviewed reflected on why they had chosen not to pursue it—or why they had piloted and pulled the offering.

Rationales reflected alternative approaches to inclusivity and concerns with operational efficiency. “We have considered matching women drivers and women riders; however, this system would be countereffective to the whole idea of ride-hailing, which is to create as much efficiency as possible—allocating the closest driver possible,” said Sergio Pereira, director at Kapten. “Given the percentage of women drivers is very low at 4 to 7 percent, but [there are] around 45 to 50 percent women riders, this feature would be counterproductive.” Josephine Chitra, senior manager at Gojek noted that GST could send the wrong message: “Rather than segregation, our focus has always been on inclusion and creating a safe ecosystem for everyone, including women. We hope everyone, regardless of their sex and gender, can feel safe when traveling with us.”

Other companies, including the firms that offer GST options, emphasized the need to promote women’s inclusion in ride-hailing and to develop robust safety and security features. In the words of Colin Judd, head of government relations and public policy at Careem, “Careem actively promotes the participation of women in the ride hailing industry as passengers and entrepreneurs. When it was announced in 2018 that women in Saudi Arabia were going to be allowed to drive, we quickly opened up the Careem platform to women drivers—or Captinas—and have had relative success in onboarding them to drive in the Kingdom.”

Other companies have initiated segregated products but have since withdrawn them. In India, Ola launched Ola Pink, which has since closed. As Aishwarya Raman, associate director and head of research at the Ola Mobility Institute, noted, “Matching a woman driver only with a woman passenger does not always lead to asset maximization for the driver herself and reduces her ability to earn more. We should be open to women drivers ferrying any and all passengers, and increase the drivers’ remunerative opportunities. This would inspire other women to take up driving as a livelihood opportunity which is a step towards wider social and economic empowerment.” In Sri Lanka, PickMe piloted a Lady Fleet, which allowed riders to contact a call center and request a woman driver, and plans to relaunch the service (page 53).





4. Case Studies

Sakha Cabs Combines For-Profit and Nonprofit Models to Get Women on the Road in India

SUMMARY

In India, social norms and limited mobility for women have created a demand for gender-segregated transport. However, start-ups that aim to meet this demand face two key challenges: first, potential drivers from low-income households need support to get on the road, and, second, high care responsibilities are almost completely borne by women. Sakha Cabs aims to overcome these challenges through the adoption of a rights-based training program.

BACKGROUND

Sakha Cabs is a car service operating in Delhi, Indore, Jaipur, and Kolkata. Unlike taxis, car services in India traditionally work on the fixed-price model of duration and kilometers covered. For instance, a car may be hired for a four-hour hire for a distance of up to 40 kilometers or an eight-hour hire for a distance of up to 80 kilometers, with charges for overages. Sakha straddles the old call-a-cab model and ride-hailing: customers call a phone number to book a ride or book on the company's website. Additionally, Sakha's vehicles are equipped with a safety button that connects to a 24-hour call center which can track the driver on GPS.

RECRUITMENT AND TRAINING

DRIVER PROFILE

In an interview, Meenu Vadera, the founder of Sakha Cabs, repeatedly emphasized one point: it is not enough to teach driving and get women a license. Industry players and the government have to recognize the fundamental societal factors that prevent more women from entering this domain and from achieving a critical mass of women drivers in India. Sakha Cabs recognized early on that many prospective women drivers belonged to the poorest households and were often unaware of driving as a viable profession for them. Women come from households whose income is typically below the government poverty line of 3,900 rupees (US\$55) per month. Even those who showed interest in signing up did not have the proof of identification required to obtain a license. Many

“Employing women drivers in strategic, high-visibility locations like police stations, airports, or hop-on-hop-off buses not only supports women’s employment but also projects a sense of safety in public places for women travelers.”

—Meenu Vadera, founder, Sakha Cabs

faced issues of domestic violence or resistance from family members who did not support women working as taxi drivers.

RECRUITMENT AND TRAINING

Sakha Cabs recognized that merely teaching driving skills would be insufficient to create successful drivers. As a result, it created a nonprofit called Azad Foundation, with which it formed a strategic partnership. Azad Foundation provides a training program combining knowledge about women's rights, communication, and life skills. Family members are also engaged to ensure buy-in. Trainees pay Azad Foundation 2,000 rupees (US\$30) as a "commitment fund" to ensure they are vested in the training.

"Women drivers [are] not students or people just wanting to top up their income from other sources. They have come in because they want a job with security, permanence, and so on. They don't want the uncertainty of not knowing whether they will get a ride or not."

—Meenu Vadera, founder, Sakha Cabs

BUSINESS MODEL

Sakha manages the market by focusing on client bases with large, consistent demand. The model follows several verticals: rides booked through the call center, business-to-business services, and private placement, with an upcoming product for tourists. The company has also overcome challenges to long-distance travel by enhancing security for drivers, expanding their geographical remit.



CASE STUDIES—SAKHA CABS *continued*

- **Target market.** Business-to-business services include contracts with large corporations, such as PwC and Ernst & Young, that provide the majority of company revenue and engage 80 percent of the fleet. The service is used mainly by women employees of these companies who work in late-night shifts and would prefer a female driver to take them home. The remaining 20 percent of the cabs are used for trips booked through the call center, for both local and inter-city transportation.
- **Private placement of chauffeurs.** Here, Sakha acts like a placement agency to provide concierge services to clients. A contract is signed outlining the terms of engagement with the employer and including timing, leave, overtime rates, and so on. The woman driver then begins to receive her salary directly from her new employer. Although these opportunities allow the women drivers the possibility to earn more money, the familiar issues of women's mobility arise. If it has been a long day, the woman driver may be unable to find reliable public transport at a late hour. Sakha has hence added the clause that after 8 p.m. the driver must be paid the fare required to go home by an auto, as it is not feasible to wait for a bus at a late hour. Finally, in future, Sakha is planning to open a new line of business, that of women tourist guides.
- **Time and geographical scope.** Sakha cabs is able to operate on a 24-hour schedule and to support citywide and long-distance travel. When it started, the company proposed an 8 a.m. to 8 p.m. model, assuming women would find it difficult to work outside those hours. However, after getting on the road, drivers asked for extended service hours, including 24 hours and, more recently, for inter-city tours requiring overnight stays. Customarily in India, on overnight trips the cab driver sleeps in the car or makes other ad hoc arrangements. However, Sakha's drivers are able to accept such trips because the company arranges their accommodations, taking responsibility for their security.
- **Payment model.** Drivers earn a basic guaranteed income, which they have the option to build upon by working overtime. Meenu Vadera believes this is the preferred model for resource-poor women who already come from vulnerable contexts and hence do not wish to take on high-risk entrepreneurial models of investing in cars and bearing all the related costs.

Fyonka's Women Exclusive Model Takes to the Road in Egypt

SUMMARY

Fyonka, Egypt's women-only ride-hailing company, was born out of three factors: limited mobility, a high demand for safe and secure transportation, and limited career opportunities for women. In its first year of operations, the company has seen high interest among female drivers, with over 500 registered and a wait list for activation. However, long-term success for the business will require successfully building the rider market and managing difficult network dynamics, including how best to balance limited time and service locations.

FYONKA

At 23 percent, female labor force participation in Egypt is among the lowest in the world (World Bank 2019a). Limitations on women's economic participation are particularly acute in nontraditional sectors like transportation. This lower participation is driven by factors like digital and financial inclusion but also by restrictive social norms: in IFC's (2018) study on the ride-hailing industry in Egypt, 57 percent of Egyptian men surveyed said they would be unhappy if a female member of their family signed up to drive a cab.

Fyonka's founders, Abdallah Hussein, Mostafa El Kholy, and Omar Shaaban, knew that they would have to overcome these barriers to start a ride-hailing company designed for women. Fyonka, which means ribbon or bow in Arabic, is Egypt's only all-female ride-hailing service. It matches an exclusively female driving force with an exclusively female ridership base in select zones of Cairo. Hussein says that despite facing widespread perceptions that women are not committed to

work, women were committed to the job: "We thought retention would be a big problem. However, 70 to 80 percent of the partners who started with us in the first month are still with us today." Founded in December 2018, the company had more than 500 driver-partners in its database as of November 2019. The company is seeking to prove gender-segregated ride-hailing can be a success by prioritizing security, reaching out to drivers' families, and targeting service areas to specific times and specific locations within Cairo.

SECURITY AND SUPPORT

Removing the norms forbidding interactions with men in a confined, private space, as well as the real or perceived security risks of doing so, opened up the pipeline of women drivers in Cairo. Fyonka also ensured the security of drivers in other ways. All the vehicles have an emergency button that can be used in a crisis and a photo verification feature in the app. When the driver arrives at the customer pickup point, the customer can view her picture, name, and mobile number on the app to confirm that this is, in fact, her driver. Fyonka also has partnered with MAYDAY, an Egyptian roadside assistance application, so that if the driver needs any help with

During high school final exams, there was a huge drop in the number of drivers on the road. Inquiries revealed mothers were staying at home to ensure the children studied. "We never thought this would affect our business."

—Abdallah Hussein, cofounder, Fyonka

CASE STUDIES—FYONKA *continued*

changing tires or jumpstarting the vehicle, for example, help will arrive within 30 minutes.

REACHING OUT TO FAMILY

The high importance given to security is reassuring not only for the drivers but also to their family members. One founder recalls a case of a woman driver who wanted to join the company, but her brother, who was a driver with another ride-hailing company, opposed his sister's idea of working for Fyonka. However, when Fyonka's executives met the brother and spoke to him about the safety features in the vehicle and app, he was convinced that the risk for his sister was low.

TIME AND GEOGRAPHIC RESTRICTIONS

After market research showed high demand for travel after midnight, Fyonka plans to extend the current operating hours from 8 a.m. – midnight to 8 a.m. – 3 a.m. Fyonka is also scheduled to expand its operations across new areas. Currently it operates in 15 of the 20 districts in Cairo, where it could potentially offer its services. The criteria for selection of districts is safety, contiguity, and presence of a rider market. The company is hopeful that with a fresh round of funding it will be able to onboard more drivers and expand the operating areas. After being approached by a women's scooter club in Alexandria, Fyonka also intends to launch Fyonka Scooters in the city.

WORK PATTERNS

Most of Fyonka's drivers are 20 to 35 years old. A majority are single mothers—divorced or widowed

“Before we started Fyonka, our main worry was that we wouldn't be able to attract enough drivers. This was a big misconception. We have double of what we need. We have a wait list of drivers wanting to join us.”

—Abdallah Hussein, cofounder, Fyonka

and hence carrying their household responsibilities almost completely. The opportunity to generate income on a convenient schedule is what typically attracts women drivers to the sector—83 percent identified the ability to work at times that suit them as a key benefit (IFC 2018).

Fyonka's own trip data revealed how closely domestic and care responsibilities influence women's driving patterns. For instance, during high school final exams, the company saw a huge drop in the number of drivers on the road. Inquiries revealed mothers were staying at home to ensure their children studied. “We never thought this would affect our business,” Hussein said. Likewise, during the festive season of Ramadan, when Muslims traditionally fast during the day and have a feast after sunset, the company noted a drop in the number of available drivers two hours before the fast was broken. The women drivers had gone home to cook the food for the evening meal.

The founders note that continuing to address social barriers will help more women get on the road or earn more from ride-hailing. “It will have a ripple effect if females are able to penetrate such a male-dominated market. They will be able to enter similar fields which they were not able to a few years ago,” Hussein said.

Lily Ride and Ojek Syari Launch Moto Services for Women in Bangladesh and Indonesia

SUMMARY

In cities like Dhaka, Bangladesh, and Jakarta, Indonesia, motorbike taxis are justifiably popular. In addition to being easier to navigate in dense traffic, these modes of transport enjoy a lower cost per ride that is more suited to women's need for affordable transport. However, drivers are almost always male, meaning that women passengers sitting on the pillion have to overcome social norms related to physical proximity and are too often subject to sexual harassment.

Over the past five years two companies, Lily Ride of Bangladesh and Ojek Syari of Indonesia, have launched gender-segregated apps that have evolved very different business plans. Lily Ride has extended to women-only services and Ojek Syari, since rebranded SyariHub, has evolved from transport into services ranging from nannying to tutoring in the Quran. Both have turned gender-segregated moto services into an effort to become gender-segregated super apps.

Lily Ride, Bangladesh

BACKGROUND

In 2017, when Syed Saif's wife took a trip on a motorbike through a ride-hailing service, she was in for an unpleasant surprise when the driver subsequently began sending her text messages. The incident prompted Saif to think about better

ways for women to obtain moto rides. "Whenever you see a woman on a motorbike you can make out who is going with their peer and who is taking a ride, because when they are ride-hailing, they put a bag in front of them as a barrier from the male driver and sit really uncomfortably. But if this issue were not there, even more people would be using two-wheeler taxis," Saif said. He ended up founding Lily Ride, which matches women moto drivers with women passengers, the following year.

In a BBC (2019) interview, Arundhati, a working mother, said the route that used to take her one and half hours by bus now takes only half an hour on a Lily Ride scooter. "When I read the newspaper of many, many incidents, I feel scared to go by bus. But when I started using Lily, it saved my time. It saved my money as well!," she said.

"Whenever you see a woman on a motorbike you can make out who is going with their peer and who is taking a ride, because when they are ride-hailing, they put a bag in front of them as a barrier from the male driver and sit really uncomfortably. But if this issue were not there, even more people would be using two-wheeler taxis."

—Syed Saif, founder, Lily Ride

BUSINESS MODEL

All of Lily Ride’s drivers are women. About 22 percent are full-time employees who earn a salary and add a small portion of variable incentives, while the remaining are “hobby ride-hailing drivers”—people who pick up ad hoc rides when convenient. All riders also are women, a significant portion of whom are university students and working women looking for a fast transportation solution in a notoriously gridlocked city. The segment of customers who request rides on demand at irregular intervals makes up about 30 percent of the market. The remaining 70 percent of the market constitutes advance booking customers. Those customers book rides for several months at a time, giving pickup time and destination. Pricing is on par with other competitors that offer moto services and is well below the cost of a car or even a three-wheeler, or tuk-tuk.

HIRING AND TRAINING CHALLENGES

Saif pointed out that the service has seen huge demand from passengers from the time of its soft launch in December 2017, but because of the paucity of women two-wheeler drivers, the company has been unable to meet the demand. The first round of drivers recruited through social media knew how to drive a two-wheeler and had the relevant license. The second round of drivers were harder to identify because of the social stigma

of women driving motos in Dhaka. To grow the pool of lady drivers, Lily Ride gives free training to any woman who wants to learn to ride a scooter. “We have 17 full timers now. But we have trained more than 130. Many just wanted the training, and did not want to become drivers. So we trained them anyway, free of cost. It is open for any woman,” Saif said. As a start-up, the company depends on existing drivers to teach newcomers, so there is a waiting list for training. Sometimes women leave during training because of emergencies back in the village or because the family does not allow them to continue.

Lily Ride’s vision is to see 20 percent to 30 percent of the drivers on two-wheelers through Dhaka’s roads be women and to have at least 200 women on its direct payroll, up from the current 17. But the big challenge is funding. Until now the company has been funded by angel investors. To supplement the ride-hailing business, the company is establishing new business lines. The first of these, Lily Tailor, offers door-to-door custom tailoring service for women’s clothes by women tailors. The next planned set of activities will extend into e-commerce.

Ojek Syari Becomes SyariHub

BACKGROUND

At the beginning of 2013, the mayor of Lhokseumawe, in Aceh, Indonesia, a conservative region where Islamic (Sharia) law has been implemented, announced that he would push for a

“Women in my community want to be able to be part of a woman’s network to run their businesses. My app helps them do that, without compromising their Islamic values.”

—Evilita Adriani, founder, SyariHub

law prohibiting women from straddling motorcycles or bicycles. Women would not be allowed to straddle motorbikes other than in an “emergency” and would not be allowed to hold onto the driver because that posture was against Islamic culture (BBC 2013). In 2015, the province passed a bill to ban unmarried couples from riding a motorcycle together, meaning women could not ride pillion on moto taxis driven by men (BBC 2015). Elsewhere in Indonesia, no explicit prohibition has been made against joint riding, but the practice remains frowned upon.

BUSINESS MODEL

Ojek Syari (also known as Ojesy) was founded in 2017 and has since completed 80,000 trips for women passengers. Ojek operates through a subscription model in which riders pay for a set number of trips per month; typically they are predictable rides such as school runs or commutes to work. Of the about 1,000 drivers on Ojesy, some 200 women are employees on salaries, working from 5 a.m. to 7 p.m., and an additional 800 work part time to meet the demand for one-off rides outside subscriptions. All the vehicles are owned by the women who enroll with them.

HIRING CHALLENGES

A big challenge is finding enough women drivers because the population of women drivers of two-wheelers is much smaller than women car drivers. The drivers are usually mothers, often single mothers, looking for some ancillary income. Ojesy recognizes the social norms that might keep women from getting on the road by reaching out to families, even to the extent of getting written permission from a male member of the family, such as a father, brother, or husband.

FROM RIDE-HAILING APP TO LIFESTYLE HUB

In a survey to find out what most drove women to join the platform, Ojesy found that women were most motivated not by income but by “making contacts with other women.” Recruits often operated a side business selling food or clothes or household-related items. By coming onto the platform, the women drivers felt they could access a new customer base. This motivation provided the inspiration for the company’s next iteration: a rebrand to SyariHub, a platform for Muslim women and families to connect and find services. Currently, SyariHub helps women find nannies, catering, massages, and tutors for teaching the Quran, in addition to rides for themselves and their children. By broadening the services offered by and to women, SyariHub could be said to be the first gender-segregated super app.

Taxshe and Koala Kabs Target High-Value Customers in India

SUMMARY

In India, two companies, Koala Kabs and Taxshe, are trying to manage demand by focusing on two consistent, high-value segments: children's school transport and corporate customers.

BUSINESS MODELS

Taxshe and Koala Kabs are two services in India that have women drivers handling school runs for women, dropping off and picking up children. Both services stem from a need to provide a secure trip for a group with high safety needs. Both companies position the drivers as "Mammas," who are as caring as the children's own mothers would be.

The drivers use the interval between the start and end of school to pick up younger children in the area and take them to their neighborhood daycare centers and preschools. The strategy works because preschools begin mid-morning and finish earlier than regular schools do, so the drivers can be back at the school gates in time to pick up the older children.

DRIVERS

Predictable routes, hours, clients, and income help women drivers manage their work and home commitments. Taxshe's drivers are allotted duties near their homes so that once they drop the children off they may take the cars they are driving to their homes during school hours. The cars serve as free publicity for the company to encourage more women to join, said Vandana Suri, Taxshe's owner and founder.

PRICING

Rates for this service are at a premium over standard ride-hailing services. But the target customers are affluent enough to pay the higher price for what they see as a safer option. Additionally, fares are split between six to eight children in each car to increase affordability. The premium pricing allows women drivers to earn more while working fewer hours than they would have had to in a general ride-hailing service. "We have waiting lists of four to five thousand children," said Suri. "The demand is so high for a service like ours."

POLICY CHALLENGES

The biggest challenge these two services face is whether that type of service would fall under regulations for cabs or school transport. The law in India is yet to clarify whether and how the rules for a school van could be applicable to a service that ferries children in cars. School vans have to follow a color code, and the drivers need to have a commercial license. On the other hand, commercial licenses are not needed for a taxi, creating a dilemma for cabs doing school runs. School vans also sign a contract with the school while Koala Kabs and Taxshe are contracted directly with parents as suppliers of private transport. All school transport vehicles have to have a speedometer that does not cross 25 miles per hour. Taxshe and Koala Kabs reported difficulty complying with this regulation, because in the evenings they do other trips, such as to the airport for adult women customers, and thereby are required to drive at higher speeds.

The Government of Kerala Supports the Development of **She Taxi**

BACKGROUND

In 2013, the Kerala government's Department of Social Justice opened an autonomous institution called Gender Park. Gender Park is a platform that brings together gender policy, research, education, and social initiatives toward reducing gender gaps in society. Headquartered in Trivandrum, Gender Park has a sprawling campus in the city of Kozhikode, in northern Kerala. As part of its off-campus activities, it began a women-only transport service, called She Taxi, to encourage women to enter the male-dominated profession of professional driving.

BUSINESS MODEL

The government contracted with an automobile manufacturer, Maruti Suzuki, and a finance company to provide vehicles to women at concessional rates. The cars were bought on loans offered at discounted interest rates by designated banks or financial institutions. Drivers without a license were trained in Maruti's driving school and

supported through the process of obtaining a driver's license. The government enacted three regulatory exceptions for the business to take off:

- It allowed the cars to be light pink instead of the yellow, white, and black that are the mandatory colors of taxis in the state.
- It allowed advertisements on the sides of the car to enable the venture to earn extra income, waiving the levy that is otherwise applicable.
- The women were permitted to wear a uniform in the same colors as that of the cab—pink and light blue—instead of the khaki uniform donned by male taxi drivers.

The business's operations, including running the call center through which rides were booked, scheduling a driver's trips, monitoring the trip, and handling complaints, were managed by a private agency. The agency earned a commission of 13 percent on every She Taxi trip. In addition, the ad revenue was shared between the driver and the private agency.

DRIVER PROFILES

Kerala is characterized by high rates of female literacy, education, work participation, and life expectancy, along with the tradition of matrilineal inheritance. Consequently, She Taxi's drivers represent a diverse demographic, including women from higher socioeconomic backgrounds who joined the labor force for the first time to get an extra income for their families.

"Initially we were worried that there would be backlash from male taxi drivers, who are all unionized, but that didn't happen. People are scared to do anything to She Taxi because they know they are government backed."

—PT Mohammed Sunish, chief executive officer, Gender Park

- **Hours and locations.** The drivers were available 24 hours a day and made intra- and inter-city trips. Their overnight stays were helped by an arrangement that Gender Park had with the local authorities of different districts in Kerala in which She Taxi drivers could use the restrooms of the government guest houses (accommodation for traveling government officials) while on long-distance trips.
- **Approach to safety.** She Taxis were equipped with separate emergency buttons for the driver and the rider that connect to a full-time control room as well as to the police contact number. Phone numbers of all emergency response systems in the city, such as police, hospitals, ambulance, automobile repair shops, fire stations, and safe night shelters for women, were available to the drivers.

BUSINESS GROWTH AND CHALLENGES

Starting with five drivers in 2014, the She Taxi fleet grew to 50 drivers in 2017. Business was flourishing with each driver earning between US\$700 and \$1,200 (50,000–85,000 rupees) per month. However, the drivers demanded further concessions on the purchase of cars. Some drivers took their vehicle and absconded, defaulting on their loans. Other drivers were reportedly unhappy because of high competition from app-based ride-hailing services, whereas She Taxi continued to rely on a call center. In addition, prices were administered by the government, because it was a state-backed enterprise, so the service did not use dynamic pricing (Jayaram 2018).

Following several rounds of negotiations with the drivers, the company has now been relaunched. She Taxi has developed an app for booking and was set to relaunch in December 2019 with 50 cabs and a popular Kerala film star as a goodwill ambassador, unveiling the new improved version of the service. In the relaunch, the company planned to take both male and female passengers to expand the passenger base.

PickMe Pilots a Rider Opt-In Option in Sri Lanka

SUMMARY

In Sri Lanka, over 90 percent of women have been harassed on buses or trains (UNFPA 2017). A study from Oxfam (Butt and Sekram 2019) found that strong social norms not only restricted women’s mobility but also enabled sexual harassment by discouraging victim or bystander interventions. In this context, PickMe decided to pilot a rider opt-in model in order both to serve women’s needs as riders and to test whether a gender-segregated solution would get more drivers on the road.

PICKME LADY FLEET

PickMe is a platform that facilitates services ranging from passenger transport on tuk-tuks and cars to long-distance transport and delivery. In a month-long pilot, a gender-segregated option called PickMe Lady Fleet was available in intra-city vehicles. Uniquely among the companies interviewed for this brief, riders, rather than drivers, opted in to the service. Men could be in the car as long as a woman passenger requested the ride. Women also commonly used the app to request transportation for their children to and from school.

90 percent of PickMe’s women riders would like the option of selecting a woman driver: of those riders, 25 percent would be willing to pay a surcharge to use this service.

The initial product was offered through a call center, rather than through the main app, with rides requested an hour in advance. Riders also paid an increased fee of 100 rupees (US\$0.55) over standard rates in the app, which was passed on to the driver. Even with these limitations, demand outstripped the company’s ability to deliver the product at scale because of the limited number of women drivers working in Sri Lanka.

A subsequent survey found that demand for women drivers is high but dynamic. Some 90 percent of women riders would like the option to select a woman driver, but the four reasons for preferring the service—when traveling alone, at night, to an unknown destination, or with children—represent only a portion of overall rides. However, 25 percent of interested riders would be willing to pay a higher rate for the service. Of these, 23 percent would be willing to pay a 30 percent to 50 percent surcharge and 18 percent would be willing to pay a 60 percent to 100 percent surcharge (IFC, Forthcoming B).

PickMe ran the pilot for a month and plans to relaunch the product in the app once it reaches a target number of women drivers in 2020. It also plans to extend the option to tuk-tuks, among the most popular options locally, which will both increase affordability for riders and open the option to a larger number of women drivers. Obtaining more drivers is a key motivation for PickMe. “We want to see if more women will come into the platform only to drive other women” said Tasnim Salie, director at PickMe. “Not enough women are taking advantage of the opportunity for work that ride-hailing can offer. Hopefully PickMe Lady Fleet can help.”

Green Cab South Africa Finances Green Vehicles for Women Drivers

SUMMARY

Over the past decade Green Cab, based in Cape Town, South Africa, has found a way to distinguish itself in a crowded market by providing environmentally sustainable transport. In its next phase, the company plans to combine environmental and social impact by creating a women-only driver service.

GREEN TRANSPORT

To create a green-transport service in South Africa, Green Cab has had to bring climate-smart technology to the local market. The company bases its fleet on the all-electric BMW-i3 model, which has zero carbon emissions but higher upfront costs and longer return on investment. “But so much of the expense is the actual operating cost such as fuel and maintenance: averaged over five or six years, electric vehicles drastically drop costs per trip,” noted Amiene van der Merwe, founder and managing director.

Part of Green Cab’s market development strategy is to target high-value customers, such as hosts of conferences and large events which are likely to prioritize social and environmental impact and which can bring in large groups of customers. The company calls this offering “Conferencing with a Conscience.” Green Cab also offers point-to-point transfers and chauffeur rides to the private sector and tours and charters to Cape Town’s active tourist market.

GETTING WOMEN ON THE ROAD AND IN THE DRIVER SEAT

Next, Green Cab is partnering with the international ride-hailing company Bolt to combine the existing environmentally friendly offering with an “open customer” model of women-provided transport, hiring only women to operate its vehicles but allowing men, women, and groups and select clientele such as corporations to book its vehicles.

Gareth Taylor, country manager at Bolt South Africa, said, “For us, the issue is that less than five percent of the more than 1 million drivers on our platform globally are women. By working with Green Cab we hope to obtain valuable input and feedback from a women-provided transport service that would enable Bolt to make the changes and upgrades that would make us more attractive to female transport service providers in the future.”

Van der Merwe sees this first as a social impact initiative through driving transformation of a sector that employs fewer women drivers, but also as a business initiative because women drivers are well received in terms of safety and customer satisfaction. For instance, Green Cab plans to sponsor different local causes and will train drivers to speak to riders about them. Van der Merwe noted that she sees women drivers as great potential salespeople, helping to drive support of the monthly causes championed by the company. The company is confident that drivers who engage with riders will get higher tips and income.

Regulatory Barriers Shut Down Rosy and Pink Cabs and Pink Ladies in the United Kingdom

SUMMARY

The regulatory context of gender-segregated transport is often opaque. In two cases in the United Kingdom, the founders of Rosy and Pink Cabs faced regulatory backlash that forced the close of their GST offerings.

ROSY AND PINK CABS

When Mandy Welsh decided to launch a taxi service in Glasgow, Scotland, that would hire women drivers for women passengers, she envisaged transporting “grannies to Bingo and kids to school.” The idea came from seeing an increasing number of media reports about women being sexually assaulted when traveling alone. Welsh created the service because she believes that some women feel safer being picked up by another woman and that some men feel safer knowing their partner, child, or mother is being picked up by a woman.

“They were just so appalled by the idea. They said I was discriminating, and I was being sexist. I wasn’t discriminating against men, I was discriminating against sexual predators.”

—Mandy Welsh, founder, Rosy and Pink Cabs

“By refusing to allow this app, you are telling women that they are safe at all times, and this is simply untrue. As much as we would like to believe this, reports on assaults on women by men confirm that women are becoming more vulnerable when travelling alone, especially at night.”

—Mandy Welsh, founder, Rosy and Pink Cabs

Explaining her business objective, Welsh stated, “Women deserve to feel safe and make their own choices about who drives them home—and this app is designed to do that. It has also been designed with female drivers in mind, to help them feel safer when they are out driving, particularly at night. I created this as I feel passionately about helping ensure women have a choice and feel safe.”

The model was that female taxi and private-hire drivers would pay a membership fee of 25 pounds a month for the first month and 10 pounds per month subsequently, which would allow them to use the platform whenever they wanted. It was targeted at women, such as stay-at-home mothers, who wanted to have a flexible schedule and to earn some extra money.

CASE STUDIES—ROSY AND PINK CABS, PINK LADIES *continued*

But Welsh encountered unexpected legal hurdles. When she applied for the license required to operate a taxi service, she was stalled by the Glasgow City Council on the grounds that such a service was discriminatory against male cab drivers. Welsh was surprised, because women-only cab services exist in other parts of the United Kingdom, such as in London.

In an interview with a local news journal, Glasgow’s licensing convener Alex Wilson said, “If it was the other way round we would be looking at discrimination against females. The whole not-picking-up-male passengers is a concern to me. I don’t think we should discriminate at all” (Sandelands 2019).

“I just didn’t understand why they would be so offended by an all-female app. I didn’t think I was proposing anything terrible, I was trying to help,” Welsh said. Her lawyer has also gone on record stating that the council did not seem to like the concept itself (McCaffrey 2019).

The founder was informed that she had to open the service to everyone, irrespective of gender. Welsh, therefore, plans to relaunch the app by opening it up to all self-employed certified male and female taxi and private hire drivers who may be looking to earn extra cash or increase their current wages. A membership fee would be charged every month to gain access to the app and a commission would be taken on each fare (Welsh n.d.). She attempted a crowdfunding project for 5,000 pounds for start-up costs, licensing, and marketing.

In the meantime, she plans to submit a petition to the Scottish Parliament arguing that her original idea is not discriminatory because women should be given the choice of a women-only service. “I still want to guarantee female drivers for female passengers if they want them. I still believe 100 percent in the idea,” Welsh said.

PINK LADIES, UNITED KINGDOM

Pink Ladies, Warrington, began in 2005 as an exclusive, women-only car club. The company’s 14 Renault Kangoo vehicles were owned by the club members, who paid to hire a driver when they wanted to use the car club. The club produced its own magazine and organized days out for its 14,000 members—15 percent of the women in Warrington (Barkham 2009). The idea stemmed from an observed need to provide women with a comfortable, safe transport option (*Manchester Evening News* 2010).

In November 2008, council officials posed as customers using the Regulation of Investigatory Powers Act, designed to combat terrorism and serious crimes. A few months later, in May 2009, charges were pressed against the founders, Andrea Winders and Tina Dutton, by Warrington Council in Cheshire for operating an unlicensed private hire company. The founders held that if they had registered under the taxi licensing system, sex discrimination laws would have compelled their women drivers to pick up both male and female customers.

The company overcame that hurdle and, as of 2010, media reports announced its plans to expand to other countries, beginning with France. Pink Ladies had 45 employees, uniformed lady chauffeurs who were trained in self-defense and did more than driving, including helping the elderly and running errands for clients (*Manchester Evening News* 2010). However, nearly 10 years after it was launched, the high-profile service closed down on New Year's Eve 2014. Founder Tina Dutton admitted in a news report that she was unable to renew the company's permits

because of “unrealistic expectations,” red tape, and too many hurdles to overcome (Hirst 2015).

One 79-year-old service user told a reporter that it was a “big loss” to the town of Warrington and that she was unsure how she would cope without Pink Ladies. A woman driver, 50, said, “For the past few months I have had the enormous pleasure to be of some service to our ladies of this town. They gave me a sense of purpose, my dignity at having a job” (Hirst 2015).



Uber's "Women Rider Preference" Feature Launches in Saudi Arabia and Brazil

SUMMARY

In 2018, Uber launched the "Women Rider Preference" feature, which is designed to give women driver-partners in Saudi Arabia the choice to select a preference of women riders. This feature was initially developed to fit a unique context: Saudi Arabia had just lifted the ban on women driving, and many saw it as a necessary transition step to meet growing interest from Saudi women seeking to get into the workforce. More than a year on, the feature has been well received, and drivers, 74 percent of whom initially indicated they would be interested in driving only women riders, are shifting to the full app, increasingly opting to drive both women and men. Next, Uber is piloting the Women Rider Preference feature to meet the challenges of an entirely different context—Brazil.

LIFTING THE BAN ON WOMEN DRIVING IN SAUDI ARABIA

In June 2018, Saudi Arabia lifted the ban on women driving as part of a program of economic and social reforms targeted at increasing economic growth and women's labor force participation. In August 2019, reforms were broadened to include legislation that allowed women to apply for

Putting the choice in the hands of drivers means that the company does not impose any of the limitations implicit in gender-segregated transportation.

74 percent of prospective women drivers interviewed in Saudi Arabia said they would only be interested in driving women riders.

passports and to travel without male guardianship. However, longstanding restrictions mean that gender gaps in women's economic participation are substantial: less than 17 percent of women in Saudi Arabia are in the labor force (World Bank 2019a) and both legal and social norms continue to normalize the segregation of men and women in public and professional life.

DEMAND FOR GENDER-SEGREGATED TRANSPORT

In Saudi Arabia, women make up Uber's key rider base and take the majority of all trips on the app. Even in this context, however, some riders experienced pushback about traveling in a confined space with male drivers, particularly when traveling alone.

The lift of the ban offered the potential to get women into the workforce. Research conducted with third-party research firm Ipsos found that 78 percent of women planned to apply for a license (Jacobo 2019) and almost 31 percent of those surveyed indicated that they were interested in driving as an earnings opportunity (Uber Team 2019). However, many women drivers were put off by the idea of driving men: Uber's market research

“Before launching the Women Rider Preference feature, we found through research carried out in partnership with Ipsos that a large percentage of prospective women drivers interviewed would only be interested in driving women riders. Today, a number of women driving on the app still use the feature, while others choose to turn it off and use the app without a preference to riders.”

—Dana Al Zaben, senior public policy associate,
Uber

with prospective women drivers found that 74 percent of prospective women drivers interviewed would be interested only in driving women riders.

“Safety is at the heart of everything we do,” said Rana Kortam, Uber’s former manager of global women’s safety policy. “We’ve been hard at work launching multiple new technological safety features, strengthening our background checks, reforming our policies, and working with over 200 advocate organizations around the world to continue to do better on safety. Our approach to rider and driver safety goes beyond who they’re matched with. However, in Saudi Arabia, women wanted the choice to drive women, and providing that choice to them meant unlocking significant opportunities for their economic empowerment; something we care deeply about.”

BRINGING THE WOMEN RIDER PREFERENCE FEATURE TO THE MARKET

Rather than develop a feature that exclusively matched women drivers and riders, Uber worked on the Women Rider Preference feature, which gives women driver-partners in Saudi Arabia the choice to select a preference of women riders. Riders are not able to elect to be paired with female drivers. The model had a soft launch in June 2018 and a full launch in April 2019. Putting the choice in the hands of drivers means that the company does not impose any of the limitations implicit in gender-segregated transportation, such as a smaller market size or fewer trips.

GETTING WOMEN ON THE ROAD

The Women Rider Preference was rolled out as part of Uber’s Masaruky, or “Your Path” Initiative, which attempts to increase women’s participation in the workforce through access to affordable transportation, in addition to increasing women’s access to flexible, part-time work. “The first rounds of drivers that signed up were pioneers,” said Dana Al Zaben, Uber’s senior public policy associate. “These were among the first women to drive in the Kingdom [of Saudi Arabia], not just on Uber.” In the months following the lift of the ban, more and more women received licenses and a broader spectrum of women registered to drive.

Drivers’ engagement with the Women Rider Preference also evolved over its first year of operation. Although the vast majority of women had begun by stating they would only drive if they could be matched with other women, over time

CASE STUDIES—UBER *continued*

many transitioned from the Women Rider Preference to the full app, driving both men and women. An even larger portion of women now opt in and out of the Women Rider Preference, for instance when shifting between day and night driving.

BARRIERS TO GROWTH

Operational and market challenges remain. First, many female riders use the account of a male family member, meaning they would not be matched with women drivers. Additionally, since the app relies on name matching rather than on self-identification, it functions most effectively with names that only have female usage. Another operational challenge is verifying identification, because women wear niqabs and cannot be required to remove them for photos.



But the biggest barrier lies in the supply of drivers. More than 50,000 licenses were issued to women across Saudi Arabia in the first six months of 2019 (Corder 2019), but training schools are overwhelmed by the demand for licenses following legalization, with wait lists up to six months. Licensing fees are also substantial, costing about US\$660 (2,500 riyal). As part of the Masaruky Initiative, Uber dedicated US\$266,000 (1 million riyal) to covering licensing costs for women.

FROM SAUDI ARABIA TO BRAZIL

After a year in Saudi Arabia, Uber announced plans to pilot the Women Rider Preference feature in a second country—Brazil.

While a very different context to Saudi Arabia, Brazil also poses a number of challenges for women, particularly in regards to gender-based violence (ActionAid 2014). By trialing the feature in a new location, Uber planned to test whether it had potential for a larger roll-out.

At the time of writing, Uber began with a pilot in 11 cities. In the first stage, Uber Brazil found that over half of women drivers who used Women Rider Preference took more trips overall in the observed post-launch period. Importantly, they also found that over half of women who used the feature drove more at night, the time when women are typically least likely to be on the road. This early data reinforces the insights from Saudi Arabia, suggesting that GST can offer a pathway for women to drive more with ride-hailing services.

Didi Chuxing and 99 Introduce “Algorithmic Prioritization” and Driver Opt In

SUMMARY

In its home market of China, Didi Chuxing uses “algorithmic prioritization”—a model that automatically links women drivers and riders as one of several safety dimensions it uses when dispatching orders. In the newer market of Brazil, the company is also piloting a new feature, 99Mulher, which enables women drivers to opt-in to drive only women. Both sit alongside other evolving safety features.

ADJUSTING THE ALGORITHM FOR A SAFER PICKUP

In China, Didi uses a unique system of “algorithmic prioritization,” which includes driver and rider gender among many factors in deciding which users and drivers to pair. Specifically, the order-dispatching algorithm enables women riders to be automatically paired with another driver if there is a matching request within a given area and pickup time. However, if pickup times increase beyond an acceptable period, then the algorithm will prioritize other driver features, for instance a

male driver who has 10,000 rides without complaints.

Melody Tu, secretary general of the Didi Women’s Network, noted that an important feature of the algorithm-based matching is that women are not subject to increased danger or harassment while waiting for a vehicle that might occur if few women drivers were available. “Imagine a woman rider standing in the middle of the night on the curbside calling for a ride. There will probably be very few woman drivers on the road. You will be exposing the woman passenger to a long wait, which is not necessarily safe if we are focused exclusively on pairing her with a woman driver,” Tu said. At the same time, Tu also noted that every new filter reduces the pool of available drivers for that particular woman rider. “So it is a balancing act. We are always trying to improve the algorithms based on new data insights so that we can reach that delicate balance of convenience and safety for women.”

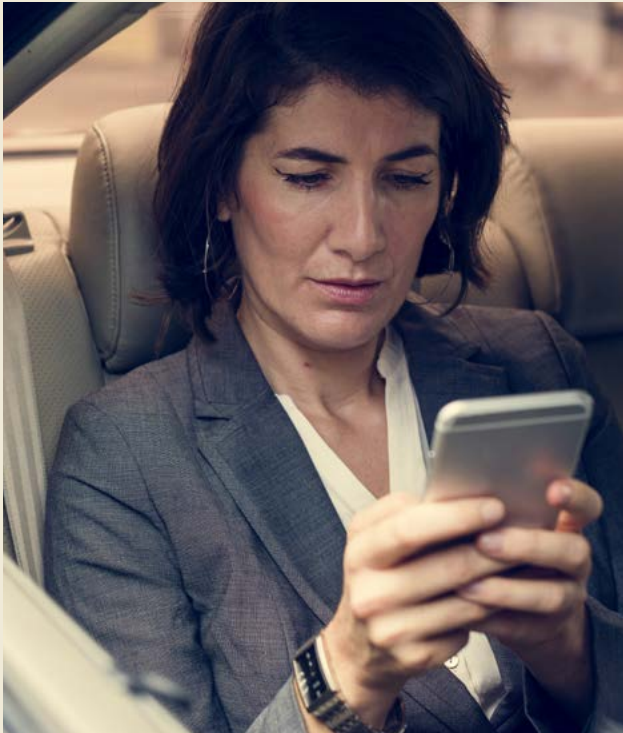
Matching women drivers and riders is one in a suite of safety features. Others include a virtual safety assistant for women users on ride-sharing product Hitch, which provides users with more information on their fellow passengers and the driver, including driving history, car condition, and the last verification time. Further safety features include enhanced driver verification procedures for long-distance trips, reminders to use Share Status and other in-trip safety features, an alert and intervention mechanism when algorithms detect abnormal route deviation from a stop, and a direct sharing contact with emergency response services through an in-app SOS button.

“It is a balancing act. We are always trying to improve the algorithms based on new data insights to reach that delicate balance of convenience and safety for women.”

—Melody Tu, secretary general of the Didi Women’s Network

FROM CHINA TO LATIN AMERICA

In 2018, Didi acquired ride-hailing company 99 in Brazil and has since started services in Chile, Colombia, Costa Rica, Mexico, and Panama. Apart from safety protections for all users, the company needed to invest more in protecting women drivers in the face of new, unique safety challenges. In China, for instance, women represented about 10 percent of drivers, most of whom worked on a part-time basis. According to a 2019 survey from 99, women make up 17 percent of 99's drivers and full-time women drivers work longer hours than their male counterparts. The average age of women drivers in Brazil is between 35 and 44; over half of them are mothers and a majority are the sole wage earner of a family.



In response to local needs, the company explored a variety of different features in addition to including algorithmic preference. First, in many Latin American markets Didi offers a feature called dynamic geofencing to identify hot safety zones that might be dangerous to drivers and passengers, while maintaining basic services to underprivileged neighborhoods. Didi reports that it received positive feedback from women drivers in Brazil that with this feature on the app, their families would feel safe enough to allow them to go to the road at night. Didi also noted that safety innovations accessible to all drivers tend to benefit more women drivers, who are more vulnerable in risky scenarios.

For its next step, 99, Didi's wholly owned subsidiary in Brazil, began trial operations of 99 Women (99Mulher), a women-driving-women program, in select Brazilian cities in December 2019. In the pilot program, verified female drivers would be able to choose in the app whether they wish to pick up only women passengers. 99 will monitor match accuracy, acceptance rates, user wait time, and feedback to evaluate the effects of the project.

Ladybird Logistics Introduces Women Drivers to the Business of Long-Distance Transport

SUMMARY

One sign that demand for women drivers is not purely spurred by passenger interest is the increasing extension of women's transportation companies beyond personal transit to courier and delivery services. Ladybird Logistics is among the few companies promoting women drivers into one of the most difficult of these spaces: long-distance oil delivery to Ghana's mining industry. Spurred initially by a desire to build women's representation in this burgeoning industry, the company worked with partners ranging from vehicle manufacturers to the Army of Ghana to set up systems to proactively address the social norms and security risks that keep women off the road, thus allowing women truck drivers to successfully compete with men.

"It is generally proven if you give a woman a \$100 in this part of the world, the woman will spend more on education, health, and welfare than the equivalent male. So that was another compelling reason for us. We felt we could kill several birds with one stone by going down this route of hiring women."

—William Tewiah, chief executive officer, Zen Petroleum

"They were going to be trailblazers because we didn't have any females in Ghana driving trucks. So it was also their idea of helping to start something totally different that attracted them to the job."

—Payin Marfo, managing director, Ladybird Logistics

BACKGROUND

William Tewiah had been the chief executive officer of Zen Petroleum Limited for 10 years and had spent much of his time and energy in those years battling with his truckers about pilferage of the fuel they were transporting to Ghana's mines. "Every time they delivered fuel there was always a big argument about 100 liters going missing or 500 liters going missing. And in some cases, they were actually taking fuel out and putting water in it. In pure frustration I decided to start our own transport business," he said. Tewiah wanted to break the existing format and do something completely different. Therefore, he thought of hiring women drivers, despite no one being very positive about the idea that women could drive trucks. But Tewiah thought of that as merely a training issue. What appealed to him about the idea was that the new women hired would not have preconceived ideas about how things are done in this line of business but would approach the job with a fresh and open mind. It also supported the company's social corporate responsibility objectives.

CASE STUDIES—LADYBIRD LOGISTICS *continued*

Payin Marfo was appointed as managing director of Ladybird Logistics, created as a long-distance trucking company with a focus on oil delivery and an initial contract to serve Zen Petroleum. As of August 2019, Ladybird employed 21 fully trained drivers, with 16 recruits in the pipeline.

RECRUITMENT

Recruitment proved to be the first substantial challenge for Ladybird. The initial job posting resulted in applications from mainly South Africa, but just a single application from Ghana. Marfo also heard that Metro Mass Transit, a government public transport company, had several women driving their long buses. The good news was that the license needed to drive those buses was the same as the one needed to drive trailer-trucks in Ghana because the vehicles were in the same weight category. Targeting the female drivers of Metro Mass seemed like the most logical way to recruit for Ladybird because, although they did not know how to drive an oil transport tanker, they at least had the license to do so. Recruiting Metro Mass employees resulted in 11 women joining the first cohort of Ladybird trainees. Each candidate

“Existing transporters have upped their game because of what the ladies have done. They have realized you cannot keep making excuses when you have Ladybird Logistics proving you wrong.”

—William Tewiah, chief executive officer, Zen Petroleum

“The results are overwhelming. Ladybird Logistics has just overproved everybody. Today we have at least a couple of other customers who want to do the same thing! We have started this for other companies as well. It’s been a tremendous success, it has broken a barrier in transportation.”

—Fredrik Morsing, managing director, Scania West Africa

underwent a licensure review and driving test, followed by an interview and a medical test. Successful candidates received an allowance, and those who had to relocate were supported with accommodations.

Transitions from Metro Mass to Ladybird—from a local to a long-distance and arguably more difficult job—were spurred by higher wages but also a desire to be a leader in a new space for women. As Marfo said, “The first batch of women that we recruited were courageous, they were bold women willing to join us on this journey to start something totally different and were willing to give us a try. I wouldn’t say it was only because of the attractive benefits or salary. They were going to be trailblazers because we didn’t have any females in Ghana driving trucks. So it was also their idea of helping to start something totally different that attracted them to the job.”

Realizing that families of the women would play a crucial role in their making the radical decision to become truck drivers, Marfo urged the women to

be completely candid with their families and get the buy-in of their spouses/partners before signing up.

TRAINING AND PARTNERSHIPS

In 2018, Scania AB, the Swedish manufacturer of commercial vehicles, had begun a drive to promote the inclusion of more women in transportation in West Africa. Along with the organization “Greater Accra Transport Executive” and the German development agency GIZ, Scania aspired to boost the number of woman drivers in Accra’s public transport system.

The timing was just right for Ladybird. In exchange for the purchase of their trucks, Scania agreed to train women in driving the vehicles under its “women moving trucks” project. The partnership was helped by Esenam Nyador, who runs Miss Taxi Ghana, a woman-only taxi service, and is an evangelist for getting more women into transportation in Ghana.

But it was felt that the training was not enough because the terrain the women truckers would be driving on was dangerous on their way to mines in remote areas. Addressing this concern required a partnership between the West African Transport Academy, Scania’s training outfit, GIZ, and the Ghana Armed Forces Mechanical Transport School.

For Ladybird, training was not only about learning to drive a Scania truck but also about instilling discipline, professionalism and providing the ladies with defensive driving, basic self-defense and security tips. To address this context, the Ghana

Armed Forces Mechanical Transport School (AFMTS) was approached to partner with the West African Training Academy (WATA) which is the training outfit of Swedish truck manufacturer Scania and the German development agency, GIZ, in developing the driver training curriculum and plan for Ladybird Logistics Limited.

The special training costs Ladybird Logistics close to US\$5,000 per person, so the company signs a bond with the recruit, in the presence of a guarantor, before the training commences. Only one woman quit at a different time during the training process without repaying the bond.

SECURITY

Safety and security concerns that exist across the transport sector are exacerbated in the context of long-haul trucking, where trips can be as long as 400 kilometers and often require an overnight stay in locations not designed to accommodate both men and women. Although male drivers on such assignments would spend the night sleeping inside the truck, for women this is not a safe option. Ladybird takes extra precautions for the safety of the driver on overnight trips. First, a woman driver travels with either a male or female escort on such trips. In addition, because the trucks deliver fuel to mines in remote areas, drivers are advised to stop in whichever town they find themselves before nightfall, so that they don’t drive after 6 p.m. At that town they stay in accommodations that are prearranged by the company.

VISION

Tewiah and Marfo’s vision for Ladybird Logistics is indeed ambitious. Tewiah wants Ladybird to do 60 to 70 percent of Zen’s business, up from the existing 25 percent. He would also like Ladybird to get into the inter-city transportation business, which he feels would be a huge opportunity because it is unsafe and erratic. “Having ladies drive buses will bring a whole new freshness to that sector,” Tewiah said.

Marfo would like to expand and get new customers and transport products in addition to petroleum. When she shares her vision for the company with her drivers, Marfo tells them: “We are only in Ghana now. But the vision that I have for this company is for us to stretch outside Ghana and for us to support and add value to companies outside Ghana.”

IMPACT

Tewiah is unequivocally appreciative of the new transportation company that he invested in. He believes it has exceeded expectations and has gone beyond stopping the fuel pilfering problem to pushing up industry standards.

Tewiah said it makes better sense to give business to Ladybird than to the old transporters because the returns are three times more than an equivalent truck. Fredrik Morsing, the managing director of Scania West Africa, who has been involved with Ladybird Logistics since the beginning, said that Ladybird is one of Scania’s most advanced customers despite being in operation for less than a year. He observed that Ladybird has among the best drivers and best accident statistics and that the company is proactive in dealing with accidents and has very professional management.



5. Revisiting the Debate

Can GST in Ride-Hailing Form Part of an Inclusive Transportation Ecosystem?

INTRODUCTION

The question of whether GST can form part of an inclusive transportation ecosystem can be divided into two interrelated points: First, can it support women's freedom of movement, and by extension greater economic participation? Second, can it encourage women to work more in a sector in which they are widely underrepresented? This section reviews evidence for answers to both questions as well as other solutions that could support equality in transportation.

DOES GST HELP WOMEN MOVE MORE FREELY?

Ongoing and global demand for GST suggests that these services support women's mobility in the short-term. Reports of overcrowding and challenges matching demand to available space remain one of the biggest difficulties in mass transit. In individual transit, the key roadblock for the companies interviewed for this paper was not sufficient rider demand but, almost universally, lack of women drivers. However, demand is variable, peaking at night or when passengers are traveling alone or in an unfamiliar environment. Thus GST is more likely adopted when there is a high perception of safety and security risk among other means of transport—safer transport would likely reduce demand for GST.

GST can get more women moving where they face safety fears or restrictive social norms. However, geographical restrictions or pricing premiums, where they exist, mean that the service remains out of reach for many who would otherwise benefit from it. Further, previous studies on mass transit have identified negative externalities of GST, such as the expectation that women travel only in segregated carriages.

It is notable that the key roadblock for the companies interviewed for this paper was not sufficient rider demand but, almost universally, lack of women drivers.

DOES GST IN RIDE-HAILING ENCOURAGE WOMEN TO DRIVE MORE?

Two patterns have emerged repeatedly throughout the interviews for this research: that GST offers a path to start driving for women who wouldn't otherwise consider driving as an occupation and, once women take that first step, they transition into other work in the sector. Danielle Wright described this pattern among the women who drive for her women-exclusive company, ChauffHer, in South Africa: "A lot of women who work for the general ride-hailing services said they don't drive at night because they end up picking up men who are drunk. But they would like to drive. Many are unemployed, single mums who are unable to find employment. So this helps them." Several companies indicated that they see GST as way to attract women users into the wider ride-hailing space, as representatives of Bolt (page 54), PickMe (page 53), and Uber (page 58) suggested. Once women start driving, they sometimes transition into other opportunities. When women's driving was legalized in Saudi Arabia, 74 percent of women interviewed by Uber said that they would only be interested in driving if they had the option of driving only other women, resulting in Uber's Women Rider Preference feature. However, a year after the feature launch, many of the women who started driving with Women Rider Preference have become more comfortable on the road and have expanded their driving to both men and women (page 58). Uber Brazil saw that more than 50 percent of women who used the feature started driving more when the offering was introduced. A similar pattern was seen with Ladybird employees, who started driving buses in Ghana and were then recruited and trained for the more arduous task of long-distance oil transport (page 63).

The evidence remains anecdotal but consistent across companies and regions. Future research could leverage company data to track previous employment histories and the long-term retention of women in the industry.

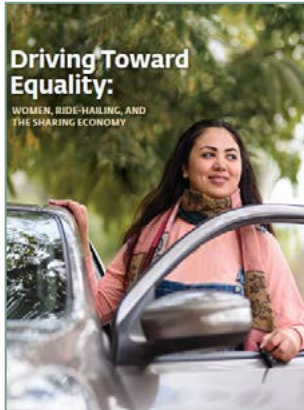
WHAT ARE OTHER SOLUTIONS TO IMPROVE INCLUSIVE TRANSPORT FOR WOMEN?

Proven transport solutions that support women (European Union 2014; IFC 2018; Acker and Ng 2018; ITF 2019; World Bank 2019a; Wright 2019), include but are not limited to:

- Increasing the frequency of public transport and the hours available to coincide with women's travel patterns;
- Supporting affordable transport, including offering off-peak fares and fare integration among different means of transport to reduce the number of tickets required for each trip;
- Providing safe and well-lit waiting spaces to reduce security risks and increase comfort at stops;
- Designing services to enable easier travel with children and shopping bags;
- Supporting the employment of women in nontraditional roles, through measures such as ensuring access to training and promotion opportunities and providing shift schedules that accommodate care roles;
- Enabling access to participation in driving through upskilling and digital and financial inclusion, such as responsible vehicle finance;
- Providing bathroom facilities for both passengers and drivers, as well as work schedules that enable drivers to use these facilities; and
- Tackling social norms that restrict women's mobility, including shifting attention to perpetrators of sexual harassment and increasing support for active bystander interventions.

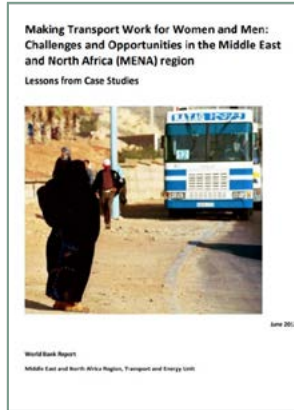
These and other solutions across the public and private sector are urgently needed to support an inclusive transport ecosystem for women.

SELECT RESOURCES ON GENDER AND TRANSPORTATION



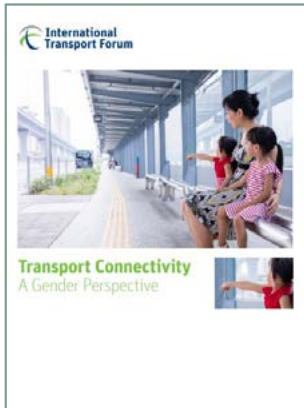
Driving toward Equality: Women, Ride-Hailing, and the Sharing Economy

International Finance Corporation (2018)



Making Transport Work for Women and Men: Challenges and Opportunities in the Middle East and North Africa—Lessons from Case Studies

World Bank Group (2012)



Transport Connectivity: A Gender Perspective

International Transport Forum (2019)



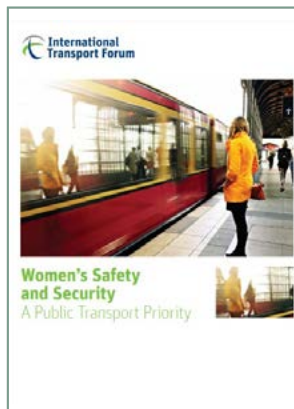
The Impact of the Future of Work for Women in Public Transport

International Transport Workers' Federation (Wright 2019)



She Moves: Women's Issues in Transportation

European Union (2014)



Women's Safety and Security: A Public Transport Priority

International Transport Forum (2018)

References

- Acker, Ashley, and Wei-Shiuen Ng. 2018. "Understanding Urban Travel Behaviour by Gender for Efficient and Equitable Transport Policies." International Transport Forum Discussion Papers 2018/01, Organisation for Economic Co-operation and Development, Paris. <https://doi.org/10.1787/eaf64f94-en>.
- ActionAid. 2014. Safe City for Women Baseline. <http://actionaid.org.br/publicacoes/linha-de-base-campanha-cidades-seguras-para-as-mulheres/>.
- Ahmed, Aroosa. 2018. "Women Commuters Want More Ladies Special Trains in Mumbai." *Hindustan Times*, May 13. <https://www.hindustantimes.com/mumbai-news/women-commuters-want-more-ladies-special-trains-in-mumbai/story-7DLguqPQARzV9UpXuhEsVK.html>.
- Allen, Heather. 2018. "Approaches for Gender Responsive Urban Mobility. Module 7a Sustainable Transport: A Sourcebook for Policy-Makers in Developing Cities." GIZ-SUTP (Sustainable Urban Transport Project), Bonn and Eschborn, Germany, May. https://www.sutp.org/files/contents/documents/News/2018%20May/TUMI_SUTP_GIZ_Module%20Gender%20and%20Transport%202018.pdf.
- Aloul, Sahar, Randa Naffa, and May Mansour. 2018. "Gender in Public Transportation. A Perspective of Women Users of Public Transportation." SADAQA and Friedrich-Ebert-Stiftung, Amman, Jordan.
- Amos, Ikwap. 2016. "Safaricom's Little Cab Has Introduced a Female Only Service." *iAfrikan*, July 8. <https://www.iafrikan.com/2016/07/08/safaricom-small-cab-has-introduced-a-female-drivers-only-service-2/>.
- Asia News. 2013. "After Six Months, Jakarta Commuter Rail Drops Women-Only Trains." May 14. <http://www.asianews.it/news-en/After-six-months,-Jakarta-commuter-rail-drops-women-only-trains-27915.html>.
- Babinard, Julie. 2011. "World Bank Gender Transport Surveys: An Overview." Transport Notes series TRN-43, World Bank, Washington, DC. <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTTRANSPORT/o,,contentMDK:20457194~menuPK:337136~pagePK:210058~piPK:210062~theSitePK:337116,00.html>.
- Bakran, Maja. 2018. "Travelling Safely: The EU Perspective." Discussion paper for the International Transport Forum Summit, Leipzig, Germany, May 23–25, session on Safe and Secure Transport for Women.
- Barkham, Patrick. 2009. "Court Case Threatens Women-Only Cab Firm." *Guardian*, May 8. <https://www.theguardian.com/uk/2009/may/09/women-cab-firm-pink-ladies-court-case>.
- Baruah, Bipasha. 2019. "Sticky Floors and Glass Ceilings: Women's Employment in the Transport Sector" in "Transport Connectivity: A Gender Perspective." OECD Publishing, Paris. <https://www.itf-oecd.org/sites/default/files/docs/transport-connectivity-gender-perspective.pdf>.
- BBC. 2013. "Indonesia City to Ban Women 'Straddling Motorbikes.'" January 3. <https://www.bbc.com/news/world-asia-20896966>.
- . 2015. "Indonesian District Bans Unwed Couples from Motorbike Sharing." May 5. <https://www.bbc.com/news/world-asia-32598761>.
- . 2017. "Labour MP Faces Backlash over Women-Only Carriages Idea." August 23. <https://www.bbc.com/news/uk-politics-41028234>.
- . 2019. "People Fixing the World: Bangladesh's Biker Girls." August 13. https://www.bbc.co.uk/programmes/p07k71n?ocid=socialflow_facebook&fbclid=IwAR314zMIPaxCSLxfGuz_ZOjb-fdnttUT6eYXuRnw_COXWSwkK_DX3XvxWYA.
- Bhatt, Priyanka. 2018. "World's First 'Ladies Special' Train in Mumbai Completes 26 Years." *Indiatimes.com*, May 5. <https://www.indiatimes.com/news/india/world-s-first-ladies-special-train-in-mumbai-completes-26-years-344811.html>.
- Borker, Girija. 2018. "Perceived Risk of Street Harassment and College Choice of Women in Delhi." *VoxDev*. <https://voxdev.org/topic/health-education/perceived-risk-street-harassment-and-college-choice-women-delhi>.
- Brady, Kate. 2016. "Opinion Divided over Women-Only Train Compartments on Eastern German Route." *Deutsche Welle*, April 16. <https://www.dw.com/en/opinion-divided-over-women-only-train-compartments-on-eastern-german-route/a-19192346>.
- Butt, Anam Parvez, and Sharnaya Sekram. 2019. "Smashing Spatial Patriarchy." Research report, Oxfam International, Oxford, UK. <https://oxfamilibrary.openrepository.com/bitstream/handle/10546/620845/smashing-spatial-patriarchy-gender-based-violence-public-transport-sri-lanka-230719-en.pdf?sequence=1&isAllowed=y>.
- Carvajal, Karla González, and Muneeza Mehmood Alam. 2018. "Transport Is Not Gender-Neutral." *World Bank Blogs*, January 24. <https://blogs.worldbank.org/transport/transport-not-gender-neutral>.

- Chughtai, Alia. 2019. "Easy Rider: Motorcycles Help Pakistani Women Bypass Harassment." *Al Jazeera*, December 3. <https://www.aljazeera.com/ajimpact/easy-rider-motorcycles-pakistani-women-bypass-harassment-191202193749626.html>.
- City of Mexico. 2019. "Gender and Mobility Strategy." <https://semovi.cdmx.gob.mx/storage/app/media/estrategia-de-genero-140319.pdf>.
- Constantine, Giles. 2014. "Women-Only Carriages in São Paulo Metro Trains: The Solution to Harassment?" *Eye on Latin America*, July 8. <https://eyeonlatinamerica.com/2014/07/08/women-only-sao-paulo-trains-harassment/>.
- Cook, Cody, Rebecca Diamond, Jonathan Hall, John A. List, and Paul Oyer. 2018. "The Gender Earnings Gap in the Gig Economy: Evidence from over a Million Rideshare Drivers." Working Paper 3637, Stanford Graduate School of Business, Palo Alto, CA. <https://www.gsb.stanford.edu/faculty-research/working-papers/gender-earnings-gap-gig-economy-evidence-over-million-rideshare>.
- Corder, Josh. 2019. "The First Women's Car Club Has Opened in Saudi Arabia." *Esquire Middle East*, June 19. <https://www.esquireme.com/content/35598-a-year-on-how-is-saudi-arabia-getting-on-with-women-drivers>.
- Crane, R. 2007. "Is There a Quiet Revolution in Women's Travel? Revisiting the Gender Gap in Commuting." *Journal of the American Planning Association* 73 (3): 298–316.
- Curzi, Yasmin. 2017. "Brazil: Women-Only Carriages in Rio's Subways: Safe Spaces for Women or Institutionalized Inequality?" *Stop Street Harassment*, June 5. <http://www.stopstreetharassment.org/2017/06/brazil-women-carriages/>.
- Daha, Huma. 2014. "Assessing Female Mobility in Lahore—A Step towards Sustainability." World Bank Group, Washington, DC.
- Davison, Tamara. 2019. "Sexual Harassment Continues in Transport System despite Women-Only Carriages." *Latin America Reports*, March 14. <https://latinamericareports.com/women-only-metro-carriages-do-not-fully-solve-the-crisis-of-harassment/1393/>.
- Duchène, Chantal. 2011. "Transport et parité des sexes." Document de référence 2011-11, Forum International des Transports, Paris.
- European Union. 2014. "She Moves: Women's Issues in Transportation." Brussels, Belgium. https://wiit-paris2014.sciencesconf.org/conference/wiit-paris2014/pages/shemoves_wiit_web_3.pdf.
- Fahmy, Amel, Angie Abdelmonem, Enas Hamdy, Ahmed Badr, and Rasha Hassan. 2014. "Towards a Safer City—Sexual Harassment in Greater Cairo: Effectiveness of Crowdsourced Data." HarassMap, Cairo. https://harassmap.org/storage/app/media/uploaded-files/Towards-A-Safer-City_executive-summary_EN.pdf.
- Fatima, Quratulain. 2019. "How a Women-Only Park Became a Safe Space from Harassment." *Apolitical*, September 16. https://apolitical.co/solution_article/how-a-women-only-park-became-a-safe-space-from-harassment.
- Fenson, Zoe. 2019. "Why Women-Only Spaces Still Matter." *The Week*, February 22. <https://theweek.com/articles/817555/why-womenonly-spaces-still-matter>.
- Godfrey, Jodi, and Robert L. Bertini. 2019. "Attracting and Retaining Women in the Transportation Industry." Mineta Transportation Institute Report WP 1901, San José State University, California. <https://transweb.sjsu.edu/sites/default/files/1893-Godfrey-Attract-Retain-Women-Transportation.pdf>.
- Gómez, Lara M. 2000. "Gender Analysis of Two Components of the World Bank Transport Projects in Lima, Peru: Bikepaths and Buses." World Bank internal report, World Bank, Washington, DC.
- Goodyear, Sarah. 2015. "More Women Ride Mass Transit Than Men. Shouldn't Transit Agencies Be Catering to Them?" *CityLab*, January 30. <https://www.citylab.com/transportation/2015/01/more-women-ride-mass-transit-than-men-shouldnt-transit-agencies-be-catering-to-them/385012/>.
- Graglia, Amy Dunckel. 2014. "Gendered Nature of Women's Mobility: A Gender Perspective for Analyzing Women's Issues in Public Transportation in Mexico City, Mexico." 5th International Conference on Women's Issues in Transportation, Paris, April 14–16, 393–402.
- Guo, P., Tang, C., Tang, Y., & Wang, Y. 2018. *Gender-based operational issues arising from on-demand ride-hailing platforms: Safety concerns, service systems, and pricing and wage policy*. <https://www.anderson.ucla.edu/faculty-and-research/anderson-review/uber-gender>.
- Hirst, Lauren. 2015. "Pink Ladies Forced to Put Brakes on 'Lifeline' Service." *Warrington Guardian*, January 7. <https://www.warringtonguardian.co.uk/news/11706472.pink-ladies-forced-to-put-brakes-on-lifeline-service/>.
- Hochman, David. 2018. "Women-Only Co-Working Spaces Are the Newest Rage in the #MeToo Age." *CNBC*, updated May 29. <https://www.cnb.com/2018/05/14/women-only-co-working-spaces-are-newest-rage-in-metoo-age.html>.

IFC (International Finance Corporation). 2018. *Driving toward Equality: Women, Ride-Hailing, and the Sharing Economy*. Washington, DC: IFC. https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/gender+at+ifc/drivingtowardequality.

— — —. Forthcoming A. "Understanding the Dynamics of Gender Segregated Transport." Draft report, October 6. IFC, Washington, DC.

— — —. Forthcoming B. "Women and Ride-Hailing in Sri Lanka." IFC, Washington, DC.

ILO (International Labour Organization). 2017. *World Employment Social Outlook: Trends for Women 2017*. Geneva: ILO. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_557245.pdf.

ITF (International Transport Forum). 2018. "Women's Safety and Security: A Public Transport Priority." OECD Publishing, Paris.

— — —. 2019. "Transport Connectivity: A Gender Perspective." OECD Publishing, Paris. <https://www.itf-oecd.org/sites/default/files/docs/transport-connectivity-gender-perspective.pdf>.

Jacobo, Julia. 2019. "Uber Launches Feature That Lets Female Drivers in Saudi Arabia Avoid Taking Male Passengers." ABC News, April 17. <https://abcnews.go.com/International/uber-launches-feature-lets-female-drivers-saudi-arabia/story?id=62455985>.

Jang, Lina. 2016. "Curzi Tests Women-Only Subway Cars." *Koreabizwire*. <http://koreabizwire.com/korea-tests-women-only-subway-cars/58319>.

Japan Experience. 2018. "Women Only Cars in Trains." January 19. <https://www.japan-experience.com/to-know/visiting-japan/women-only-cars-in-trains>.

Jayaram, Deepika. 2018. "Is She Taxi Getting Edged Out in the Online Taxi Boom?" *Times of India*, Kochi edition, May 26. <https://timesofindia.indiatimes.com/city/kochi/is-she-taxi-getting-edged-out-in-the-online-taxi-boom/articleshow/64329020.cms>.

Jinman, Richard. 2015. "The Shame of Walking into a Women-Only Car by Mistake." *Independent*, August 26. <https://web.archive.org/web/20181027131102/https://www.independent.co.uk/voices/comment/the-shame-of-walking-into-a-women-only-car-by-mistake-10473702.html>.

Karangutkar, Suyash. 2018. "Why Ladies Special Railway Trains Are a Boon to Mumbai Women." *Mid-Day*, May 6. <https://www.mid-day.com/articles/why-ladies-special-railway-trains-are-a-boon-to-mumbai-women/19393182>.

Kasoolu, Semiray, Ricardo Hausmann, Tim O'Brien, and Miguel Angel Santos. 2019. "Female Labor in Jordan: A Systematic Approach to the Exclusion Puzzle." CID Harvard University Working Paper 365, Center for International Development at Harvard University, Cambridge, MA. <https://growthlab.cid.harvard.edu/files/growthlab/files/2019-10-cid-wp-365-female-labor-jordan.pdf>.

Kaufman, Sarah M., Christopher F. Polack, and Gloria A. Campbell. 2018. "The Pink Tax on Transportation: Women's Challenges in Mobility." Rudin Center for Transportation, New York University. https://wagner.nyu.edu/files/faculty/publications/Pink%20Tax%20Report%2011_13_18.pdf.

Kerpen, Carrie. 2019. "Do Women-Only Spaces Still Matter?" *ForbesWomen* (blog), June 25. <https://www.forbes.com/sites/carriekerpen/2019/06/25/do-women-only-spaces-still-matter/#12cb6f7034e9>.

Kohli, Sharad. 2019. "As Park Turns 'Women Only,' Is This the Solution for Unsafe Public Spaces? Decoding the Debate." *Times of India*, June 9. <https://timesofindia.indiatimes.com/city/gurgaon/as-park-turns-women-only-is-this-the-solution-for-unsafe-public-spaces-decoding-the-debate/articleshow/69708485.cms>.

Kondylis, Florence, Arianna Legovini, Kate Vyborny, Astrid Zwager, and Luiza Andrade. 2020. "Demand for 'Safe Spaces': Avoiding Harassment and Stigma." Working paper, World Bank Group, Washington, DC. <http://documents.worldbank.org/curated/en/89060159118870117/pdf/Demand-for-Safe-Spaces-Avoiding-Harassment-and-Stigma.pdf>.


Kotikula, Aphichoke, Ruth Hill, and Wameq Azfar Raza. 2019. "What Works for Working Women: Understanding Female Labor Force Participation in Urban Bangladesh." World Bank, Washington, DC. <https://openknowledge.worldbank.org/bitstream/handle/10986/32535/What-Works-for-Working-Women-Understanding-Female-Labor-Force-Participation-in-Urban-Bangladesh.pdf?sequence=1&isAllowed=y>.

Loukaitou-Sideris, A. 2009. *How to Ease Women's Fear of Transportation Environments: Case Studies and Best Practices*. San José, CA: Mineta Transportation Institute, San José State University.

Manchester Evening News. 2010. "Pink Ladies Cabs Roll Out in UK." April 19. <https://www.manchestereveningnews.co.uk/business/business-news/pink-ladies-cabs-roll-out-971357>.

McCaffrey, Stephen. 2019. "Rosy and Pink Cars: Fact and Statement surrounding the Female-Only License Application." Taxi Point, May 13. <https://www.taxi-point.co.uk/single-post/2019/05/13/Rosy-and-Pink-Cars-Facts-and-Statement>.

- Mohapatra, Debabrata. 2017. "Private Buses Offer No Seats to Women." *Times of India*, March 31. <https://timesofindia.indiatimes.com/city/bhubaneswar/private-buses-offer-no-seats-to-women/articleshow/57946534.cms>.
- Monroe, Jack. 2017. "Don't Segregate Us in Women-Only Tube Carriages, Just Make Sure Travelling Is Safer." *Evening Standard*, Comment, August 25. <https://www.standard.co.uk/comment/comment/jack-monroe-don-t-segregate-just-make-sure-travelling-is-safer-a3620311.html>.
- The *National* (United Arab Emirates). 2019. "Dubai Metro to Move Women and Children's Pink Carriage." June 25. <https://www.thenational.ae/uae/transport/dubai-metro-to-move-women-and-children-s-pink-carriage-1.879044>.
- Navya, P. K. 2017. "Why We Must Still Reserve Seats for Women on Public Transport." *Citizen Matters*, October 5. <http://citizenmatters.in/reserved-seats-for-women-safety-on-public-transport-4901>.
- ÖBB. n.d. "Special Compartments." ÖBB Group website, accessed November 30, 2019. <https://www.oebb.at/en/reiseplanung-services/im-zug/spezialabteile.html>.
- Quiros, Tatiana Peralta, Shomik Raj Mehndiratta, and Maria Catalina Ochoa. 2014. "Gender, Travel and Job Access: Evidence from Buenos Aires." World Bank, Washington, DC, February 5. <http://siteresources.worldbank.org/INTURBANTRANSPORT/Resources/2014-Feb-5-Gender-and-Mobility.pdf>.
- Sánchez de Madariaga, Inés. 2013. "From Women in Transport to Gender in Transport: Challenging Conceptual Frameworks for Improved Policymaking." 2013. *Journal of International Affairs* 67 (1): 43–65.
- Sandelands, Drew. 2019. "Glasgow City Council Blocks Plans to Launch Female-Only Taxi Service." *Glasgow Evening Times*, May 10. <https://www.glasgowtimes.co.uk/news/17630414.female-only-taxi-service-stopped-by-glasgow-city-council/>.
- Sanghani, Radhika. 2015. "These Countries Tried Women-Only Transport. Here's What Happened." *Telegraph*, August 26. <https://www.telegraph.co.uk/women/womens-life/11824962/Women-only-trains-and-transport-How-they-work-around-the-world.html>.
- Shah, Narendra. 2016. "Why I Love Riding on the Women-Coach of Delhi Metro." *Metro Rail News* (blog), April 11. <https://www.metrorailnews.in/why-i-love-riding-on-the-women-coach-of-delhi-metro/>.
- Shah, Sonal. 2019. "Women-Only Transport: A Solution to What End?" *Sustainable Transport* 30, Institute for Transportation and Development, New York. <https://www.itdp.org/wp-content/uploads/2019/01/Women-only-Transport.pdf>.
- Solotaroff, Jennifer L., George Joseph, and Anne T. Kuriakose. 2017. "Getting to Work: Unlocking Women's Potential in Sri Lanka's Labor Force—Overview." World Bank, Washington, DC. <https://openknowledge.worldbank.org/handle/10986/28660>.
- Suciu, Elizabeth, Cecile Sadoux, and Dionisio Gonzalez. 2010. "More Women in Transport Can Only Mean Better Connectivity" in "Transport Connectivity: A Gender Perspective." OECD Publishing, Paris. <https://www.itf-oecd.org/sites/default/files/docs/transport-connectivity-gender-perspective.pdf>.
- Times of India*. 2018. "Women Cheer, Throng Reserved Metro Doors." February 20. <https://timesofindia.indiatimes.com/city/bengaluru/women-cheer-throng-reserved-metro-doors/articleshow/62991644.cms>.
- Turnbull, Peter. 2013. "Promoting the Employment of Women in the Transport Sector: Obstacles and Policy Options." ILO Working Paper 298, International Labour Organization, Geneva.
- Uber Team. 2019. "Uber Launches "Women Preferred View" Feature for Women Drivers in Saudi Arabia." Uber Newsroom, April 15. <https://www.uber.com/en-SA/newsroom/saudi-preferred-view-en/>.
- UNFPA (United Nations Population Fund). 2017. "Sexual Harassment on Public Buses and Trains in Sri Lanka." Population Matters Policy Issue 04, UNFPA Sri Lanka, Colombo, March. https://srilanka.unfpa.org/sites/default/files/pub-pdf/FINAL%20POLICY%20BRIEF%20-%20ENGLISH_o.pdf.
- UN Women. 2017. "UN Women and the Government of Mexico City Launch the Campaign #NoEsDeHombres to Tackle Sexual Harassment in Public Transport." UNWomen.org website, April 3. <https://www.unwomen.org/en/news/stories/2017/4/press-release-un-women-and-government-of-mexico-city-launch-noesdehombres>.
- U.S. Census Bureau. 2017. "American Factfinder. Table S2401: Occupation by Sex for the Civilian Employed Population 16 Years and Over 2017." American Community Survey 1-Year Estimates, Tables QT-P27 and S2401.
- Wee, Sui-Lee, and Giulia Marchi. 2018. "China's Women-Only Subway Cars, Where Men Rush In." *New York Times*, March 4. <https://www.nytimes.com/2018/03/04/business/china-women-only-subway-cars.html>.
- Wellenstein, Anna, and Maninder Gill. 2019. "Making infrastructure work for both women and men." World Bank, Washington, D.C. <http://blogs.worldbank.org/voices/making-infrastructure-work-both-women-and-men>.



Welsh, Mandy. n.d. "Keep Our Females Safe: Support Rosy and Pink Cars." Crowdfunder. <https://www.crowdfunder.co.uk/622962f95dodco1171954556c154670b>.

World Bank. 2019a. "Women, Business and the Law 2019: A Decade of Reform." World Bank, Washington, DC. <https://openknowledge.worldbank.org/bitstream/handle/10986/31327/WBL2019.pdf?sequence=4&isAllowed=y>.

World Bank. 2019b. "Non-discrimination: Sexual Orientation and Gender Identity." WBG good practice note, World Bank Group, Washington, DC.

World Bank Group. 2012. "Making transport work for women and men: challenges and opportunities in the Middle East and North Africa region—lessons from case studies." <http://documents.worldbank.org/curated/en/220381468278678436/Making-transport-work-for-women-and-men-challenges-and-opportunities-in-the-Middle-East-and-North-Africa-MENA-region-lessons-from-case-studies>.

Wright, Tessa. 2019. "The Impact of the Future of Work for Women in Public Transport." International Transport Workers' Federation and Freidrich-Ebert-Stiftung, London. <https://www.itfglobal.org/en/reports-publications/impact-future-work-women-in-public-transport>.

Zhen, Liu. 2017. "Why Are 'Women Priority' Carriages on China's Subway Being Overrun by Men?" *South China Morning Post*, July 3. <https://www.scmp.com/news/china/society/article/2101039/why-are-women-priority-carriages-chinas-subway-being-overrun-men>.

PHOTO CREDITS:

Images used under license from Shutterstock.com



2121 Pennsylvania Avenue, N.W.
Washington, D.C. 20433

[ifc.org](https://www.ifc.org)



Creating Markets, Creating Opportunities

June 2020