Sustainable E-Hailing Mobility Services in Nigerian Cities: Issues and Policy Direction

STANLEY OJEKERE[1], OLAJIDE OJO[2], DANIELLA MKPANDIOK[3]

[1, 2] *Department of Urban and Regional Planning, Faculty of Environmental Design and Management, University of Ibadan, Ibadan, Nigeria.*

[3] *Department of Statistics, Faculty of Science, University of Ibadan, Ibadan, Nigeria.*

Abstract- The emergence of e-hailing services has started to play an important role in the mobility of goods and people in most Nigerian cities. The e-hailing platform connects individual drivers to potential users. Taking advantage of the country's underdeveloped urban public transport system, high population, and rapid urbanization, the e-hailing mobility services have now grown exponentially from two (2) operators in 2014 to twenty-six (26) operators by 2022 across Nigeria's major cities. However, where the regulatory framework is yet to be determined in many cities across Nigeria, the e-hailing services are now faced with significant operational challenges, which threaten their sustainability. The study adopted a desk research method and examined the mode of operation and issues of e-Hailing mobility services in Nigerian cities. It suggested strategies to enhance sustainable e-hailing services in Nigeria's cities.

Indexed Terms- E-Hailing; Mobility; Services; Issues; Policy Direction; Sustainability

I. INTRODUCTION

Urban public transport in Nigerian cities has witnessed tremendous reformation between 1900 and 2020. The cities have experienced commercial buses (danfo) and cars (taxi) with the yellow signature color and the ramshackle molue, which were the predominant means of public transportation in Nigerian cities. Before the ride-hailing apps, transport was not always easy to come by. Passengers had to flag down cabs on the road or go to the nearest taxi park to get a car (21, 22). The emergence of e-hailing services has started to play an important role in the mobility of goods and people in most Nigerian cities (3). The e-hailing services are made up of car, tricycle, and motorcycle services where fleets are owned by the individual operators. Whereas the responsibility of the e-hailing platform is to connect individual drivers to potential drivers. Taking advantage of the country's underdeveloped public transport system, high population, and rapid urbanization, the e-hailing services have now grown exponentially from two (2) operators in 2014 to twenty-six (26) in 2019, many of whom have started operations in Nigeria's major cities. By the end of 2020, the country's digital ride-hailing or e-hailing market is estimated to generate USD 292 million in revenue and account for 15% of the African continent's 48.6 million e-hailing user base (1), (2). Since its inaugural launch in 2014, ridesharing platforms have made urban transport more comfortable and convenient for Nigerians.

- Statement of Problem

In recent years, unprecedented government policies have threatened the survival or total obliteration of the players in Nigeria's e-hailing ride-sharing space (3). The e-hailing mobility services in Nigerian cities are faced with peculiar challenges, especially now that the regulatory framework is yet to be determined. Initial attempts at regulating the ride hailing industry have proven contentious, leading to tensions between providers and regulators in Nigeria's cities (9). Furthermore, there were reported cases of National Union of Road Transport Workers (NURTW) officials preventing some e-hailing mobility service providers from making stops for pickups at some bus terminals along their routes (3). Disparities in regulation between traditional taxi cabs and e-hailing operators have raised tensions, and the government's proposed licensing requirements as well as the proposed 10% tax on e-hailing trip transactions are likely to apply significant pressure to both the sustainability of e-hailing business models and rider livelihoods (9). There have been reported incidences of car theft,

kidnapping, and even the death of drivers and passengers. Other challenges are the issue of unstable internet connectivity while initiating an e-hailing transaction and completing the same successfully. Due to internet fraud, most drivers preferred not to make payment for the e-hailing services through their online mobile banking app but preferred to make cash payment, which has negated the smart city innovation of e-hailing services (2).

- Aim

The aim of this study is to examine the operations and issues of e-Hailing mobility services with a view to boosting the sustainability of e-hailing mobility services in Nigerian cities.

- Research Questions
1. What is the mode of operation of e-hailing mobility platforms in Nigeria's cities?
2. Are there issues with e-hailing mobility services in Nigerian cities?
3. What are the opportunities for sustaining e-hailing mobility services in Nigerian cities?

II. METHODOLOGY

This study adopted the desk research review method. In this method, an internet search engine was utilized to search for published articles and journals relevant to the theme of the study – e-hailing and shared urban mobility. After the search, a total of 25 articles were found, out of which twenty-three (23), which met the eligibility criteria for the study, were used for the review. Eligibility criteria were published articles on e-hailing mobility and urban public transport between 2014 and 2022. Articles which did not meet these criteria were excluded from the review. The review cut across the mode of operations of e-hailing mobility services, issues, policies, regulations, and strategies to enhance sustainable e-hailing mobility services in Nigeria's cities.

- Mode of Operations of E-hailing Mobility Platforms in Nigerian Cities

E-hailing, or ride-sourcing, services have been a major innovation in the transport sector in the past decade and are rapidly changing how we travel – especially in urban areas, Nigerian cities inclusive. E-hailing refers to the process of ordering a car, taxi, or any other mode of transportation by way of a computer or mobile device. "E" here refers to "electric" and "hail" means the traditional process of signaling an approaching taxi cab to stop (11). These e-hailing service providers, also known as Transportation Network Companies (TNCs), use an online, information technology-enabled platform to connect available car or taxi drivers and potential passengers. This usually occurs in real time, resulting in the efficient, convenient, quick, and transparent procurement of the passenger ride service (10). It is a form or type of ridesharing that makes use of websites and mobile apps to match passengers with drivers of vehicles for hire that, unlike taxicabs, cannot legally be hailed from the street (5).

Generally, the service is accessed via a mobile app. Users set up a personal profile with a name, phone number, other information, and payment preference, which could be a credit card, e-commerce payment system, or, in some cases, cash. After the service is complete, the customer may be given the option to provide a gratuity to the rider, which is also billed to the customer's payment method (6), (7), & (8).

Most drivers are independent contractors under the e-hailing mobility services platform. Drivers provide a vehicle, which could be owned, rented, or leased. Drivers should meet requirements for age, health, car age and type, have a valid driver's license and a smartphone or tablet, and may be required to pass a background check in order to be deemed eligible to operate (7) or (8).

Drivers pay a commission as a proportion of the trip fee to the e-hailing provider. Fare systems are dynamic and are adjusted by an algorithm based on demand and supply for trips. Simply put, if demand outstrips supply at a given time in a given location, drivers will be charged more — and drivers will earn more. After each trip/transaction, drivers and customers may rate each other, and users with low ratings may be deactivated (1).

E-hailing mobility platforms in Nigerian cities can be grouped into two categories. This includes a ''service entity" and a "taxi and app operator." Service entities are entities that only provide the platform for users and drivers to connect, while taxi and app operators are

service providers who own and operate both the vehicle and the hailing platform (13) (see Table 1). E-hailing mobility services come in different forms in Nigerian cities. Two-wheel motorcycles (Okada) and three-wheel tricycles (keke NAPEP) are popular alternatives to the more conventional taxi services. Other includes cabs, taxis, bus services, etc. (2).

Nigeria's e-hailing market is dominated by three major players, which service the bulk of users in the country. These are Uber, GIGM, and Bolt, and they presently control over 90% of the e-hailing market share across Nigerian cities.

Table1: E-hailing Mobility Platforms in Nigerian Cities

S/N	E-hailing Mobility Platforms	First appearance (year)	Cities of operations	Business Model
1	Uber	2014	Lagos, Abuja and Benin City	Service entity
2	Jekalo	2015	Lagos	Service entity
3	Afrocab	2015	Lagos, Abuja	Service entity
4	Gomyway	2015	Lagos	Service entity
6	Holy cab	2016	Lagos	Service entity
7	Palmdrive	2016	Lagos	Service entity
8	GIG Mobility	2016	Lagos, Abuja, Port Harcourt etc.	Taxi and app operator
9	Oga Taxi	2016	Lagos	Service entity
10	Bolt (taxify)	2017	Lagos, Ogun, Ibadan, Benin City, Owerri	Service entity
11	Mycabman	2016	Abuja, Enugu and Calabar	Service entity
12	Gokada	2017	Lagos	Service entity
13	Max	2017	Lagos	Service entity
14	SafeBoda	2017	Lagos, Ogun, Ibadan	Service entity
15	Oride	2017	Lagos, Ogun, Ibadan	Service entity
16	Smartcab	2017	Lagos	Service entity
17	RideMe Taxi	2018	Lagos	Service entity
18	GidiCab	2019	Lagos	Service entity
19	Carxie	2019	Lagos	Service entity
19	InDriver	2019	Lagos	Service entity
20	Naijacab	2019	Benin City	Service entity
21	Plenty waka	2019	Lagos	Taxi and app operator
22	Ekocab	2020	Lagos	Service entity
23	Solride	2020	Lagos	Service entity
24	Rida	2020	Benin, Lagos, Uyo and Abuja	Service entity
25	LagosRide	2021	Lagos	Taxi and app operator
26	Africar	2022	Ibadan	Taxi and app operator

Source: Ojekere, Ojo and Mkpandiok (2022).

• Issues in E-Hailing Mobility Services in Nigerian Cities

Policy Regulation

E-hailing mobility services are relatively new in Nigeria compared to other developed countries that have evolved policies to guide the operation of e-hailing service providers. One of the initial policy debates about e-hailing mobility services was whether the latter should be addressed as a public or private sector service, with (14) describing it as an individual sector. However, regulatory bodies in Nigeria see e-hailing as a public transport system. To this end, e-hailing operators are required to obtain the following registrations in Lagos state: A Lagos State Drivers' Institute (LASDRI) card and a rider badge; a hackney permit; and other regular government papers for car

registration issued by the Department of Public Transport and Commuter Services of the Lagos State Ministry of Transportation All of these registrations are expected to cost about N200, 000 (about 525 USD) (15). On the e-hailing company's side, they are to part with N20 per trip and pay operating and renewal license fees of 10 million NGN ($25,814) for every 1,000 e-hailing taxis and an annual renewal fee of 5 million NGN ($12,907) (16). Similarly, taxi and app operators with 50 or fewer cabs are expected to pay a 5 million license fee, while those with more than 50 cabs are expected to pay a 10 million license fee. The former will pay an annual renewal of 1.5 million (approx. US$3,870), while the latter will renew at 3 million (approx. US$7,700) (11). In other states in Nigeria, they are yet to come up with a blue print on e-hailing mobility services. Besides, on the side of e-hailing companies, there are no clear policies on how they administer drivers, as the drivers complain of taking unilateral decisions, fixing inequitable commissions for themselves, having unhealthy trip fares, and denying them the right to belong to a union. More so, e-hailing service providers blocked drivers at will without regard to their hiring status, showed no empathy to drivers in times of emergency, lost lives while on active trips, and engaged in numerous other unethical business practices (17). Another issue policy should address is the area of training, sensitization, and accountability systems for drivers. This issue, though, was initially addressed when the number of drivers was still limited. However, with an exponential daily increase in the number of drivers added to the e-hailing platform, it is becoming increasingly difficult to keep up with a robust training, sensitization, and accountability system for drivers (20).

III. TECHNOLOGY

The e-hailing mobility services are powered by mobile applications enabled by internet connectivity. One of the major challenges is poor and unstable internet connectivity in Nigerian cities (18). The work of the app is to connect drivers and drivers together. The internet is frequently insufficient to support the heavy graphic mapping applications used by e-hailing service providers. Hence, services are either not rendered or not satisfactorily rendered. In 2020, Nigeria had 99.05 million internet users, which amounted to 46.6 percent of the population in 2020.

Technology has basically excluded about 54.4% of Nigerians who do not have access to the internet (18).

- Unhealthy rivalry among competitors

Apart from similar e-hailing company platforms, in Nigeria, the e-hailing industry is up against the long-established National Union of Road Transport Workers (NURTW), which sees itself as having exclusive rights to every passenger on the road. There were reported cases of National Union of Road Transport Workers (NURTW) officials at bus stops preventing e-hailing cars, tricycles, motorcycles, and buses from making stops for pickups at some bus terminals along their routes (3).

- Unethical driver's behavior

The attitudes and behavior of some of the e-hailing drivers are impolite. With the expansion and growth of e-hailing businesses, there has been a corresponding increase in rider misconduct and bad behavior. This was noticed by dredging up cases that range from simple misconduct to outright life-threatening; fare manipulation, rudeness, assault, theft, abuse; the list is seemingly endless (19).

- Multi-homing

Multi-homing refers to the practice where one rider is found to operate on more than one ride hailing platform at a time. "Most times, it's the drivers that you find on Uber that are still on Taxify." Most of them were forced onto these platforms by the harsh economy to make ends meet, and then they ended up taking out their frustration and anger on passengers (19).

- Payment gateway and trust issues

With increasing incidences of internet fraud, this has brought about trust issues among drivers who are skeptical about registering their debit or credit card details on e-hailing platforms. The effect of this is the negation of the advantage of electronic payment, as most drivers prefer to pay cash (2).

- Safety

The e-hailing mobility service was designed to be safe and secure. However, with the incursion of many drivers into the system and the inability of the e-hailing companies to properly scrutinize them, we

began to hear about unwholesome experiences, including sexual molestation, kidnapping, etc. (3). Safety for both operators - drivers and riders are not fully resolved. Many of the operators are regularly killed and their vehicles were stolen (23).

Key Findings from the Review
- The current regulatory framework for the e-hailing industry stifles the sector, especially for home-grown products.
- There is a lack of frameworks or systems for keeping drivers and passengers alike safe when they use ride-hailing apps.
- Unsecured gateways, where sometimes dubious passengers send drivers fake payment alerts,
- Drivers were treated as independent contractors, which led to many of them earning less than the minimum wage and putting in a lot of overtime.

IV. DISCUSSION

- Opportunity for Enhancing Sustainable E-Hailing Mobility Services in Nigerian Cities

Based on the salient issues that have arisen from the review conducted, it seems fitting that the following recommendations be put forward in the interest of the sustainability of e-hailing mobility services in Nigerian cities.

Shared mobility under the umbrella of e-hailing is the future of public transport in Nigerian cities. In view of this, government regulations should be made inclusive such that the players in a sector are given an equal opportunity to enter the sector by regulators. This will help to strengthen the sector and boost its economic viability in Nigeria's cities. This will also help to bolster homegrown start-ups in this sector. Regulatory policies that are non-inclusive will retard the sector.

Literacy is required for all registered drivers and drivers on e-hailing mobility platforms. In addition, drivers must be trained periodically on emerging trends in e-hailing mobile app usage, safety and health in the sector. There should be a minimum level of education, i.e., secondary education, for drivers and for those to be recruited into this sector.

The Internet and mobile technologies are having a great impact on how we live our lives at the moment. However, about 41% of urban dwellers across Nigerian cities lacked inclusive internet connectivity and smartphone need to use e-hailing mobility services. App-based technology and inclusive access to smartphones and internet connectivity are germane to the enhanced growth of e-hailing mobility services in most cities in the world, Nigerian cities inclusive.

Since the e-hailing mobility platform was first launched in Nigeria in 2014, many players have emerged in the industry, thereby making it very competitive. Sadly, unhealthy price competition can be destructive for the e-hailing mobility sector, especially as they are directly competing with existing traditional taxi and car services for both customers and drivers. However, healthy and sustained competition is required, as it will allow users to take advantage of efficient services, compare commuter fares and other personalized incentives.

There is a need for e-hailing mobility companies to improve drivers' and passengers' welfare and social protection packages. This will reduce the level of multi-homing—a situation where a driver operates on multiple e-hailing platforms in a bid to ensure a steadier stream of work or to further supplement their income. In Nigeria, no fewer than 38% of the drivers are active on more than one e-hailing platform. Better working conditions such as pension services, medical/health insurance, performance incentives, etc., will be crucial to enhance the sustainability of the sector across Nigerian cities.

There is a need to create a clear and trustworthy value proposition with respect to payment gateways in the e-hailing mobility platforms across Nigerian cities. When trust is lacking, it affects the extent to which certain services can be accepted by people. To this end, the wallet e-payments infrastructure should be embedded in e-hailing mobile apps, which support allowing users to recharge such wallets just like mobile telecommunications. This will allow for services to be paid in a safe, secure, and smart manner. The safety and health of both drivers and users is critical to the long-term viability of the e-hailing sector in Nigerian cities. The work model should be made flexible such that it will allow drivers to work for a

specific duration of hours after which they will no longer be able to take orders using the e-hailing mobile app. This is crucial because there have been concerns that extended work hours will lead to health and safety risks to drivers and their families. Furthermore, all drivers operating under the new regime will now be subject to certain safety and operational standards under the new Lagos State guidelines of 2020. Drivers are now subject to maintaining certain minimum standards of cleanliness, including but not limited to sanitary standards on the interior and exterior of the vehicle (13).

CONCLUSION

This review is not by any means exhaustive; how it has identified salient issues in the e-hailing mobility sector across Nigerian cities, including; lack of regulatory framework; drivers' misconduct; technology; unhealthy rivalry among competitors; multiple homing; payment gateway and trust issues; etc. as e-hailing mobility service challenges in Nigeria. It advocates the development of a comprehensive policy to address all of these issues because they are shared by each state government in Nigeria. In doing so, a stakeholders' workshop should be organized, where the concerns of all parties should be addressed and mainstreamed into a more inclusive regulatory policy framework. Achieving this will consequently enhance the prospect of the sustainability of e-hailing mobility services in Nigerian cities.

- Conflicts of Interest: The authors declare none conflicts of interest.
- Acknowledgement: This study was self-founded.

REFERENCES

[1] Statista, (2020). E-hailing in this sense includes all online and offline booking channels that connect Passengers and drivers.

[2] Johnson, C., Dunn, M., Sack, H., (2020). Livelihood experiences of Nigeria's e-hailing Workers Focus note. Cenfri. Pg. 1-15. Available at: https://cenfri.org/wp-content/uploads/FINAL_Nigeria-e-hailing-note_Aug-2020.pdf

[3] Oseni, O., (2021). Surviving the hurdles: An insight into the ride-hailing industry in Lagos. Avialable at; https://smepeaks.com/2020/08/13/surviving-hurdles-insight-bus-hailing-industry-lagos/

[4] Dickenson, G., (2018). "How the world is going to war with Uber". The Daily Telegraph.

[5] Statista, (2021). Ride-Hailing & Taxi. Available at; https://www.statista.com/outlook/mmo/mobility-services/ride-hailing-taxi/united-kingdom#user-demographics

[6] Georgia, W., Douglas, M., (2016). "Uber, Lyft Drivers Need Business Licenses to Operate in San Francisco". The Wall Street Journal. ISSN 0099-9660.

[7] Davey, A., (2015). "Uber unveils app update to help its deaf drivers". Wired.

[8] Andrew, J. H., (2019). "Uber will now deactivate drivers with below average ratings". The Verge.

[9] Banya, R., Johnson, C., & Carboni, I., (2020). Nigeria's proposed e-hailing tax could stifle innovation and dampen gig workers' livelihoods. Available at; https://cenfri.org/articles/e-hailing-tax-and-gig-workers-livelihoods/

[10] Shaheen, S., Chan, N., Bansal, A., Cohen, A., 2015. Shared Mobility: Definitions, Industry Developments, and Early Understanding Bikesharing, Carsharing, On-Demand Ride Services, Ridesharing, Shared-Use Mobility. Available at; http://innovativemobility.org/?project=shared-mobility-definitions-industry-developments-and-early-understandin

[11] Dhawan, S., & Yadav, P., (2018). E- Cab Hailing: A Study on Consumer Behavior. Issn 2349-2317, Volume 9 Issue 3. Available at; http://www.elkjournals.com/

[12] Geloso, V., & Guénette, J., (2014). Ridesharing. Applications and the Future of Urban Transportation. Montreal Economic Institute.

[13] Templars news, (2020). Lagos State Commences Regulation of E-hailing Platforms. What is under the hood (or bonnet for Commonwealth English Speakers). Pg. 1-4. Available at; https://www.templars-law.com/wp-content/uploads/2020/08/Templars Newsletter-

Lagos-commences-regulation-of-E-Hailing-Taxi-Platforms.pdf

[14] Silvaa L., A. S, Andradea, O. M., & Leonor, M., Maiaa, A., (2017). How does the ride-hailing systems demand affect individual transport regulation? Accessed from https://core.ac.uk/download/pdf/212691345.pdf

[15] Omilana, T., (2020a). E-hailing drivers reject reviewed Lagos ride-hailing regulation. Accessed from https://guardian.ng/news/e-hailing-drivers-reject-reviewed-lagos-ride-hailing-regulation/

[16] Olowogboyega, (2020). A deep dive into the proposed guidelines for e-hailing companies in Lagos Accessed from https://techcabal.com/2020/08/11/guidelines-ehailing-lagos/#:~:text=So%2C%20one%20minor%20improvement%20is,%E2%82%A65%20million%20(%2412%2C907).

[17] Benjamin, A., (2020). E-hailing drivers plan to dump Uber, Bolt over unfavourable business practices. Accessed from https://guardian.ng/news/e-hailing-drivers-plan-to-dump-uber-bolt-over-unfavourable-business-practices/

[18] Omilana, T. (2020b). Why Nigerians Are Experiencing Slow Internet Service Lately. Accessed from https://guardian.ng/news/why-nigerians-are-experiencing-slow-internet-service-lately/

[19] Victor, E., (2019). The customer service problem of online taxi hailing services in Nigeria. Accessed from https://techpoint.africa/2019/02/28/online-taxi-hailing-in-nigeria/

[20] Banya, R., Cieslik, K., Davidwest, O., (2022). Driving for Platforms in Abuja and Lagos. Can E-hailing Platform Create Decent Jobs. Department off Geography, University of Cambridge, United Kingdom. Available at: https://www.researchgate.net/publication/362302879_Driving_for_platforms_in_Lagos_and_Abuja_can_e-hailing_create_decent_jobs

[21] Nowek, A., (2022). Transportation in South Africa: trains, buses, and taxis. Availability at; https://www.expatica.com/za/living/transportation/public-transportation-in-south-africa 105982/

[22] Sylvans, W., (2022). Ugochi Nwobodo: Lagos mom who defied Uber, Bolt to set-up ride-hailing service. https://nairametrics.com/2022/08/27/ugochi-nwobodo-lagos-mom-who-defied-uber-bolt-to-set-up-ride-hailing-service/

[23] Alade, B., (2020). Don tasks government on sustainability of e-hailing rides in Nigeria. Available at; https://guardian.ng/features/don-tasks-government-on-sustainability-of-e-hailing-rides-in-nigeria/