

Ride hailing and influences of other digital applications in Kenya's mobility September 2020

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## 1. Introduction

Kenya has had an average GDP growth rate of 5.59% per year over the last ten years (Central Bank of Kenya, 2020), the country is considered one of the fastest-growing economies in Sub-Saharan Africa (World Bank, 2020). This growth has been propelled by significant socio-economic, political and infrastructural reforms, which have positioned Kenya as a leading cargo hub for Eastern Africa (International Air Transport Association, 2019).

The transport sector in Kenya has expanded over time occasioned by heavy infrastructure investments from both local and international entities. Presently, the sector contributes about 8% to the Gross Domestic Product (GDP) of the country, making it the second highest contributor after agriculture, forestry and fishing at 34.2% (Kenya National Bureau of Statistics, 2019). In the last decade, the transport sector has seen modest growth and transformation driven by an ever-expanding infrastructure. This includes the revival of the old metre gauge rail network, construction of new commuter rail systems in Nairobi, construction of over 500 km of standard gauge railway, expansion and modernisation of aviation facilities, increased container handling capacity at the port of Mombasa, and the construction and rehabilitation of roads all around the country.

The public transport system is dominated by privately-owned public service vehicles which include buses and minibuses (known as matatus). These have capacities that range from 14 to 25 seaters and between 32 to 57 seaters. They are operated by corporate bodies known as Savings and Credits Cooperatives (SACCOs) who manage them on behalf of individual owners. For one to get into public transportation business, which in this context includes matatus and buses, one has to belong to a SACCO. The SACCO is then responsible for day to day operation of the vehicle and ensures compliances with all set public transport regulations. For an entity to qualify as a public transport SACCO, it has to own a fleet of not less than thirty vehicles registered as public service vehicles (PSVs) by the National Transport and Safety Authority (NTSA).

However, this management model is bound to change and will see the SACCOs being replaced by Matatu transport cooperatives, or Trans-Coops. This is fronted as a better management model that will allow for better industry coordination and will enhance compliance with transport industry regulations. According to a discussion paper by the Ministry of Industrialization, Trade and Enterprise Development (2019), the transition will "provide a platform from where PSV (public service vehicles) owners can conduct transport business to ensure provision of transport services in an organized manner through route and fleet management"; it will also seek to correct structural defects of the current SACCO model, especially taking into consideration the fact that SACCO by-laws do not cover route management.

Private taxi's (taxi cabs) and private hire vehicles on the other hand, are not mandated to belong to a SACCO prior to ferrying passengers for hire, they are, however, required to get public service vehicle certification, as well as undergo thorough inspection, before being allowed to operate.

Despite matatus and public buses in Nairobi being notoriously associated with road indiscipline, unstable prices and unreliable timings, they play a critical role in the facilitation of mobility in the country. This is mainly due to their relatively affordable fares, and availability around the clock in most parts of the country. As a study by Deloitte (2018) found out, over 70% of commuters in Kenya use matatus as part of their daily commute, 25% use buses, while 39% use motorbikes on a daily basis. The Nairobi non-motorised transport policy of 2015 estimates that public transport is the second largest preferred mode of transport at 32%, coming second to walking which is at 47%. However, when only work trips (trips between home and work) are considered, matatus are the most preferred modes at 35% followed by walking at 28%.

Technological advancements driven by a relatively high and affordable internet coverage, plus a high smartphone ownership rate of about 60% (Ong'aro, 2018), have led to a positive spillover effect, particularly of a digital innovation nature, into the transport sector. Technological applications are contributing to gradual transformation of the transport sector as they seek to overcome challenges facing the sector and users. This is particularly true for urban areas. These applications can lower the trip cost to the customer, increase tax collection, increase reliability, minimize corruption and increase comfort and security in the services offered. So far, the application of technology in the sector is not as extensive as it is in other cases, i.e. agriculture, but it is slowly growing and finding relevance and applicability in the sector. Applications in the transport sector have mainly been grounded on the concept of a shared economy.

This study explores the influence of digital applications in mobility in Kenya in both rural and urban areas, but with a heavy bias on passenger movement.



Figure 1. A typical interior of an urban transit matatu in Nairobi

## 1.1. Background

In 2019, the global innovation index by the World Intellectual Property Organisation ranked Kenya as a leading innovation hub in Africa coming in at number 4. The country is reported to have 48 active technology hubs (Bridges, 2020) that are harnessing the power of digital application to solve day to day issues.

These hubs/innovation centres have facilitated the adoption of technology-driven digital applications in the transport sector. This includes both locally developed and those that can be considered imported products and services. The applications have the potential to facilitate a gradual transition to more affordable (lower cost), more comfortable (direct feedback mechanism on quality of service), more convenient (real time booking), and potentially more sustainable transport services (mass transportation), befitting to the local circumstances, if the regulatory framework and relevant infrastructure is put in place.

However, the advent of digital applications in the transport sector has led to the rise of a new and partially unregulated industry. Just recently, the Government of Kenya withdrew operating licenses of a digitally facilitated "point to point" operator, SWVL Kenya, citing non-compliance with public transport regulations. The main area of contention, based on reports from the media, was that the operators had not acquired the appropriate public service vehicle licence, which meant they were not operating within the set public service vehicle regulations in the country. The operator was using digital applications and providing a more comfortable and much more reliable transportation option mostly targeting customers belonging to the middleclass. For many of the regular users, this service constituted a viable alternative to what is perceived as an unruly and chaotic matatu system in Nairobi. The service provided was however considered public transport service and the operator was therefore expected to stick to already determined routes and operate based on similar models i.e. apply for a similar licence and stick to same routes as matatus.

The transport sector in Kenya, particularly the public transport sector, faces a number of challenges. None of them can be fully addressed by digital solutions alone. Most of them will need more concrete policy, institutional and infrastructural response to be effectively addressed.

Some of the main challenges in the sectors include:

• Lack of an integrated transport system. There is an absence of both network and tariff integration. This results in an uncoordinated public transport system that lays a heavy burden on the commuter. This is a key issue for urban areas and for long distance commuters in Kenya.

Public service vehicles in most urban areas operate on a paratransit model. In Nairobi for instance, matatus are the main public transport modes, complemented by a limited rail network and other low capacity private options. These are essentially the main modes of travel alongside buses, private taxis, boda boda and tuktuks for last mile connectivity.

Matatus and buses are managed by operators (SACCOs) and do not use a pre-defined schedule. The only mode that has a fixed schedule and works on a pre-board fare collection system is the railway line. This leads to an absence of intermodal integration and hence can cause difficulty in trip planning resulting in additional costs, particularly when change of travel mode is necessary to complete a trip.

There is also a lack of integration with proper non-motorised transport (NMT) facilities that would facilitate easy access with bicycles or other NMT modes.

• Inadequate transport infrastructure: Kenya's current transport infrastructure is inadequate, fragmented and inaccessible, particularly for rural areas. This brings with it a host of challenges, ranging from a lack of road safety, road fatality issues, accessibility difficulties, as well as congestion, particularly for the urban segment. Investments in transport infrastructure have been rising over the years with the energy, infrastructure and ICT sector, that the transport sector belongs to, receiving the second highest budget allocation from The National Treasury for several years now. Still, this is not sufficient to cover required infrastructure costs in the country. Nairobi metropolitan area has for instance been working on the implementation of a Bus Rapid

Transport System as far back as 2009 when the feasibility study for a Mass Rapid Transit System for Nairobi was launched. The project has been identified as a key infrastructural necessity needed to reduce commuting challenges within the city; it is however yet to be actualised. Other cities like Mombasa and Kisumu are also facing similar issues, they have no other option than to rely on road based mixed traffic services to transport the masses. This leaves most cities with limited transport options leading to an inappropriate modal split that is heavily reliant on motorised road transport. The rail system is also limited to very few lines that do not cover most of the country, hence the ultimate mode of travel for a significant majority of the population is road.

• Road user safety: Road transport in Kenya accounts for 93% of all cargo and passenger traffic in the country (NTSA, 2019). This high share constitutes a big challenge for road safety. The country suffers just about 3,000 fatalities annually (TTCA, 2020), with the largest share of those affected being pedestrians. The case is similar to the rest of the African continent which records the highest rate of road fatalities in the world. The World Health Organisation (WHO) attributes this to the lack of comprehensive laws concerning the major risk factors such as speed control, drink-driving, helmet use, seat-belt use, and child restraint. But even where comprehensive laws are in place, poor law enforcement renders the laws ineffective. Inefficient emergency response measures to accident site is also associated with the high fatality rate in the region.

# Digital products and services in the Kenyan Mobility Sector

A number of digital products with varying mobility services have so far been developed in the country. These range from passenger and cargo transportation, which fall under the ride hailing service category, which is a digitally facilitated transport service that offers direct passenger transportation, as well as service facilitation. More than 25 companies with digital products in the mobility sector have been introduced since 2015. These have had a positive impact on the economy of the country and have led to the government responding with respective regulations, most of which are currently in draft form. Once complete they have the potential to facilitate an undisrupted operation of some of the services, particularly passenger transportation services.

Ride hailing is estimated to have contributed about 45 million dollars out of a total of 109 million dollars generated from online gig economy<sup>1</sup> in Kenya in 2019 (MercyCops, 2019).

The majority of the digitally facilitated mobility applications so far are grounded on the concepts of a shared economy. The shared economy, according to Price Waterhouse Cooper (2015), is the economy that allows individuals and groups to make money from underused assets, thereby allowing for physical assets to be used as services.

The logic of the shared economy has led to the growth of platform-based ride services, also known as Transportation Network Companies (TNC) (OECD/ITF, 2018). Services provided under this model are facilitated by platforms that create a system where physical products are transformed into product-service systems (Jud, 2015), that offer mobility benefits to consumers. These have however not been limited to the provision of ride services only; some companies are also putting to use assets they own, i.e. bike share companies such as Bikeshare Toronto, where the user digitally unlocks and uses a company-owned bike after paying a fee via an app. This has however not picked up in Kenya or in the larger part of Africa yet. Kenya has instead seen a growth of platform-based mobility services that offer collaborated services combining both ride services with marketplace services, taking advantage of the numerous motorbike riders in the country to facilitate their operations.

There are currently five different types of mobility services in Kenya operating on a platformbased model.

These include:

- E-hailing services
  - o Motor vehicles
  - o 2- and 3-wheeler vehicles
- Car-pooling services
- Delivery services
- Cargo and logistics services
- Trip planning

Services in the market are offering both ride-hailing as well as a combination of passenger transportation and delivery services (products). Majority of existing and new platforms have

<sup>&</sup>lt;sup>1</sup> According to MercyCorps (2019), gig economy refers to a labor market that is characterized by the prevalence of independent, temporary work that is conducted on a short-term or a task-by-task basis, and payment is received upon the completion of these tasks.

shifted to multi-functioning mobility service platform, providing varying services within the same platform. The different types of services operating in Kenya are discussed in the following.

## 2.1. E-hailing services for motor vehicle transport

The digital ride hailing market has grown over time into a robust and dependable mobility provider. It has contributed to an ever-expanding digital economy in Kenya. The market has grown from the first TNC (Uber) launched in 2015, to more than 20 companies actively operating in the country. While Uber and many other products are not originally Kenyan, the availability of a favourable ICT and innovation ecosystem backed by a young population interested in technology has facilitated their successful integration in the country. Regardless, more than half of the platform-based mobility services that will be discussed in further details below, have been locally developed; most of which belong to the ride hailing category.



## Popular taxi apps in Kenya

Figure 2 Popular E-hailing companies in Kenya

#### Source: (Tanui, 2019)

There are approximately 18 ride hailing services operating in the country. A few popular entrants not yet included in the figure above were launched in 2018 and 2019. These are An-Nisa Taxi, whose main target clientele is women, and Peppea which is owned & operated by a Kenyan motor vehicle dealer, Maridady motors. Another company is Maramoja transport, a digital ride hailing service that works on similar principles but a slightly different model. They

leverage social media networks to connect clients with a driver within their social circle. The service uses a client's Facebook list to identify drivers with whom you might share acquittances, then allocates the closest find to the client. The service is reported to have been in operation since 2015. Refer to table 1 at the end of this section for a detailed overview of the ride hailing services operating in the country.

Digital ride hailing services in Kenya have also transformed over time and moved from only offering passenger car taxi service businesses, into mass transit (public transport) service provision. The services incorporate prior booking, seat and time selection, as well as offer a predictable price on specific predetermined point to point routes. Companies like SWVL, Safiri express, and Little shuttle, had set up operations in Nairobi and successfully operated for a while before their services were halted due to regulatory issues. The official position from the regulator, as reported in the media, is that the services were operating contrary to laid down procedures for public transport providers. Companies providing such a service are licenced to operate on specific routes which is mostly radial and are required to belong to a cooperative society (SACCO). It was reported that these companies were not meeting the set requirements, particularly on not operating on approved routes through which they should be licenced. However, while these services are currently not allowed to operate, there are signs that the government is working on ensuring such innovations are accommodated. The NTSA is in the process of developing regulations specifically targeted at ride hailing service providers in the country. However, these draft regulations in their current form still do not address the issue of mass transit point to point services. The regulations define "digital hailing service vehicles" as a motor vehicle with a seating capacity originally designed for a maximum of seven passengers excluding the driver. This has been subjected to the public for input before revision and approval, it is therefore envisioned that additionally flexibility in routes, as well as increase in vehicle capacity to include mini buses will be considered.



Figure 3. Image of a point to point ride hailing service company SWVL

The country has also seen development of ride hailing applications that operate outside the capital city or the touristic town of Mombasa. These include services like Wasili and Safiri cabs, that are active in Nakuru, Eldoret and Naivasha towns, but not present in Nairobi.

Nairobi has attracted a ride hailing service known as Nopia, which operates a fleet of emission free electric vehicles on a ride sharing model. This service is a step in a more sustainable direction as it contributes to the country's overall objective of reducing emissions in the still heavily fossil-fuel reliant sector. The service is slowly growing in popularity with the company intending to significantly increase its fleet numbers in the coming years. Unlike the majority of the other e-hailing companies, Nopia owns 100% of its fleet. It leases the electric vehicle to the driver who pays for it over time.

#### 2.2. E-hailing for two- and three-wheelers

Kenya and a number of other African countries are globally unique in the sense that they have motorcycles operating as public transport service providers. The motorcycle taxis, locally known as boda boda, are favoured for being able to manoeuvre through heavy traffic with ease, are also readily available to hail along the street. They are also essential for the first and last mile connection, particularly in less safe parts of cities.

Applications such as Safeboda, UberBODA and Taxify/Bolt have developed products that facilitate on demand e-hailing of such motorcycles.



Figure 4 Ride hailing two-wheeler from one of the companies offering boda boda services on their platform Photo: GIZ Kenya

In the county of Mombasa, Uber and a few other ride hailing services, have accommodated three-wheeler tuk tuks (auto rickshaw), which are traditionally popular as they are a rather convenient option for short distance passenger trips. Ride hailing users have the option of selecting between a passenger car or a tuk tuk for their commute. The tuk tuks are a cheaper option than a regular car taxi and are typically used for short trips within the city or within residential estates. Car taxis on the other hand are used for longer trips, mainly due to comfort and a better level of safety. The services are normally hailed on the streets and rarely ordered by app due to them being readily available and at a lower cost.

In comparison, 2-wheelers are more effective when maneuvering through traffic and can cover trips faster. These advantages in combination with increased emphasis on safety measures by the TNC as well as predictable prices based on fixed cost per kilometres rates lead to increasing uptakes of 2-wheelers by ride hailing platforms and make them more popular in comparison to 3-wheelers.



Figure 5 Ride hailing three-wheeler in Mombasa, Kenya dropping off passenger Photo: Herman Kwoba

## 2.3. Carpooling services

Carpooling services such as Twende and Indriver connect commuters that drive their private vehicle to go to work with commuters that rely on public transport; both groups are vetted and included in a communal platform that allows them to share their trip plans, and find suitable matches for sharing the ride. The main difference between this operation model and the ride hailing service, is that here the vehicle providers are not typically taxi operators like in ride hailing service providers, but rather individuals who are willing to share their vehicles with individuals going similar directions.

There is also Ubabi Van Pooling, which operates on similar model of ride sharing by providing a platform that allows individuals who live and work close to each other to sign up, get matched

and ride together. It also provides van pooling services for neighbourhoods where communities have organised themselves into community groups and are willing to use the service. The company works with resident associations to organise for the carpool services.

#### 2.4. Delivery services

Other platform-based services that are growing in popularity in the country are those combining e-commerce and digital ride hailing to provide logistic services, to both individuals and companies. These are currently operating in major urban areas in the country. Some of the companies in the business are exclusively e-logistics companies, while others offer delivery and passenger transportation services on the same platforms. Glovo and Get boda are among the TNCs that are exclusively offering on-demand e-logistics, while Uber and Busyboda are some of those offering collaborated services that involve both digital ride hailing and delivery services. This is made possible through partnerships with third party businesses and independent vehicle taxi owners.

#### 2.5. Cargo services

Recently, several companies have also been launched and work based on an almost similar model as delivery services above, only that they deal with large cargo in an environment that is ridden with complex logistical issues. These platforms match transporters/distributers with cargo owners/shippers with the key objective of increasing efficiency through logistics optimization. Companies offering such service in Kenya include the likes of Lori, Senga, Sendy, PickIT, Ami truck and Tai+.

#### 2.6. Trip planning

Flexibus, Buscar and BUUPASS offer booking assistance for long-distance bus tickets to upcountry and neighbouring countries. This eliminates the long ticket queues common at the bus stations, as well as the need to visit the bus stations earlier before departure to reserve a ticket, and the limitation of going through individual bus company websites to select preferred travel options. These products allocate options offered by various bus service companies based on preferred travel times.

Separately, a project known as the Digital Matatus Project designed a transit map that illustrates public transport routes/network in the Nairobi Metropolitan Area. The maps were developed using mobile routing applications based on transit data collected by use of cell phone technology. This is a useful map for someone unfamiliar with the Nairobi transit route system,

which sees each route allocated a number and vehicles going on such routes use this numbers. The map can be downloaded as pdf or used online as a web application. The mobile application My ride Kenya helps users unfamiliar with matatu routing in Nairobi to know which services ply their route and where to board and alight.



Figure 6. Digital Matatu Map Source: Digital Matatus project (2015)

Another application that provides information relevant for trip planning and that has leveraged the concept of crowd sourcing is the Ma3route. This is an application that collects real-time information on changes in the traffic situation based on crowd-sourced information and updates its users through social media, particularly Twitter. The application also includes a platform which goes beyond provision of traffic alerts but also updates commuters on political developments in the transport sector and provides a space for debate on key transport related issues.

## 2.7. Digitalisation of services

Following suit, the Kenyan government is also seeking to digitise its service provision in the transport sector. In September 2014, the National Transport & Safety Authority (NTSA) and ICT Authority of Kenya launched the Transport Integrated Management System (TIMS); a self-service portal that provides access to transport services at the convenience of the individuals' homes or offices. Services offered in the platform include, transfer of motor vehicle ownership,

booking of vehicle inspections service, application for vehicle logbook, driving licence, among others. This service has greatly transformed the sector and has made complex transport services much more accessible than before. This has allowed for expedited processing of road user permits and all other requirements including all that is essential for public transport operators, including booking for vehicle inspection and issuance of driving licences.

Vehicle Registration		Vehicle Inspection	Driving Licence	Online Search	Notice & News		
Current Position: Home Page > Vehicle Inspection							
A Vehicle Inspection	Ē	Booking					
<b>U</b> Inspection		Norm		Denmark Data	De alvad Taran	ation Data	
💄 My Booking List		Num	No. Of vehicles	Payment Date	Booked Inspe	ection Date	
🏂 Create New Booking					Results: Total 0	ecords. Page 0/0 . Hor	
New Car Booking							
Change Particular							
Compliance Inspection							
2. Inspection Report							
🗘 E-sticker							
Apply for E-sticker							
				ntional Transport	မှု eCitize	n	

Figure 7 Screenshot of the TIMs system showing the services offered

The government is also working on rolling out intelligent traffic management system which is expected to transform traffic management in the country. This would facilitate ease of traffic control and minimise human involvement in controlling traffic in the country. This is currently being piloted.

#### 2.8. Overview of the services in the market

In a 2019 survey on the use of ride hailing applications in Nairobi conducted by GIZ, it was reported that over 58% of the respondents had used ride hailing services before. This is a relatively high coverage, considering that the services have entered the market only five years ago. The most popular mode in the survey were motor vehicle taxis which have been in the market the longest, followed by boda bodas which have just been introduced but are preferred by respondents due to their ability to manoeuvre through traffic, and finally mini buses, which only begun operations last year.



Figure 8. Ride hailing service modes in Nairobi

With regards to the companies operating in the country, the table below gives an overview of the digital services in Kenya as of June 2020. This covers both ride and delivery services.

Company	Service/USP	Country founded	Year launched in Kenya	Location
Uber	Offers a wide range of products including boda- bodas, three-wheeler taxi (in Mombasa) and differently priced car taxi services.	USA	2015	Nairobi, Mombasa
Bolt	Ride hailing services offering car taxi and boda-boda (motorbikes)	Estonia	2016	17 cities and towns across Kenya
Little Cab	Ride hailing service offering taxis, boda-boda, shuttle services and ambulances.	Kenya	2016	Nairobi, Mombasa, Kisumu, Nakuru, Eldoret, Nyeri.
inDriver	Ride hailing service (taxi) that allows for price negotiation. Passengers propose the fare they are willing to pay.	Russia	2019	Nairobi
SWVL	Ride hailing alternative to public transport in Kenya offering mass transportation. Cheaper than conventional ride hailing taxi and offers point to point public transport options.	Egypt	2019	Nairobi
Wasili	Ride hailing taxi app that has focused its operations in one region in Kenya	Kenya	2018	Nakuru, Eldoret

Table 1. Ride hailing services operating in Kenya

An-Nisa	Ride hailing taxi app that specifically targets women clients. It is marketed as a female owned company whose services are tailored to the needs of women.	Kenya	2018	Nairobi
Рерреа	Ride hailing taxi app that markets itself as charging the lowest platform fee (7% commission) to the drivers. They also offer different service levels for taxi and have incorporated a car-pooling service for groups of people going same direction.	Kenya	2019	Kiambu, Naivasha, Nairobi
Safiri	Ride hailing taxi app providing services across the country	Kenya	2018	Nakuru, Naivasha, Kisumu, Kericho, Nyahururu, and Eldoret
Nopia ride	Ride hailing service that offers a fleet 100% electric mobility vehicles.	Finland	2018	Nairobi
Smatt cab	Ride hailing taxi app active in one specific city (for now).	Kenya	2018	Eldoret
Nyota ride	Ride hailing taxi app active in one specific city (for now)	Kenya	2017	Eldoret
Goteksi	Ride hailing taxi service founded in Kenya. The company owns the vehicle fleet and dispatches the vehicles on request	Kenya	2019	Eldoret, Meru
Maramoja	Digital ride hailing service leveraging on social networks. The service uses social media connections to identify drivers with whom you might share acquittances on social media and allocates them to you.	Kenya	2015	Nairobi
Busyboda	Ride hailing service that primarily works with motorbikes. The company offers courier and boda boda service	Kenya	2018	Nairobi
Twende	Carpooling service that connects riders going on the	Kenya	2019	Nation wide

	same direction based on verified community members.			
Konnector	Ride hailing service that primarily works with motorbikes. The company offers courier and boda boda service	Kenya	2017	Nairobi
Dalacabs	Ride hailing app providing both motor vehicle and boda boda service across the country.	Kenya		Nakuru, Kisumu, Nairobi, Mombasa

So far, there is no empirical data showing the extent of usage and market share of the other digital transport service categories in the country. It is clear, however, that the increasing share of digitally facilitated services in the country is driven by the demand side, especially in transport and domestic service uptake by urban households (MercyCops, 2019).

# 3. Discussion and key lessons

In a recent report on "*Ride-Hailing Services: Opportunities & Challenges for Cities*" (2016), the National Association of City Transportation Officials (NATCO), a New York based association that brings together cities and transit agencies in North America, identified the following positive attributes of ride hailing services, some of which apply to a city like Nairobi:

- Reduction in vehicle kilometres travelled (VKT) and greenhouse gas emissions due to decreased vehicle ownership
- Increased use of public transportation by improving first/last-mile access
- Reduction of parking space needs
- New mobility options for non-drivers, including older people, younger people, people with disabilities, and people without access to a vehicle
- Improved traffic safety by reduced drunk driving

However, the report also cites disadvantages of ride hailing uptake, such as reduced usage of transit services. This was confirmed as a potential downside in a GIZ study on ride hailing usage carried out in Nairobi. 48% of respondents who had used ride hailing services, reported that they could have instead opted for public transport if the ride hailing option had not been available (GIZ, 2020). As more people abandon traditional matatus and boda bodas in favour

of ride hailing services, and with consumer power increasing due to a growing middle class, the traditional matatu services will have to adapt quickly to (re-)gain consumer confidence.

The growing preference for digitally facilitated mobility services, in place of the privately owned traditional matatus, that have been the backbone of public transportation for decades since the 1960s, also makes a case for more government support in public transport in Kenya. Of particular interest is investment in better mobility options, in particular with the aim of improved mass rapid transit systems and a transformation of the current uncoordinated public transport system. Regulations have to be clear as to how digitally facilitated services operating within the public (transportation) space, shall carry on with their business and have complementary relation with public transport. Ultimately, mass transportation is a more essential service as compared to individual-based services.

"A potentially significant issue in relation to the principle of regulations (that regulations should be neutral technologically and in relation to business models), is the desire of governments to see ride-hailing and other app-based mobility services evolve in a way that supports and expands the public transport system" (Deighton-Smith, 2018)

It is necessary that digital applications are designed in facilitation of improved public transportation. Focus should be on improving the current state of public transportation and in mechanisms that help to better understand mobility trends in the country. This will lead to a data-driven policy set up and eventually a more sustainably managed mobility system.

Disclaimer: Services mentioned in this report have not been vetted. This is therefore not an endorsement but rather and overview of what is offered based on online search and referrals from industry experts.

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