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The urban motorcycle taxi sector in Sub-Saharan Africa: needs, practices and equity issues

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ABSTRACT


Motorcycle taxis in Sub-Saharan Africa are an essential component of the urban transport mix, providing vital services - such as access to markets, education and health facilities - to city dwellers across the continent. Transport regulators and policymakers have nonetheless remained reluctant to engage with this expanding sector, which seems to be the preferred mode of transport. Primary data were collected in five Sub-Saharan African countries during the last quarter of 2020 using qualitative interviews with key stakeholders relevant to the urban motorcycle taxi sector and quantitative motorcycle taxi operator surveys. There is a substantial prospect to come up with best practices within this sector by identifying and learning from the experiences of various stakeholders including motorcycle taxi and motor tricycle taxi operators, unions, institutions, traffic police, and users of these services. In addition, the data shows that there are ample opportunities for increased collaboration between the stakeholders, to ensure the sector's continuous contribution to socio-economic development. Planning for a more sustainable and integrated transport system in Sub-Saharan African cities requires acknowledging the significant position taken up in this by the motorcycle and tricycle taxi.

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1. Introduction

1.1. Background

In the last 20 or so years motorcycle taxis (MCTs) – and more recently motor tricycle taxis – have fundamentally changed mobility and access in urban (and rural) Sub-Saharan African (Peters et al., 2022). In many African cities, motorcycle taxis – often referred to as *Okadas* in West Africa or *Boda Bodas* in East Africa – are responsible for the majority of transport movements of both people and goods and providing hundreds of thousands of jobs to low-skilled or marginalized youth (Ntramah et al., 2023).

Most people who reside in urban areas face challenges when moving around their cities (Onyango & Owino, 2021), especially when using conventional urban passenger transport systems (UN-Habitat, 2014). Motorcycle taxis (MCTs) and more recently, motor-tricycle taxis (MTTs) have as a result come in as a mode of public transport, overcoming this service challenge. Well-functioning and integrated public transport systems would facilitate a more sustainable future where the private car is not prioritised as the main means of transportation. Accessibility of basic services such as schools, health care, and common spaces, as well as leisure activities, depends to a large extent upon the functionality of public transport systems. Furthermore, accessibility challenges take place within a context of Sub-Saharan African cities having experienced rapid urbanisation, while facing the early effects of climate change.

Inspired by the availability of inexpensive motorcycles introduced from countries like India and China, the MCT and MTT sector has rapidly developed in many countries across the world (Sietchiping et al., 2012; E; Ehebrecht et al., 2018). Accessibility is directly linked to appropriate planning of the transportation system and the provision of adequate infrastructure. Where these are not present (or only partial), intermediate forms of transport – such as the MCT and MTT – have an advantage. Motorcycles often ride off the main carriageway, along secondary and tertiary roads or even paths, and so have transformed the landscape of urban transport. Key benefits of MCT transport include the provision of transport services to those who are not able to afford private transport, and the provision of transport services to and from areas where conventional vehicles such as cars and buses will not or cannot reach, which in the urban African context typically includes informal settlements. Furthermore, in most Sub-Saharan African cities MCT riding is a major income-generating activity, employing hundreds of thousands of young people.

1.2. Statement of the problem

It is expected that one in two Africans will live in a city by 2030, up from one in three Africans in the year 2000 (Kumar & Barrett, 2019). This rapid urbanization, combined with equally rapid population growth and social change, requires a large increase in the provision of transport services, and is already requiring diversification to adequately cater for the changing mobility needs of urban populations. In the 1980s and early 1990s, the governance of transport services underwent significant change as structural adjustment processes enacted in response to the economic and fiscal crises, demanding austerity and the rolling back of the state, resulting in a return of national assets to a deregulated private sector. In this context, many state-

owned or state-funded transport companies went into a rapid decline which, coupled with population growth, resulted in unmet demand (Ehebrecht et al., 2018). While there is a trend in developed countries to move towards collective modes of public transport, the reverse is true in developing countries, where there is a shift towards individual modes (Jaligot et al., 2017). This has led to a growth in non-conventional means of transport, the most dominant being the motorcycle taxi (Jaligot et al., 2017). Motorcycle taxis are a relative newcomer to the transport sector in many African cities and have been able to satisfy unmet demand in the existing transport sector created by a lack of supply, insufficient settlement and transport planning, inadequate transport infrastructure, and unaffordable private vehicles (Ehebrecht et al., 2018). There is thus a need to ensure that they are planned for as they are a source of income to majority of urban dwellers.

1.3. Main objective

The main objective of the study was to determine the different practices and modi operandi that have crystallised within the urban motorcycle taxi sector in sub-Saharan Africa, covering the theme of user needs, practices and equity issues.

1.4. Research questions

The specific research questions underlying this study included:

- (i) To what extent are motorcycle taxi services complementary rather than predatory (in competition) with more conventional public transport services in urban environments?
- (ii) Due to MCTs higher 'price per kilometre' as compared to shared taxis and (mini-) buses, are their services beyond the reach of the urban poor? Equally, do the more affluent urban elite – who may own private transport – make no use of MCT services?
- (iii) Are there specific categories of people who hitherto may have struggled in accessing appropriate conventional public transport modes but whose needs are now fulfilled by the MCT services, such as market women travelling with considerable loads or disabled people (with MCTs delivering 'door-to-door' services)?
- (iv) To what extent are the various MCT users' needs (e.g. rain shelters at MCT stands?) taken on board by the service providers (that is, the MCTs), their unions and ultimately, urban transport planners/city council?

2. Methodology

2.1. Study design

The study was designed to utilize a mixed-methods approach as this was deemed necessary for answering the research questions. Due to funding constraints the data were gathered in the two SSA regions where motorcycle taxis are most numerous, namely West and East Africa.

2.2. Data collection

For this study, a number of research questions were formulated. The research questions were subsequently operationalised in an MCT operator survey, using experiences from earlier MCT surveys conducted in Sierra Leone and Liberia by Peters and Mokuwa (2017). Each research question ‘generated’ between 2 and 4 survey questions. Some survey questions were in a simple ‘yes/no’ format, some used a Likert scale, while others had a number of possible answers to choose from. There were around 40 to 50 short survey questions in total with surveys conducted with between 30 and 60 MCT operators in each city. In each country, the researcher(s) conducted their surveys in two cities (typically the capital and a secondary city).

In Kenya, Tanzania, and Uganda, standardized questionnaire surveys were conducted among 60 to 70 motorcycle taxi operators through convenience sampling (Table 1). In Ghana, with no motorcycle taxis operating in the secondary city, Kumasi, just over 50 surveys were conducted with motor-tricycle taxi (MTT) operators. Approximately 80 additional surveys were then conducted in the capital city, Accra, where motorcycle taxis do operate. Note that commercial motorcycles and motor-tricycles have been banned across the whole country since 2012. The lead researcher in Ghana opted to interview as many motorcycle/tricycle operators as expressed an interest during their allotted days at their various loading points. Due to an especially high interest in participation amongst operators, this resulted in a higher sample size in Ghana relative to other study countries. Motorcycle/tricycle taxi riders were approached at locations where motorcycle taxi operators congregate in the study cities, most commonly at motorcycle taxi stands where operators wait for fares.

In addition to rider surveys, the study contained a qualitative component. A series of key-stakeholder semi-structured qualitative interviews (approximately 15 per country) were conducted. Key-stakeholders included representatives of: MCT unions; traffic police; market boards; city councils; transport sector regulatory bodies; and urban planning departments. In each study city, a series of semi-structured qualitative interviews was conducted. Purposive sampling was also used to identify and interview key transport stakeholders comprising users, non-users, regulators, enforcers, development workers, researchers and transport unions. Interviews were conducted in English, recorded, and transcribed.

2.3. Data analysis

Analysis was conducted by lead researchers in each study country, who identified key themes, related these to the main research questions, and compiled initial reports on

Table 1. Number and location of motorcycle/tricycle taxi surveys.

| Countries | Sample Size | Capital City | Secondary City |
|-----------|-------------|---------------|----------------|
| Ghana | 134 | Accra | Kumasi |
| Kenya | 67 | Nairobi | Kisumu |
| Liberia | 120 | Monrovia | Ganta |
| Tanzania | 60 | Dar es Salaam | Morogoro |
| Uganda | 61 | Kampala | Mbarara |

the findings. This paper utilizes *framework analysis* which builds on the thematic analysis (Smith & Firth, 2011). It allows the authors to assess the cross-sectional descriptive data and capture the various phenomenon under investigation. Framework analysis is a tool for analysing textual material to create an audit trail between the original material and the final conclusions (Dymitrow and Brauer,2017). They ensured familiarization with the data by the Key Informants through round table discussions.

The study encompassed five countries (Figure 1) – two in West Africa (Ghana and Liberia) and three in East Africa (Kenya, Tanzania and Uganda).

A webinar was organized to which all key-stakeholders were invited. Originally, a two-day workshop – rather than online event – was planned to take place in Kisumu, Kenya, but due to COVID-19 and associated travel bans this was not possible. The key aim of the webinar was to share data and to assess the various ‘best practices’ and how these have been achieved (that is, what have been the bottlenecks/challenges, how have these been overcome, who has been involved in their implementation, etc.). Since the MCT surveys were standardized across the 10 locations (2 urban settings in 5 countries) this offered opportunities for interesting comparisons, while also offering an aggregated ‘bank’ of about 300 surveys.



Figure 1. Study countries.

3. Results and discussions

The key findings from the motorcycle taxi surveys ($n = 442$) are presented below. Short interpretations/explanations of the data are based on the knowledge gained through the key stakeholder interviews.

To get to know the survey respondents, the study first established whether they were new to the job or seasoned motorcycle/tricycle taxi operators. While Figure 2 clearly shows that the majority of respondents worked between 3 and 10 years in the sector, it is evident that those working in the West African countries (Ghana and Liberia) were somewhat shorter engaged in the sector on average, than those in the East African study countries (Kenya, Tanzania and Uganda). Uganda in particular seems to be the country where operators remain in the profession for a substantial period with 38% having operated MCTs for more than 10 years. Liberia had the least number of operators who have been in the sector for more than 10 years accounting for only 3%. The majority of

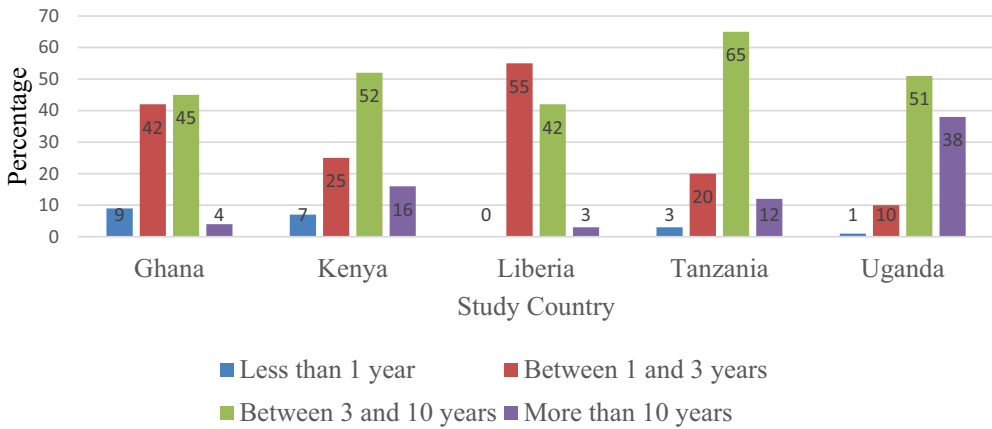


Figure 2. Years of being an MCT operator.

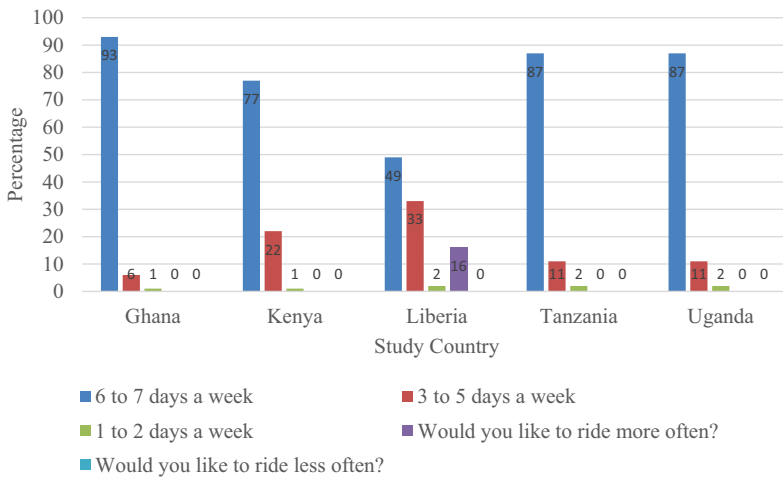


Figure 3. Days of working per week.

operators who have been in the industry for between 3 and 10 years were from Tanzania accounting for 65%. This may suggest that there is limited opportunity for social mobility: once one is a MCT operator one likely will remain one. Alternatively, there may not be a lot of incentive to switch professions: being a MCT operator generally comes with a good income, particularly so for those who have limited qualifications. Two-wheeled taxis in East Africa started with the bicycle taxis that transported travellers between the Kenyan-Ugandan border (thus their name *bodaboda*) and this subsequently fanned out over the nearby towns. Over the past two decades, there has been a significant growth in the use of motorcycle taxis in Kenya, aided by the inflow of cheap imported Chinese and Indian motorcycles.

The study found that the majority of operators in all the study countries work 6 or 7 days a week (Figure 3), with Ghana recording the highest percentage of operators working for this many days. The Liberian operators do ride less often, with 16% indicating that they would actually like to ride more often. Very few operators work between 1 and 2 days, as generally this does not provide one with sufficient money for one's livelihood. However, those that do not ride for the full seven days, may still get some income on the non-riding days, by renting out their motorcycle to friends, who in turn rides for that day. It seems that this is quite common in Liberia with 33% opting to work for 3–5 days a week. This is in tandem with the findings of Inuwa et al. (2017) who found out that MCT operators in African cities usually have long working hours. This is coupled with the poor nature of roads, undesirable health impacts such as back pains, vision challenges, headaches, and sexual weakness. It is consequently not strange that most of these operators in Kampala expressed interest in acquiring their own bikes to reduce the number of working hours and to make enough fares for themselves (Kisaalita & Sentongo-Kibalama, 2007)

MCTs are complementary to the services provided by conventional transport providers, such as shared taxis and mini/midi buses, perhaps going to locations that are not served by these conventional providers or operating at times that few if any conventional providers are active. The study also sought to determine whether MCT services are 'predatory', taking away passengers who would have otherwise travelled with more conventional means of public transport. This was an important question, because if they were (or seen as) predatory, there may be limited goodwill from policymakers, regulators and other service providers towards the MCT and MTT sector. To gain insight in this enquiry, it was important to establish if MCTs operate on the same routes as conventional transport providers or operate where no public transport services are available. Figure 4 shows that for all five case study countries the MCT/MTT operators 'nearly always' or 'most of the time' operate on the same routes as conventional transport providers. Does this make them predatory by default? To some extent: yes, but there are some caveats. The much praised 'door to door' service MCTs provide, can mean that a part of the journey goes along route that is also shared by conventional transport providers (for instance when travelling from someone's home to a main transport hub or office building to the town centre). Furthermore, and as highlighted below, the foremost reason for taking a motorcycle taxi is 'to beat traffic', and frequently people with private transport means available opt to leave their vehicle at home and take a motorcycle taxi, perhaps when having to travel at peak congestion time or to a place likely to be affected by congestion. These

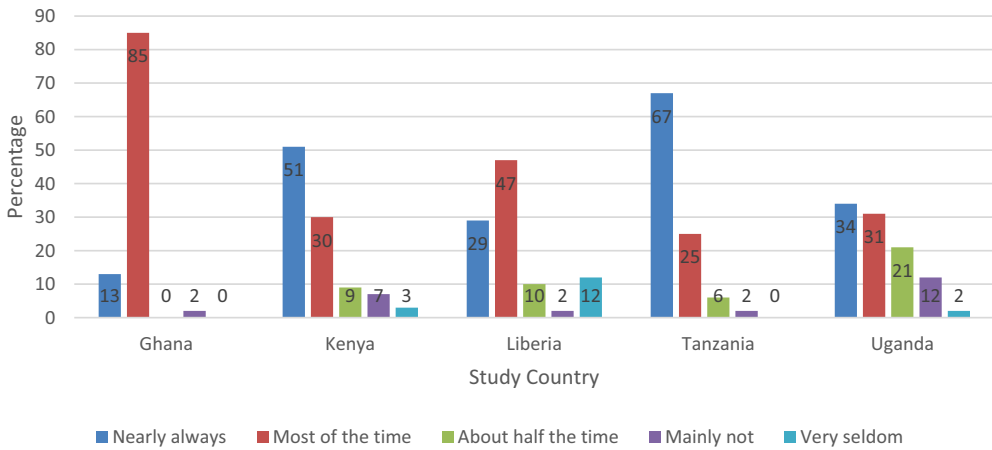


Figure 4. How often motorcycle/motor tricycle taxis operate on same routes with conventional transport.

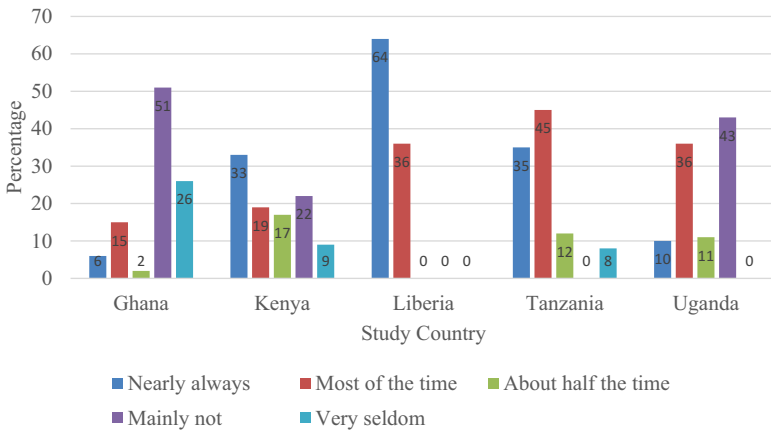


Figure 5. How often passengers are carried to and from main transport hubs.

people would unlikely take public transport in the first place. This is in agreement with Mulunda (2012) study which found out that MCTs are preferred by users because they easily manoeuvre through traffic jams, and reach some destinations that the conventional means of public transport cannot reach. They are able to make several trips back and forth while it takes time before conventional means of transport gathers passengers to full capacity and leaves the terminus.

Nevertheless, it is clear that MCTs and MTTs are to a significant extent taking passengers who would have otherwise travelled with conventional means of public transport. As such this is different from the more rural SSA areas, where MCTs are often more complimentary, providing their services where conventional providers are unlikely to operate, and often bringing more people to the travel hubs where they then embark on a conventional shared taxis or mini-bus, given that motorcycle taxi transport over long distances (typical of more rural areas) is relatively more expensive.

Ghana in particular is the outlier with 26% indicating that they rarely carry passengers to and from main transport hubs (Figure 5). Roads are operated by formal termini where most of the users board and in other places (Achola et al., 2018). Passenger Service Vehicles (PSV) wait for passengers to load to full capacity before departure, and off-peak wait times may be in excess of an hour (Ajay & Fanny, 2008). A leader of a MCT union in Kisumu (Kenya) observed that ‘it is very common for passengers to start their journeys on MCTs and complete it by matatu and vice-versa’. While the conclusion from Figure 4 was that MCTs and MTTs are to a varying degree predatory, they also provide a complementary service (to conventional public transport providers) in urban areas, although the picture is quite mixed over the five case study countries. Ghana in particular is the outlier with 26% indicating that they rarely carry passengers to and from main transport hubs. Here it is important to remember that in Ghana, motorcycles and motor tricycles are not registered as taxis due to the ban on their use for commercial purposes. They are thus not able to access all parts of the city (Bishop et al., 2018) including the main transport hubs.

In Table 2, the proportion of trips perceived as short (travel within 10 minutes and less than 1 km) was averaged at 43.8%. It is clear that motorcycle taxi transport is a service overwhelmingly patronaged by those who need to travel a short or medium distance – for all countries more than 70% of the journeys are the short or medium ones. Long and in particular, very long journeys are sometimes taken by motorcycle taxi, but conventional transport services are preferred, typically because these are cheaper and possibly safer. Furthermore, travel by conventional means of transport over longer distances provides the passengers shelter from the elements, such as sunshine and rainfall. While the MCTs/MTTs predominantly provide short intra-city passenger trips, on average 24.2% ‘long’ and 11.8% ‘very long’ trips are undertaken. As noted by one operator in Kumasi: ‘I mainly provide short trips within the city but have made occasionally very long trips from city centre to Agona Ashanti by one of my customers who sometimes calls me to transport him there for business’. (MTT rider, Kumasi)

Table 2. Proportions of passenger routes by length of trip.

| Types of journeys | Mean percentages by countries | | | | |
|--|-------------------------------|-------|---------|----------|--------|
| | Ghana | Kenya | Liberia | Tanzania | Uganda |
| Short (less than 10 mins, less than 1km) | 56 | 40 | 44 | 49 | 30 |
| Medium (10–20 mins, 1–3 km) | 28 | 37 | 41 | 33 | 44 |
| Long (20–60 mins, 3 -10km) | 36 | 32 | 12 | 17 | 24 |
| Very long (above 60 mins, above 10 km) | 14 | 20 | 5 | 11 | 9 |

Table 3. Ranking of perceived reasons for use of motorcycle and motor tricycle taxis.

| Reasons for use of MCT/MTTs | Ranking by countries | | | | |
|---|----------------------|-------|---------|----------|--------|
| | Ghana | Kenya | Liberia | Tanzania | Uganda |
| To beat traffic | 1 | 2 | 1 | 1 | 1 |
| To avoid waiting for transport | 4 | 1 | 2 | 2 | 4 |
| To be picked up/dropped off at exact location | 2 | 3 | 3 | 3 | 3 |
| More convenient | 5 | 4 | 4 | 4 | 2 |
| Cheaper | 3 | 5 | 5 | 6 | 5 |
| To be able to travel with loads | 6 | 6 | 6 | 5 | 6 |

1-Most important reason; 6-Least important reason

Stakeholders were of the opinion that both urban poor and the urban elite patronise the services of the MTT/MCTs depending on their travel. The majority in all the study countries indicated that it was convenient and cheaper to travel with load by the use of the MTT/MCTs (Table 3). It was explained that using the service of these inintermediate means of transport (IMTs) is about placing value on time above cost and convenience. This means that people who use these IMTs to beat traffic would often pay a higher fare than they would have, had they taken a shared public transport means. A stakeholder in Ghana explained that: *'I am of the view that individuals patronize the service of Okadas mainly because they are in a hurry and want to avoid traffic but not due to the cost involved in boarding a [MTT]'* (Driver and Vehicle Licensing Authority Official). It also became evident that some affluent urban elites patronised the MCTs/MTTs because of the non-availability of parking spaces in the city centre. The stakeholder explained: *Sometimes the inability to find parking spaces in the city centre compels the urban elite to patronise the three-wheeler taxis.* The lower fares of the motor tricycle taxi – not the motorcycle taxi – compared to some conventional public transport services, such as those offered by the shared taxi, were thought to attract the urban poor to using their services.

Notwithstanding, some stakeholders held the opinion that the rich see the MCTs/MTTs as nuisances because of safety considerations and wanted them out of the transport mix. Other stakeholders attributed the non-patronage of the MCT/MTT services by affluent people to the social prestige (status symbol) that comes with car ownership in the society. This makes it difficult for such people to use MCT/MTT services. Rather, they may use it indirectly by sending their errand boys to beat traffic simply because of their status in society. This finding is in agreement with Onyango and Owino (2021) study which found that the use of MCT/MTT is mostly associated with poverty-stricken people and equated with lower living standards whereas car ownership is often related to better living standards. This is a culture that has persisted with the sector being viewed as informal and a creator of congestion on the existing transport corridors. Inadequate concern to change this culture so as to improve and formalize this sector has been witnessed to be significant undesirable forces and insufficiently beneficial to the economy despite the fact that substantial individual benefits have been devoted to them (Owino et al., 2018).

The above findings are supported by data on frequency of where MCT operate, in all the cities within the five Sub-Saharan countries studied, as illustrated in Figure 6. The figure shows that MCTs rarely mainly operate in both poorer and richer areas. However, where in all countries a significant percentage of the surveyed operators indicated that they operate 'mainly in poorer areas' (ranging from 9% in Ghana to 56% in Liberia) few operators indicated that they operate 'mainly in richer areas' (ranging from 21% in Kenya to 0% in both Ghana and Liberia). While both poorer and more affluent people use motorcycle taxis, it is nevertheless a means of transport more often patronaged by poorer people and operating more often in poorer areas. That said, the percentage of richer or more affluent people is lower than the number of poorer people in all case study countries.

Poor people in Sub-Saharan African cities mainly live in informal settlements and extended areas of cities with poor infrastructure and services. Though MCTs are more expensive per kilometre as compared to other conventional modes of transport, the poor

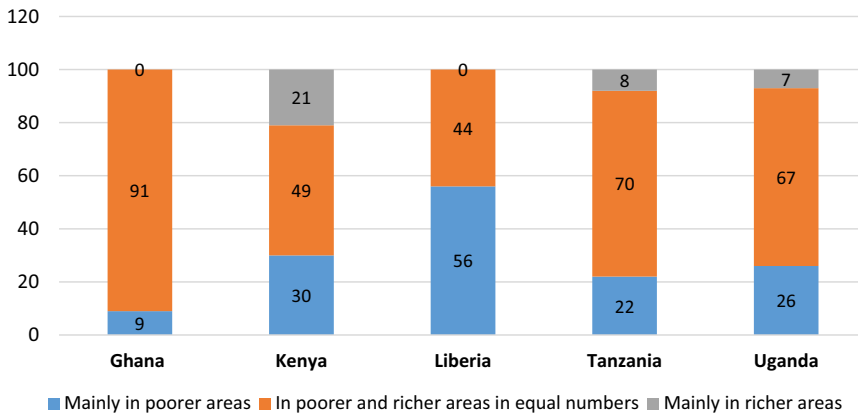


Figure 6. Area of city served.

sometimes do not have any other choice, as only motorcycles can navigate the narrow paths and poor roads in those settlements.

More than half (55%) of riders in Ghana, Kenya and Tanzania opined that rich people who own private transport use their services very seldomly. Riders in Liberia and Uganda had almost the same percentage (44% and 43% respectively) who stated that rich people very seldomly use their services. As Starkey (2016) explains, non-users, and particularly those who have access to their own cars, generally see MCTs in a very negative light. Given widespread usage and strong customer support for MCTs, bans are generally difficult to implement and police, more so when the (powerful) motorcycle taxi unions are side-lined. Meanwhile, 31% to 56% of riders in all the five countries indicated that rich people use their services ‘regularly’. Only between 3% and 11% indicated rich people use their services all the time as provided in Figure 7. The rich people with their own private transport may be forced to park their vehicles and board MTTs during high traffic congestion at the peak hours along major arterials in the cities. In such circumstances, the ability of the MTTs to beat traffic becomes useful for rich people. Though rich people use

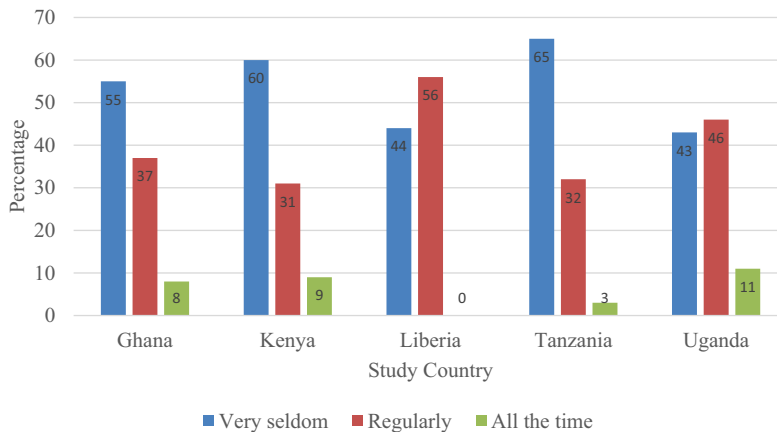


Figure 7. How often rich people with their own private transport use MCTs/MTTs.

MCTs/MTTs, the riders have indicated that it is not a common practice. As Starkey (2016) notes, the majority of the rich people, including non-users and in most cases those who own their private cars, view MCTs/MTTs in a very negative manner. This mind-set is found in most of the Sub-Saharan African cities but it is changing with time because of issues to do with traffic congestion, among others.

Many of the poor rely on the services provided by motorcycle taxis. That was clearly shown by the survey results presented in Figure 8 and corroborates the other survey findings such as the high frequency of MCTs operating in areas classified as poor. Mitigating the higher cost of motorcycle taxi transport per kilometre, which may be challenging for poorer people, is the fact that fare costs are negotiable and that two persons may share a bike to split the cost. Research from Uganda indicates the importance of MCTs in servicing low and very low-income residential areas, especially before 10 a.m. and after 8 p.m., with poorer women often indicating that motorcycle taxis are their only option (Evans & Ch Ng, 2018).

MCT/MTT operators were asked what kind of needs or issues have been expressed by their passengers. As can be deduced from Figure 9, a key concern expressed most often

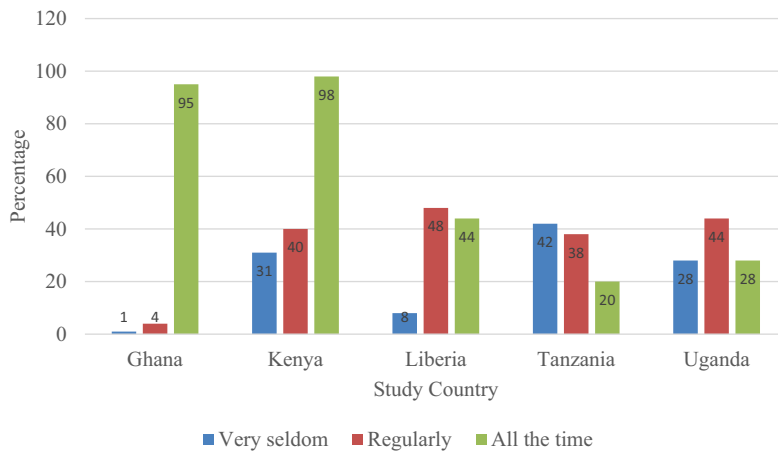


Figure 8. How often poor people use MCT/MTTs.

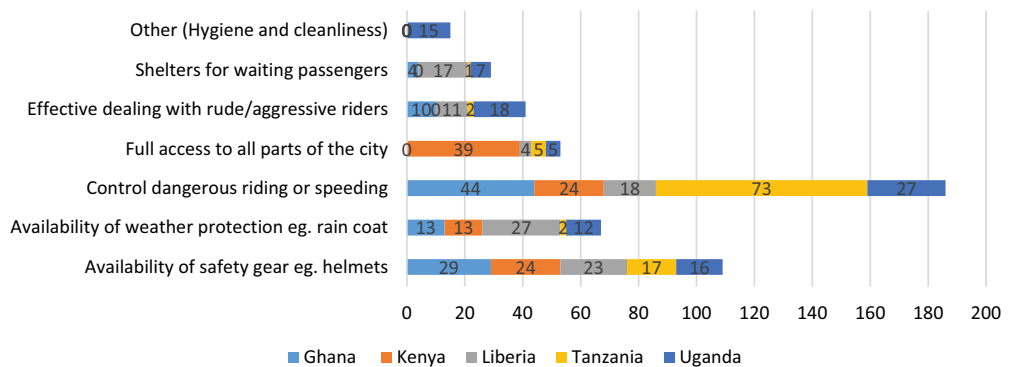


Figure 9. User needs, as communicated to MCT/MTT operators.

(although not if disaggregated for each country) is related to dangerous riding or speeding. The safety of both the operators and users/passengers is paramount and this is underscored by the fact that the two most frequently expressed needs or issues are related to safety. Availability of safety gear (e.g. helmets) should be advocated for protection. While in some countries wearing a helmet (by both the operator and passenger) is widely practiced – Rwanda is a case in point – in other countries, such as Liberia, few operators and even fewer passengers do wear helmets. Starkey (2016) notes that both operators and passengers need to understand what can be termed as best practice in regard of regulation and self-regulation in the industry, and what can be viewed as the best compromise between safety regulation and the transport and economic benefits of some practices is. Although beyond the scope of this study, by linking the diverse levels of (self) regulation and accident rates (and accident severity) and compare these between countries, it should become possible to get a better understanding of what measures are more or less effective in promoting safety. Transaid (2019) looked into detail what measures enhance safe motorcycle and motor tricycle riding, albeit for rural Sub-Saharan Africa. Nevertheless, many of their observations are equally applicable to more urban or peri-urban settings.

Figure 10 presents a somewhat ‘mixed bag’ of findings. In all study countries most of the MCT/MTT operators indicated that their unions have some degree of power and are listened to ‘in some matters’. Except for Uganda, where the political clout of the unions is deemed to be substantially less, with 48% of the operators indicating that their unions are not listened to and have no power. In Kenya, motorcycle taxi unions are mostly registered by the Department of Social Services as Self-Help Groups (SHGs) and Community-Based Organisation (CBOs) or as Savings and Cooperative Organisations (SACOOs) by the Department of Cooperative Development. In Kisumu, the county government has supported the MCT unions in building shades, though members felt they are inadequate: ‘*The county government should build for us proper infrastructure and shades and clearly designate them as bodaboda shades*’ (MCT union leader). Perhaps not up to the standards expected or hoped for by the operators, at least this is proof that they are listened to by authorities. In Ghana, 48% of the respondents said that they are listened to in some matters with just over 30% indicating that they are ‘very often’ listened to. This

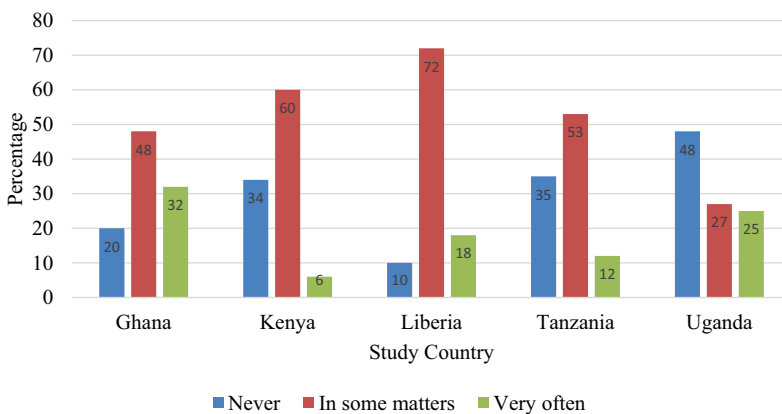


Figure 10. Is the motorcycle union powerful/listened to by authorities?

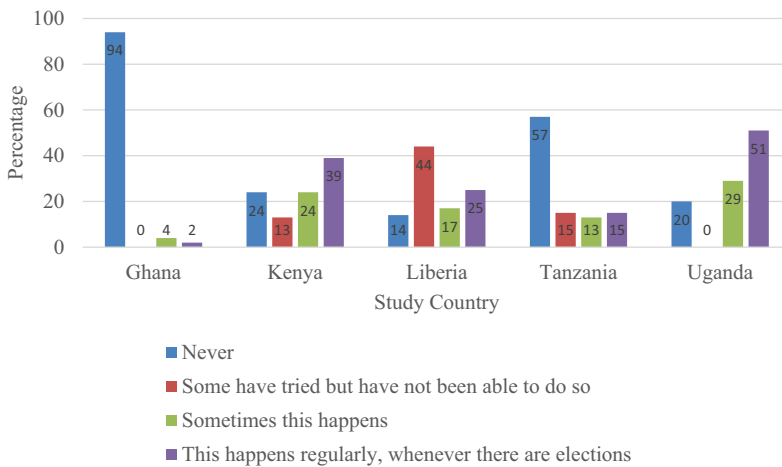


Figure 11. Mobilization of motorcycle union by politicians for campaigns.

is interesting, as commercial motorcycle riding is not allowed in Ghana, as stipulated in Road Traffic Act, 2004 and the Road Traffic Regulations, 2012 [Legislative Instrument (L. I.) 2180] (Afukaar et al., 2019). So, what are these unions that are – according to one-third of the operators – ‘very often’ listened to? There are two main motorcycle taxi unions that exist in the Accra Metropolis – the Ghana Private Motorbike Operators Union (GPMOU) and the Motor Riders Association of Ghana (MRAG) (Tuffour, 2014). While the establishment of the MRAG was facilitated by the government as an umbrella body for motorcycle operations in Ghana, it is the GPMOU which has a larger number of active members. In Liberia, most of the MCT operators who participated in the survey are members of a motor-taxi union, while others were non-members who were planning to register.

However, about a quarter of all operators in the two case-study cities do not have the intention of becoming union members: if membership is voluntary those who feel that unions are not listened to and/or have no power, are unlikely to become a member and thus having to pay a monthly membership fee. In Tanzania, the unions are somehow recognized, as expressed by one of the respondents: *‘We are somehow recognised, though, as an informal business. Maybe we will be involved in making some decisions. Currently, we are not consulted on any urban management issue (MCT union rep, DSM)*. Perhaps the fact that many do not see their union as a powerful force to be listened to by the city council is one explanation for this. Some stakeholders in Ghana expressed disbelief in the ability of unions to address any of the needs of their members and explained that: *the unions are [supposed to be] there to see the interest of their members and not the interest of their patrons (Police, Motor Traffic and Transport Department Official)*. Uganda has a different scenario whereby the majority (48%) indicated that the unions are never listened to. A shared feeling among various stakeholders was that the needs of unions and users are not taken on board by city authorities because MCT drivers: *‘are not contributing to local revenue like other means of transport, directly through their unions. Therefore, planners find it hard to invest in a sector that is not bringing taxes to local authorities’*. Paradoxically, because MCT drivers are left to their own devices, they not only meet their

own needs for operating within the city by creating spaces of operation themselves, but they also ensure that they hold on to them at all costs. They do not expect any services from city authorities for themselves or their passengers.

It is evident from Figure 11 above that MCT/MTT have some power/political clout, according to the operators. But does this also work the other way round: do politicians have power over and/or have used the unions (and their membership) for their political (self) interests? With the exception of Ghana, the operators in all countries felt that politicians did (try to) use the unions for their own political purposes. However, their influence, according to the interviewees, is mainly felt around election time as the MCT/MTT operators are an important voting block, and any leader who wants to seek an elective position cannot afford to antagonize the unions. This is mainly experienced in Kenya (39%) and Uganda (51%). In Uganda, politicization is two sided: politicians need MCT drivers, and leaders of associations need politicians. This 'exchange' is what gives some leaders of MCT associations political leverage that they use for personal gain (Goodfellow & Titeca, 2012). Patronage politics in the MCT sector involves calculations of political advantage on the side of patrons (politicians and generals) and clients (leaders of MCT associations). Ghana and Tanzania present a different scenario with the majority of the respondents indicating that motorcycle unions are never mobilized by politicians for campaigns. According to the national secretary of the Association of Motorcycle Owners and Drivers in Tanzania, they have 1.2 million members from all regions in the country. Based on this figure alone, one would expect that they are in a position to influence various political matters, and vice versa, that politicians would be interested in receiving the support of such a large block of potential voters.

What are the reasons why unions agree to be used by politicians in the first place? Are they supporting the general agenda of a politician or are there any more direct promises of aid, perhaps even 'buying' votes in exchange for money? Figure 12 shows that in both Tanzania and Uganda unions – according to their members – are often paid to support a politician.

In Uganda for instance, some associations are aligned with the ruling government, others with the opposition party or with individuals like military generals or prominent members of parliament. Unions that do not subscribe to the politics of these actors

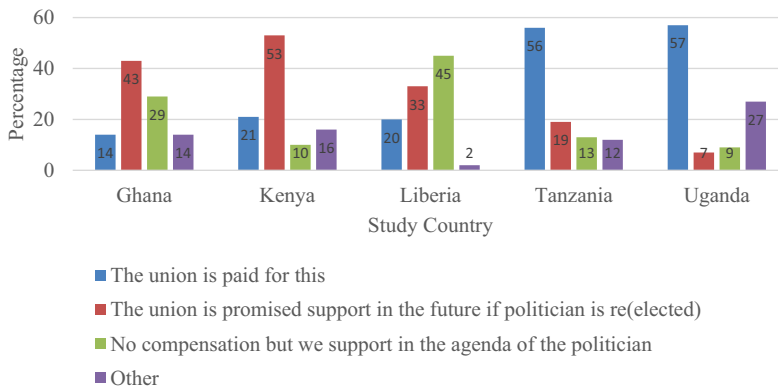


Figure 12. If the MCT union is mobilised by politicians, why does it agree to that?

expose themselves to sabotage, or are pitted against each other, while these actors jostle for power to control the large numbers of youths in the MCT industry. Due to these 'divide-and-rule' tactics, associations (cooperatives) loose power and remain weak. An interesting comment was made by a traffic policeman in Dar es salaam, Tanzania: *'city councillors appear to assist MCT operators when they are arrested in order to earn popularity with riders'* (Traffic police, DSM).

In Ghana and Kenya, 43% and 53% respectively of the respondents indicated that the union is promised support by a politician in the future if that politician is (re-)elected. In Ghana, the stakeholders who held the view that the MCT/MTT unions and operators have political clout explained that the unions/operators use it to have their way. The democratic political system in Ghana leads those in political positions to depend on the electorate, are thus susceptible to (over?) promising support after re-election. The same applies to Kenya where stakeholders were of the opinion that MCT operators and their unions have political influence and people interested in elective positions often seek their support. Liberia gives a different scenario from the rest of the countries where 45% of the respondents stated that the unions do get compensation but support the agenda of the politicians. This support only comes if the agenda of the politician can be beneficial to the union.

4. Conclusion

Motorcycle taxi transport – and increasingly motor-tricycle taxi transport – is a significant (and still growing) component of the transport mix in primary and secondary cities across sub-Saharan Africa. Besides providing rapid and tailor-made transport services for its users, it also provides an income opportunity for hundreds of thousands of mostly young and in most cases male operators. A key question was how this intermediate form of transport fits within the wider mix of public transport services available in urban areas. The study found that motorcycle taxi services are both predatory and complimentary. They do take passengers away from the more conventional means of public transport, operating along the same routes as the shared taxis, mini and midi buses. However, they are also complementary, carrying passengers to and from the main transport hubs, and operating in areas of the city where conventional means of transport do not reach. Furthermore, most of the MCT and MTT journeys are short in duration and distance, with passengers preferring conventional public transport providers for longer journeys. The main overarching reason for taking a MCT is related to time-savings, evident from the fact that 'to beat traffic', 'to avoid waiting for transport' and 'to be picked up/dropped off at exact location' were listed as the three foremost reasons why people take a motorcycle taxi in the first place. Motorcycle taxi provides a tailor-made service, and as result, is typically more expensive per kilometre than more conventional public transport means. The findings of this study showed that MCTs provide their services in both poorer and richer areas, although as with most survey questions, there was some variation between the five case study countries. There is a difference between poorer and richer people in why they use the MCT, with richer people – likely to own private means of transport – opting for the MCT to beat traffic and/or in case they anticipate it to be challenging to find a parking place for their privately owned car. A key reason for poorer people for using MCTs is that it is the only available motorised

transport option available in the more informal suburbs, which are frequently characterised by bad and/or narrow roads which are difficult or impossible to navigate by conventional four or more-wheeled transport.

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References

- Achola, M. J., Hayombe, P. O., Akenga, T., & Owino, F. O. (2018). Transport pooling as a mitigating strategy for carbon dioxide (CO₂) emission. *International Journal of Environment and Pollution Research*, 6(3), 17–26. ISSN:2056-7537.
- Afukaar, F., Damsere-Derry, J., Peters, K., & Starkey, P. (2019). Rural transport services indicators: Using a new mixed-methods methodology to inform policy in Ghana. *Transportation Research Interdisciplinary Perspectives*, 3, 100074. <https://doi.org/10.1016/j.trip.2019.100074>
- Ajay, K., & Fanny, B. (2008). *Stuck in traffic: Urban transport in africa*. World Bank Group. <http://documents.worldbank.org/curated/en/671081468008449140/Stuck-in-traffic-urban-transport-in-Africa>
- Bishop, T., Barber, C., Muhia, G., Rettie, N., Krasnolucka-Hickman, A., Divall, D., & Porter, G. (2018). *Enhancing understanding on safe motorcycle and three-wheeler use for rural transport, country report: Kenya, RAF2114A*. ReCAP for DFID.
- Dymitrow, M., & Brauer, R. (2017). Performing rurality. *But Who. Bulletin of Geography. Socio-Economic Series*, 38, 27–45.
- Ehebrecht, D., Heinrichs, D., & Lenz, B. (2018). Motorcycle-taxis in sub-saharan africa: Current knowledge, implications for the debate on “informal” transport and research needs. *Journal of Transport Geography*, 69, 242–256. <https://doi.org/10.1016/j.jtrangeo.2018.05.006>
- Evans, O., & Ch Ng. (2018). Towards a geography of informal transport: Mobility, infrastructure and urban sustainability from the back of a motorbike. *Transactions of the Institute of British Geographers*, 43, 674–688. <https://doi.org/10.1111/tran.12239>
- Goodfellow, T., & Titeca, K. (2012). Presidential intervention and the changing ‘politics of survival’ in Kampala’s informal economy. *Cities*, 29(4), 264–270. <https://doi.org/10.1016/j.cities.2012.02.004>
- Inuwa, N., Jikan-Jatum, A. M., & Bello, H. Y. (2017). Motorcycles health and traffic safety: Evidence from. *Journal of Arts and Humanities*, 6(5), 33–41. <https://doi.org/10.18533/journal.v6i5.1101>

- Jaligot, R., Kemajou, A., & Chenal, J. (2017). A new approach to spatial analysis of motorcycle taxis activities – The case of Port-au-Prince, Haiti. *Urban, Planning and Transport Research*, 2017, 5 (1), 78–91.
- Kisaalita, W., & Sentongo-Kibalama, J. (2007). Delivery of urban transport in developing countries: The case for motorcycle taxi service (boda-boda) operators of Kampala. *Development Southern Africa*, 24(2), 345–357. <https://doi.org/10.1080/03768350701327319>
- Kumar, A., & Barrett, F. (2019). *Stuck in traffic: Urban transport in Africa*, AICD. Retrieved October 6, 2019, from <http://siteresources.worldbank.org/EXTAFRUBSAHTRA/Resources/Stuck-in-Traffic.pdf>
- Mulunda, L. (2012). ‘Motorcycles drive out tuktuks’. *Business Today*, February 9, 2012. Retrieved May 26, 2020, from <https://businesstoday.co.ke/motorbikes-drive-out-tuktuks/on>
- Ntramah, S., Peters, K., Jenkins, J., Mugisha, M. M., Chetto, R., Owino, F., Hayombe, P. O., Opiyo, P., Santos, R. T., & Johnson, T. (2023). Safety, health and environmental impact of commercial motorcycles in Sub-Saharan Africa cities, urban. *Planning and Transport Research*, 11(1), 1, 2259233. <https://doi.org/10.1080/21650020.2023.2259233>
- Onyango, G. M., & Owino, F. O. (2021). Transit oriented development in medium cities in Africa: Experiences from Kisumu, Kenya. *Journal of Geography and Regional Planning*, 14(2), 91–104. ISSN: 2070-1845. <https://doi.org/10.5897/JGRP2020.0813>
- Owino, F. O., Hayombe, P. O., & Achola, M. J. (2018). Planning commercial development in a rapidly urbanizing population. *International Journal of Business and Management Research*, 6 (6), 46–54. ISSN:2052-6393.
- Peters, K., Jenkins, J., Ntramah, S., Vincent, J., Hayombe, O., Owino, F., Opiyo, P., Johnson, T., Santos, R., Mugisha, M., & Chetto, R. (2022). COVID-19 and the motorcycle taxi sector in Sub-Saharan African cities: A key stakeholders’ perspective. *Transportation Research Record: Journal of the Transportation Research Board*, 2677(4), 751–764. <https://doi.org/10.1177/03611981221131538>
- Peters, K., & Mokuwa, E. (2017). *Gender mainstreaming in the motorcycle taxi sector in rural Sierra Leone and Liberia. Data collection instruments*. <http://research4cap.org/Library/Peters-SwanseaUni-2017-GenderMainstreamingMotorcycltaxi-AFCAP-RAF2044G-DataCollectionTools-v250914-FINAL.pdf>
- Sietchiping, R., Permezel, M., & Ngomsi, C. (2012). Transport and mobility in Sub-Saharan African cities: An overview of practices, lessons and options for improvements. *Cities*, 29(3), 183–189. <https://doi.org/10.1016/j.cities.2011.11.005>
- Smith, J., & Firth, J. (2011). Qualitative data analysis: The framework approach. *Nurse Researcher*, 2011(18), 52–62. <https://doi.org/10.7748/nr2011.01.18.2.52.c8284>
- Starkey, P. (2016). The benefits and challenges of increasing motorcycle use for rural access. *Proceedings of the International Conference on Transportation and Road Research, held 15-17 March 2016* (pp. 17), Mombasa, Kenya.
- Transaid (with Amend and TRL). (2019). *Enhancing understanding on safe motorcycle and three-wheeler use for rural transport. Final report*.
- Tuffour, Y. (2014). Motorcycle taxis in public transportation services within the Accra metropolis. *American Journal of Civil Engineering*, 2(4), 117. <https://doi.org/10.11648/j.ajce.20140204.12>
- UN-Habitat. (2014). *The state of African cities 2014, Re-imagining sustainable urban transitions*. UN-HABITAT.