





Accelerating COVID-19 related 'best practice' in the urban motorcycle taxi sector in Sub-Saharan Africa Country report: Uganda

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Lead contact	Krijn Peters				
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Abstract					
The outbreak of the COVID-19 pandemic and the various measures put in place to mitigate its spread had a considerable impact on the urban transport sector. This report presents and assesses the findings of approximately 61 motorcycle taxi operators and approximately 15 key stakeholder interviews conducted in Kampala and Mbarara, Uganda. The main purpose is to provide evidence-based inputs to policy formulation.					

Keywords	Urban transport, motorcycle taxi sector, COVID-19, intermediate forms of transport, Uganda, East Africa, best practice
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ACRONYMS

Apps	Applications
СВВМА	Century Boda-Boda Motorcycle Association
CBD	Central Business District
FGDs	Focus Group Discussions
HIV	Human Immunosuppressive Virus
IMF	International Monetary Fund
KAMBE	Kampala Metropolitan Boda-Boda Entrepreneurs Cooperative and Saving Society
KCCA	Kampala Capital City Authority
MCTs	Motorcycle Taxis
MTTs	Motor-tricycle Taxi
ROSCAs	Rotating Credit Associations
RTO	Regional Traffic Officer
SACCO	Savings and Credit Cooperative Organisation
SAPS	Structural Adjustment Programmes
SBBC	SMART Boda-Boda Cooperative
SCDO	Senior Community Development Officer
SSA	Sub-Saharan Africa
SOPS	Standard Operating Procedures
UN	United Nations
UNCDP	United Nations Capital Development Programme
UNDP	United Nations Development Programme
WB	World Bank
WHO	World Health Organisation



EXECUTIVE SUMMARY

This country report details the findings of a study on the impact of the COVID-19 outbreak on the urban motorcycle sector in Uganda, and the measures and restrictions put in place to reduce its spread. It also explores motorcycle taxi operator's perceptions of the acceptability of these restrictions and the extent to which they feel their sector has adapted and adhered to them. Urban motorcycle drivers provide essential transport services, but despite this they receive limited support from the government.

A mixed methods approach was used. Primary data was collected in two cities: Kampala and Mbarara. It involved qualitative interviews with key stakeholders and a survey covering 61 drivers. The findings were presented to and discussed among key stakeholders in workshops in Mbarara and Kampala. The results of this report – together with similar research activities in five other Sub-Saharan African countries – have been used for an aggregated report and policy brief on the impact of the COVID-19 outbreak on the urban motorcycle/tricycle taxi (MCT/ MTT) sector in Sub-Saharan Africa.

Key facts

- In the first eight months of the COVID-19 pandemic in Uganda, 14,574 cases were recorded with 133 deaths and 7,771 recoveries;
- The government responded with a series of public health, law enforcement and transport-related
 measures including physical distancing, hand sanitising, washing hands regularly, face masking, restricting
 unnecessary travel, and a lockdown. The measures adopted by the government were among the strictest
 in the region;
- Use of MCTs reduced significantly during the COVID-19 pandemic as a result of both limited demand and supply.

Key findings

- The impact of COVID-19 on the urban transport sector was significant and negative. COVID-19 restrictions
 disrupted MCT livelihoods by curtailing mobility resulting in an inability of riders to meet their personal
 needs, and their financial and social obligations;
- Specific standard operating procedures (SOPs) were issued for motorcycle taxis including a ban on
 passenger transport, enforcement of a curfew, and mandatory registration of clients after the lifting of
 the ban. The measures were stricter than for other modes of public transport and lasted for a longer time;
- The level of compliance to COVID-19 restrictions varied over time, with near total compliance in the first two months followed by symbolic compliance (e.g. wearing of face masks under the chin; wearing masks irregularly) and non-compliance;
- Non-compliance was sometimes a form of protest against a prolonged curfew and restrictions against offering passenger transport;
- To cope with the impacts of the pandemic, many MCT drivers diversified their livelihoods, quit the sector
 and adopted new livelihoods/ jobs, increased fares to compensate for loss of income, violated carriage
 restrictions, or migrated;
- Two major technological innovations (glass separating drivers from the passengers and online platforms) were made by MCTs. However, both were rejected by government.

Key recommendations

- Measures taken by urban authorities were revanchist and non-consultative. Urban authorities attempted
 to take advantage of the lockdown but failed as MCT leaders often resisted the measures. It is
 recommended that urban authorities engage and consult MCT leaders from the start so that a higher level
 of compliance can be achieved;
- Economic empowerment of MCT/ MTT operators by increasing their access to cheap credit and
 rescheduling existing loans to enable them deal with the negative effects on livelihoods wrought by the
 pandemic, as well as support for and boosting their diversified livelihoods, should be explored;



- There were contradicting perspectives about promoting MCTs among drivers and government officials. Drivers advocated for promotion because MCTs are a form of employment, offer urban transport and operators can take precautions against COVID-19. Promotion and supportive policies by the government would result in recognition, formalisation, legitimisation, guaranteeing of livelihoods and ensuring social justice for this sector which employs many people and supports many more livelihoods;
- Following on from a fear that MCTs would be super-spreaders of the pandemic, and a belief that because
 they are not regulated, they are a menace and tracing contacts would be difficult a view expressed by a
 number of stakeholders there is need for detailed epidemiological research on the MCTs/ operators as
 disease vectors;
- Despite their potential, few MCT drivers used mobile phone-based Apps due to poor sensitisation, training, high costs of data, unfair pricing, lack of technological savviness, non-availability of services in secondary cities, and poor marketing by companies. Subsidizing – temporarily, during times of emergency - data packages would enable a wider take-up/ use.



1. Introduction

In the last 25 years or so, motorcycle taxis (henceforth MCTs) – and more recently motor-tricycle taxis – have fundamentally changed mobility and access in urban Sub-Saharan Africa, providing rapid and door-to-door transport, supporting livelihood activities, and facilitating access to essential services, such as health, markets and education. 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 provide hundreds of thousands of jobs to low-skilled and/or marginalised youth.

During the recent COVID-19 epidemic, urban motorcycle/ tricycle taxi operators provided essential services, including to key health-workers, but also experienced risks of contracting the virus and spreading it, due to their close and multiple interactions with customers. Understanding the impact of COVID-19 — and of the measures taken to mitigate the spread of the virus — on this widespread intermediate form of transport is crucial for planning, managing and operating urban transport services, so that essential services remain accessible for urban dwellers during periods of lockdown or curfews.

While MCT operators have in many cases shown ingenuity and an ability to adapt and innovate when responding to different (health) challenges, policy-makers and regulators often remain somewhat unwilling to engage with (or are even hostile to) the – often informal – motorcycle taxi sector. Furthermore, because of the intermediate and informal nature of the motorcycle taxi sector, policymakers, urban planners and transport regulators tend to overlook its role and potential (as a force for good/ support but equally as a factor in further spreading COVID-19) or are not sure how to engage with the sector and its representatives. Prior to the COVID-19 pandemic, many of the measures taken by African cities to curb or even completely ban motorcycle taxi riding ignored the essential services they deliver and seem to be mainly a response to the rising number of traffic accidents involving or caused by motorcycle taxi riders. The rapid spread of urban motorcycle taxis does pose a series of challenges. Bringing motorcycle taxi operators/ unions and key stakeholders in urban (health) planning and transport together will be essential for the future sustainable socio-economic and environmental development of SSA's cities.

1.1 Project aims and objectives

The aim of the project Accelerating COVID-19 related 'best practice' in the urban motorcycle taxi sector in Sub-Saharan Africa is to improve understanding of the impact of the COVID-19 outbreak (including the measures and restrictions put in place to reduce its spread) on the urban motorcycle taxi sector in Sub-Saharan Africa (SSA), via case studies of three West African countries (Sierra Leone, Liberia and Ghana) and three East African countries (Uganda, Kenya and Tanzania). This report analyses and communicates the data and findings for Uganda.

Knowledge (including false/ ineffective 'knowledge') about how to reduce the chance of COVID-19 infection, through behaviour changes and/or social and technical innovations, may be shared spontaneously among individuals or small groups of riders. However there is limited opportunity to share best practices between motorcycle taxi operators in different cities or between different LICs (and lower MICs). This study's objective, therefore, was to share the findings, best practices, and any social and technological innovations developed/ adapted by motorcycle taxi operators to mitigate the impact of COVID-19. It was intended that by sharing them with urban motorcycle taxi operators and key stakeholders, including policymakers, this would allow for evidence-based rapid interventions. This was done via workshops, a sharing platform freely accessible to all relevant beneficiaries and key stakeholders, and one generic policy brief, together allowing for intra-city, inter-city and international peer-to-peer learning and knowledge exchange.

1.2 Transport challenges being addressed during/ post-COVID-19

Motorcycle taxis play a pivotal role in the provision of urban transport. However, relations and trust between the concerned authorities and motorcycle taxi operators/ unions can be strained at times, possibly affecting the effectiveness of COVID-19 measures and restrictions. This research established:

If and how the COVID-19 pandemic has affected urban motorcycle taxi services in general;



- If motorcycle taxi operators or unions have been consulted in the COVID-19 measures taken, and what their level of compliance with these has been (including reasons for limited or non-compliance); and
- Social and technological measures and innovations motorcycle taxi operators have introduced to limit infection by or spread of COVID-19.

2. Methodology

2.1 Summary of approach

This project used a mixed methods research approach, divided into three key activities or work-packages. The three work packages set out below allowed us to collect important data to answer the various research questions, to create opportunities for the key stakeholders and beneficiaries to discuss and access the findings in user-friendly formats, and to learn from peers across different countries and regions. The approach has high utility due to the multiple opportunities created for peer-to-peer and peer-to-stakeholder learning, as well as for knowledge exchange at an intra-city, inter-city, inter-national and virtual levels.

2.1.1 Work Package 1: Data collection

In each of the study's case countries, data were collected through key informant interviews and motorcycle taxi/ motor tricycle taxi operator surveys in two cities.

2.1.2 Work Package 2: Sharing of findings

Data findings, including responses and socio-technological innovations, were discussed in country-level Focus Group Discussions (FGDs) between the country researcher, key stakeholders, and representatives of the beneficiaries. Due to ongoing COVID-19 restrictions in the case-study countries, typically the number of participants in these FDGs had to be limited to comply with regulations.

2.1.3 Work Package 3: Feeding back findings from regional workshops

Findings from the country studies and FGDs were presented at a webinar on 16th April 2021. The webinar participants included the various country researchers and key stakeholders (from all six case-study countries) such as representatives of MCT unions; traffic police; representatives from ministries of health (and other relevant ministries); market board members; city council representatives; transport sector regulatory bodies; and urban planning departments. The key stakeholders were identified by the country researcher based on a country specific literature review at the start of the project. A website and online open-access sharing platform have been developed (https://www.africawheels.org) on which the study's findings are shown, including short videos (of one to two minutes in duration) of MCT operators explaining COVID-19 related challenges they have experienced and how they have overcome these.

2.2 Detailed methodology

Data were collected through a mixture of semi-structured qualitative interviews and short surveys. The research objectives set out in the section above were operationalised in five open-ended qualitative questions that were asked to the key informants/ key stakeholders (see Appendix B for the stakeholder interview form). For each case study country approximately 15 key informants were interviewed (see Appendix A for a list of interviewed stakeholders). The questions asked were:

- 1. What have been the impacts/ effects of COVID-19 on urban transport in general and the motorcycle taxi (MCT) sector specifically?
- 2. If transport-related restrictions or a lockdown were introduced, what were the specifics of these, to what extent have motorcycle taxi unions and/or riders consulted in this, and to what extent have MCT riders complied with these?
- 3. Are there any social or technological innovations or adaptions MCT riders can take (or have taken) to reduce exposure and limit the spread of COVID-19?
- 4. Have experiences with and responses to previous outbreaks/ pandemics been used when addressing the current COVID-19 outbreak (for Sierra Leone and Liberia, think Ebola; for other countries, think for instance of tuberculosis, feared to be spread by using shared helmets)?



5. If motorcycle taxi transport, from all the modes of public transport (shared-car taxis, mini- and midibuses, etc.) poses the lowest risk of COVID transmission, do you think that motorcycle taxi transport should be promoted?

In addition, further survey questions were designed to provide more quantitative data on these five topics. While some of these survey questions were in a simple 'yes/no' format, others used a Likert scale or provided multiple answers to choose from. MCT/ MTT operators were surveyed in two cities in each of our six study countries, with a total of 60 surveys per country. The full research instrument is included in Annex C to this report. Since the MCT surveys were (largely) standardised across the 12 locations (two urban settings in six countries), this resulted in an aggregated 'bank' of about 360 surveys. As can happen when conducting surveys in large numbers, in a few cases one or more questions were not answered or correctly recorded. If, and when this happened, it is reflected in the graphs via the N number.

While 60 to 80 surveys can hardly be considered as sufficient for a meaningful quantitative analysis on its own, it is believed by the researchers that because of the way in which surveys were conducted (as described in the above paragraph), together with the key stakeholder interviews, that the data provides insight on par with what would be expected from a rapid appraisal method, for instance. The qualitative and quantitative data, plus the literature reviews, allowed for some level of triangulation to assess the validity of claims and findings.

3. Uganda context

This section provides a short overview of the first eight months of the COVID-19 epidemic in Uganda and how it impacted the country's transport sector.

3.1 COVID-19 in Uganda

Uganda registered its first case on 21st March 2020 and the first death on 25th July. To avert catastrophe, the government instituted more than 35 public health, transport-related social protection, and law enforcement measures. These included measured being used elsewhere, like lockdowns, physical distancing, regular hand washing, sanitising, tracing and testing, and food distribution. According to Hartwig and Lakemann (2020), the measures announced by the President on 18th March, were the most stringent and comprehensive in the region (1). The measures were managed centrally by the executive, specifically, the President assisted by a select committee of scientists from the Ministry of Health, some public officials, and representatives of the Police and the Military. They included the following key policy guidelines: closure of all the educational institutions; suspension of large gatherings in places of worship and leisure including shopping outlets (e.g. arcades), cultural spaces, and political rallies; banning travel to and from countries with a large number of cases; and strict adherence to public health measures e.g. hand washing. Other essential services and businesses allowed to operate following SOPs included medical facilities, pharmacies, supermarkets, food markets, factories, farms, agriculture, veterinarians, telecommunications, door-to-door delivery, financial institutions, all media, private security companies, cleaning services, garbage collection, fire-brigade, fuel stations, water departments, funeral services, and some staff of the KCCA.

Government introduced a partial lockdown on 18th March 2020 with the aim of decongesting cities and public spaces e.g. schools, places of worship, and recreation centres. A total lockdown was announced on 22nd March 2020 (2). In addition, the government mandated isolation of all confirmed cases, quarantining of suspected cases, and compulsory testing of all cross border travellers especially cargo vehicle drivers at all 53 designated entry points (3). By November 2020, 541,422 samples had been tested, while 25,163,961 masks had been distributed by the government. Due to the high costs associated with testing (4000 tests cost 962 million Ugandan Shilling per day)¹, the government privatised testing in its laboratories. The cost initially set at 240,500 Ugandan Shillings in August was reduced to 185,000 in October due to the lowering of product costs and the cost of transport as a result of the resumption of international flights.² Government also accredited some private laboratories to carry out COVID-19 testing, albeit they offered their services at

¹ This is equivalent to US\$ 267,222 (1US\$:3600 UGX).

² The two amounts are equivalent to US\$ 66.7 &51.38 (1US\$:3600 UGX).



almost twice the cost in government laboratories (4). Core public health measures were regularly emphasised by the President.

3.2 COVID-19 and urban transport measures/ restrictions

Of all measures, the toughest targeted the transport sector in general, and mainly the motorcycle taxi sector. Government initially allowed public transport systems of buses, mini-buses, taxis, boda-bodas (motorcycle taxis), etc., to continue provided they were given SOPs. However, it stopped all passengers coming into Uganda by air, land or water. A curfew on all public transport – lorries, pick-ups and trains – except for cargo planes was declared from 7 pm to 6.30 am, starting on 31st March 2020. Boda-bodas were to cease operations at exactly 2:00pm. Later, government closed Entebbe Airport and all other border entry points except for Cargo aeroplanes and trucks, stopped all public passenger transport vehicles (including boda-bodas), and allowed only 3 people per private vehicle. Because of misuse (e.g. turning private vehicles into taxis), government later banned the movement of all privately owned passenger vehicles.

On 4th May 2020, the ban on other modes of public transport was lifted, allowing only a given maximum number of passengers as advised by the COVID-19 task force. Passenger transport by MCTs, however, continued to be banned. MCTs could only carry goods and offer door-to-door delivery services (2–3). The reason for the sustained ban on MCTs was that whereas they do not carry many people, they traverse larger and more diverse spaces, hence are super spreaders. Tracing their contacts and those of their passengers would be very cumbersome. It was not until June 2020 that restrictions on MCTs were relaxed, however they were required to register before being allowed to operate (4). MCTs were also urged to register with online applications like Uber and SafeBoda. However, riders protested this measure because it was expensive. Instead, they proposed (through their associations) to register under the government or be allowed to make their own application (5).

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Figure 1: Approved Boda-Boda Free Zone



As if the government measures were not enough, the KCCA threatened to ban MCTs from the Central Business District (CBD), and to scale down their presence in the city divisions (from an estimated 2,000 or more, to 579 stages/ workspaces). This plan was orchestrated during the lockdown. MCTs were expected to comply with the following Cabinet directives: (i) operate at gazetted Boda-Boda stages with unique reference codes/ names; (ii) register at any of the gazetted stages, associations or KCCA; (iii) sharing of registers by App companies and associations; and (iv) observing the Boda-Boda Free Zone in the CBD (4). Figure 1 shows a map of the planned areas of operation for MCTs as proposed by KCCA.



Had the plan not been challenged, it would have led to the destruction of spaces of operation for thousands of MCT drivers. According to Hartwig & Lakemann (2020), measures against the MCTs damaged the sector which has over time heavily relied on transportation of passengers especially in urban centres due to its ability to manoeuvre through the maze of traffic and its relative cheapness (6).

3.3 Impact of COVID-19 on Uganda's society and economy

COVID-19 has affected every aspect of life in Uganda: health, economy, politics, industry, mobility, culture and everyday life. According to the UNDP (2020) these include, "food insecurity, lack of medical supplies, loss of income and livelihood, difficulties in applying sanitary and physical distancing measures, a looming debt crisis, as well as related political and security risks" (7). Perhaps the worst hit is the informal sector which employs 2.5 million people and is about a tenth of the country's population (8).

3.3.1 Health and social impacts

Between February and September, there were 3,037 cases of COVID-19, 32 deaths, 1,466 recoveries, 71 health worker infections, and a fatality ratio of 1.1. On November 9th, 2020, Uganda's total number of cases stood at 14,574, with 133 deaths and 7,771 recoveries (9). The mortality and morbidity impacts of COVID-19 on Uganda (and East Africa) have been mild compared to many countries in the world. Despite a sharp rise in November after easing of lockdown and the opening of schools, according to the WHO, cases of COVID-19 fell by 26%. Figure 2 shows daily new confirmed cases in Uganda, while Figure 3 shows daily new confirmed cases in Uganda, her neighbours (Rwanda, Tanzania, and Kenya), and other countries in the world including the United States, Italy, Brazil and the United Kingdom, which reported higher infections and deaths.

Figure 2: Daily new confirmed COVID-19 Cases in Uganda (10)

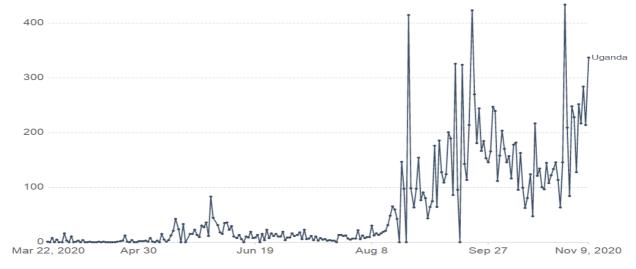
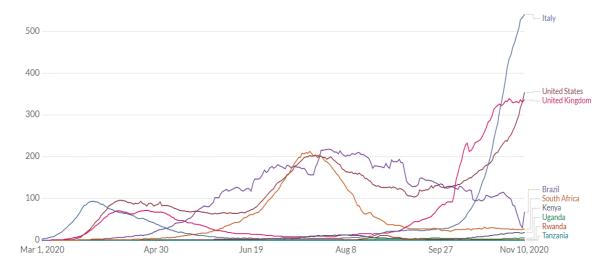


Figure 3: Daily new confirmed cases in selected countries (10)





COVID-19 exacerbated the existing disease burden, leading to the neglect of major diseases like malaria, maternal health, child health, chronic illnesses, depression, and people needing palliative care (11). For example, access to family planning and maternal health declined by 5% during the lockdown; antenatal care attendance alone reduced by 7%, while health facility deliveries and immunisation fell by 20%. Many pregnant women had complications due to failure to seek treatment at health facilities, sometimes leading to loss of life for both mothers and babies (11). There has also been an increase in adolescent pregnancies from 46% to 56%, increases in HIV and sexually transmitted diseases, lack of vaccinations (more so in rural and marginalised communities), malnourishment of children, and abandonment of people with terminal illnesses like cancer due to failure to easily access health facilities (2, 5). COVID-19 also strained Uganda's already ailing health care system due to its high infection rate (12), intensity of work needed to treat patients, and financial resources needed to procure personal protective equipment (PPE) for health workers (12).

Other social impacts of the pandemic include sexual and gender-based violence particularly violence against women and girls (13), divorce and separation (5), and suicide (14). According to UNDP (2020), police recorded 328 cases of domestic violence against women and 102 cases of child abuse and neglect in the first 14 days of the lockdown (7). These impacts prompted Mugume (2020) to recommend the opening of domestic violence shelters, encouraging gender-inclusive planning, and extending financial assistance to women entrepreneurs (11). Furthermore, police recorded a 22.7% increase in cases of suicide between January and June 2020, compared to 2019. According to the police, the victims were aged between 17 and 48 (15).

3.3.2 Economic impacts

Preliminary assessments of the short-term impact of the COVID-19 pandemic anticipated that it would: (i) increase the number of poor people by 2.6 million (especially those involved in the informal sector); (ii) lead to significant deterioration of the current account balance owing to the expected severe reduction in exports, tourism receipts and workers remittances; and (iii) contribute to a domestic revenue shortfall of 288.3 billion Ugandan Shillings in the 2019/2020 financial year and 350 billion Ugandan Shillings in the 2020/2021 financial year due to a reduction in economic activity. A further loss of 116.26 billion Ugandan Shillings in customs revenue was expected by the end of June 2020, expanding the overall revenue loss to 513.26 billion Ugandan Shillings by the close of June 2020. Heightened pressure on fiscal space was anticipated as a result of additional expenditure to address rapid response in the health sector and livelihood support for affected persons. Additionally, a decline in economic growth in the 2019/2020 financial year from 6% to about between 4.6% and 5.1% was forecast under the worst-case scenario (7).

Poverty-related effects of COVID-19 include reductions in income and remittances due to job and livelihood losses, loss of markets, and reduced demand for domestic products. Many businesses, for example salons and bars where many women worked, closed due to lockdown, resulting in loss of livelihoods and an inability for many Ugandans to support their families. While about 85% of businesses experienced financial distress, over 9/10 businesses incurred a drop in revenue and high operational costs. The agricultural sector fared worse due to failure to access inputs, low prices of fresh foods, and restrictions on weekly market operations (16). Economic activities relating to sectors like accommodation, entertainment, hotels, manufacturing, retail, wholesale businesses, transport, trade, bars, and import-oriented companies also experienced decline due to a 20% decline in imports. Over 30% of workers failed to access their workplaces due to fear of curfew and lockdown (17).

According to Mugume (2020), the service sector which contributes over 44% of GDP has been severely hit by both international and national measures aimed at containing COVID-19 (11). For instance, tourism, which has been one of Uganda's leading contributors of foreign currency lost over USD \$1.6 billion. This resulted in massive layoffs in the hotel industry (over 1000 workers) causing serious unemployment. It is estimated that more than 116.3 billion Ugandan Shillings were lost due to COVID-19; declines in foreign exchange led to loss of value of the currency, which slumped to 4,000 shillings per dollar (7). Due to lockdown, curfews and bans on MCTs, there was an increase in absenteeism in workplaces, late attendance, and clocking out early. This impacted revenues and resulted in downsizing and laying off staff. At least 100,000 staff, 90% of whom were youths, have lost their jobs due to COVID-19 (7).



4. Perspectives of key stakeholders on COVID-19 and the motorcycle taxi sector

In this chapter the data collected via the key stakeholder/ key informant interviews is presented, analysed and discussed. In each of the six case study countries approximately 15 interviews were conducted (typically about ten with stakeholders in the capital and about five with stakeholders in a second city). A full list of key stakeholders interviewed is presented in Appendix A; these included urban transport planners, traffic police representatives, health workers, and representatives of motorcycle cooperatives. The chapter is organised according to the five semi-structured questions that were asked to the informants.

4.1 Impacts of COVID-19 on urban transport

The impacts of COVID-19 on urban transport and the MCT sector specifically were generally negative, and very significant. For analytical purposes, they are categorized as economic, political and social. According to key informants, MCT drivers were the most affected by the pandemic due to their dependence on daily incomes, which were disrupted by the lockdown. The lockdown was unprecedented and caught MCT drivers unaware. Restrictions on their sector were stricter and lasted longer than those imposed on other modes of public transport, hence were interpreted as punitive.

4.1.1 Economic impacts

There was a severe reduction in daily earnings due to restrictions on movement, time of operation and passenger transport. Initially, the government restricted movements of MCTs between 7am and 2pm. The curfew affected MCTs the most as stated by the chairperson of KAMBE cooperative:

"The other restrictions are for everybody... Restriction on time is what has affected the rider the most" – Chairperson, KAMBE Cooperative.

Following complaints from riders, the curfew was extended to 5pm, and later to 6pm when the pandemic got under control. Despite this, MCTs, continued to be barred from offering passenger transport until June 2020 when this restriction was lifted. Whereas the curfew affected all drivers, it was felt more by those who operated only at night, for example, members of the "night division" of Mbarara city. According to the chairperson of Century Boda-Boda Motorcycle Association (CBBMA), over 80% of MCT work is passenger transport, therefore the ban on passenger transport resulted in heavy losses of income which seriously affected livelihoods.

Relaxation of lockdown measures on private vehicles while maintaining the ban on passenger transport and curfew reduced the clientele, size and amount of merchandise MCTs could carry. Furthermore, despite relaxing the lockdown and extending the curfew, business remained slack due to limited economic activity among the population. At the core of the economic losses suffered by MCT drivers was that the COVID-19 measures encouraged a reduction in mobility, i.e. a reduction in the main mechanism by which MCT riders earn their livelihoods.

The consequences of reduced earning capacity were multifaceted, including poor feeding; an inability to meet personal needs; failure to meet social and financial obligations; indebtedness; and loss of livelihoods. MCTs survive on their daily incomes, as depicted in a local *Kiganda* adage by a key informant from Kampala: "zenkola zendya" literally translated as "I eat what I earn". According to the chairperson of CBBMA, most MCT drivers have large families and dependents, and therefore a failure to earn was disastrous. Many MCT drivers and their families resorted to eating one meal a day or went without meals. Some failed to raise rental fees for homes, stages/ workspaces, and motorbikes. Others missed monthly payments to microfinance companies, Rotating Credit Associations (ROSCAs), and SACCOs for motorcycle hire purchases due to limited business opportunities. According to a leader of SBBC:

"COVID-19 impacted on loan repayments in our SACCO. We had given money to our members but [they] could not pay back because they were not working. We had to reschedule their payment dates" — SBBC Leader.

As a result of failing to pay daily or weekly fees, owners repossessed motorbikes. According to an official of the KCCA this meant loss of livelihoods, because if people do not go to work, they are not able to earn.



Low earnings also resulted in hiking of fares and violations of regulations on carriage, including pillion riding, which prompted violent policing to contain the pandemic. Violation of carriage regulations gave the police an opportunity to take advantage of MCTs by impounding their motorbikes, which led to extortion, bribery and other forms of corruption. Reacting to this, the chairperson of KAMBE cooperative lamented:

"Some riders had gotten used to carrying two passengers, now it has to be one. Police continues to confiscate boda-bodas and money from riders regardless of what time they are working. Corruption in police is real" — Chairperson, KAMBE Cooperative.

A positive consequence of the economic hardship wrought by the restrictions on the sector was the realisation of the value of diversifying livelihoods by MCT drivers. Drivers belonging to SMART Boda-Boda Cooperative (SBBC) began to sell eggs as explained by their chairperson:

We decided to start a new business of dealing in eggs. We had about. Eight million Shillings that we decided to invest in eggs. Remember eggs did not have a lot of market then because hotels, bakeries, and external markets were closed. We mobilized 40 of our members and sold them an idea of selling eggs. We identified a supply point, looked for boxes and boys parked about 40 trays on the bike and started selling them" – Chairperson, SMART Boda-Boda Cooperative.

Some MCT drivers in Mbarara diversified into agriculture, spent more time on it, or took up other activities such as trading. Figure 4 below depicts a driver who dedicated more time to farming while also doing MCT work.

Figure 4: MCT driver from Mbarara with matooke from his farm



Destruction of MCT livelihoods triggered reverse migration, i.e. urban-rural migration. Due to the ravages of lockdown, many MCT drivers flocked to their villages as observed by an official from KCCA:



"Even those who ride, can no longer meet the demands of the family. So, a number of them had to go to the villages because cost of living was high. You have to go to the village where there is food and you don't have to spend money" – Official, KCCA.

Urban-rural flight led to loss of revenue by MCT cooperatives due to non-repayment of loans as observed by the chairperson of SBBC:

We were also cheated in payments because some riders who went to villages never returned" – Chairperson, SBBC

Cooperatives also incurred losses on their investment in motorcycle hire purchase arrangements due to decline in demand for motorbikes.

Urban-rural migration was countered by an influx into the MCT sector due to new entrants and a return of some MCT drivers who had fled to the village. According to a leader of SBBC, few drivers exited the MCT sector, hence the influx caused an imbalance and exacerbated the hitherto existing challenge of regulation. He observed:

"We have a problem, those who left were few, but those who have joined are many. Yes, a few of those who started new jobs will remain there because they have gotten used [to it], but other jobs have released personnel... That is the challenge we have and regulation is hard because we are in a political season" – Leader, SBBC.

4.1.2 Psycho-social effects

According to many leaders of MCT drivers, one of the most serious social effects of the pandemic on MCTs was that it triggered a sharp rise in divorce, separation and family breakdown. According to one estimate, about 70% divorces and family separations occurred among MCT drivers. The chairman of CBBMA attributed the rise in family breakdown to decline in welfare, discovery of marital infidelity and other deviant behaviours among spouses. Commenting on decline in welfare, he stated:

"[Wives of drivers were] used to being given money every day and eating well daily. Now they cannot start on Mukene (silverfish)" – Chairman, CBBMA.³

Other social impacts of the pandemic were decline into deviant behaviours, domestic violence, and denial of medical care in public health facilities.

Due to economic despair, many MCT drivers sold properties like land, motorcycles and mobile telephones, while others acquired loans as stated by the SCDO, Mbarara:

"Many sold some properties like land or livestock or others acquired loans to procure these motorcycles yet they have families to feed and dependents to look after" – SCDO, Mbarara.

Some, however, had nothing or little to sell and lapsed into psychological despair, and depression which resulted in suicide as per the following statement from the chairperson CBBMA:

The house doesn't belong to you; you cannot go to the plantation. There is nowhere to get anything. You may only have 10,000 shillings. You don't know when you will be allowed to drive again. What follows? There is a man I have proof about. He was from Jokers in Bweyogerere. He committed suicide.

The psycho-social effects of COVID-19 were complex.

4.1.3 Political effects

Despite their seeming power and ability to affect political processes⁴ in the country, the lockdown underscored the political marginalisation and vulnerability of the MCT sector and drivers. Transport-related restrictions imposed on the sector were tougher and took longer to be relaxed than for other modes of public transport. To everyone's surprise MCT drivers did nothing beyond adopting risk taking strategies. Risk taking resulted in deepening of the use of negative and criminalising discourse labelling drivers as chaotic, disorganized and uncouth.

³ Despite its nutritional value, eating silverfish is perceived as a form of social degradation (of rank/status).

⁴ The power of MCT drivers derives from their large numbers and potential for or actual violent conduct.



Given the weakened position of MCT drivers and their cooperatives, the Kampala Capital City Authority took advantage and proposed a comprehensive urban transport management plan to reform the MCT sector. The plan, which aimed at sanitising and modernising the city by removing MCTs from the Central Business District and reducing their numbers significantly in city divisions, was however resisted by leaders of MCTs.

4.2 Transport-related restrictions and consultations in the MCT sector

4.2.1 Transport-related restrictions imposed on the MCT sector

Three types of measures were introduced during the COVID-19 lockdown: public health measures, urban management/ management of urban space, and transport-related regulations. MCTs knew almost all public health measures passed by the government, e.g. hand washing; use of sanitisers; wearing of face masks; and physical distancing. Some were equally knowledgeable about transport restrictions on MCTs, for example the bar on pillion riding; curfew regulations; regulations on carriage, for instance carrying only merchandise/cargo; and registration of passengers. Whereas most restrictions were cumbersome, registration of passengers was perhaps the most challenging due to weather elements, illiteracy of most MCT drivers, and clients' concerns about personal safety. Wearing helmets was also problematic because women shunned it to avoid spoiling their hair. Use of sanitisers was very expensive and unaffordable by most MCTs, hence some resorted to using soap.

COVID-19 was a blessing in disguise for urban officials in Kampala and Mbarara because it emptied streets and controlled population movements. As a result, urban authorities proposed and/or undertook a wide range of urban management measures piggy backing on public health measures. In Kampala, authorities used the lockdown to remodel city roads, turning two-way into one-way streets and gazetting non-motorable streets to ease pedestrian walking. Most importantly, they proposed regulations on MCTs including restrictions on their movements in the Central Business District (CBD). In Mbarara, MCTs were barred from parking along the intercontinental highway (Main Street) to enable free flow of traffic; officials also gazetted some stages in the city centre; limited the number of MCT drivers on each stage to only ten; and required drivers to work on alternate days to reduce risk of exposure to COVID-19.

4.2.2 Extent of consultation of MCT drivers and associations

Generally, MCT drivers and their associations were not consulted on public health measures or restrictions on transport. The measures and restrictions were top-down. The majority were issued as presidential directives. According to the chairperson for KAMBE cooperative, Kampala Central Division:

"Government never consulted us before putting these restrictions. Experts sat there and agreed on how the boda-boda industry will run during the lockdown. That is why they said that riders cannot social-distance with the passenger" – Chairperson, KAMBE Cooperative.

Measures put in place by cities were also non-consultative and revanchist: urban authorities took advantage of lockdown to propose emptying/ removal of MCTs from city centres, and the reduction of MCT stages in city divisions. Because of lack of consultation and their underlying aim, MCT drivers and their associations protested the measures. They did so by attempting to force authorities to meet them. This was further elaborated by the chairperson of KAMBE, as follows:

"We were just called for a meeting because of the situation. We told them that we both had to discuss the restrictions before they started enforcing them" – Chairperson, KAMBE.

Given that MCT leaders were not consulted and facilitated financially, they neither embraced nor helped to enforce the restrictions. So did the entire sector. Lack of support from leaders also made restrictions unenforceable. It should be noted that MCT leaders wield immense power and influence, and anything they do not endorse in the sector can hardly succeed. Realising that they would not succeed unless they involved MCT leaders⁵, the Kampala Capital City Authority, Ministry for Kampala, Ministry of Transport, and Ministry of

⁵ Despite being legally mandated to manage cities, urban authorities lack real power to enforce anything. Therefore, to secure buy-in of the MCT leadership, KCCA had to piggy bag on the power of Ministries of Central Government. Still, they were not successful because real power in Uganda lies with the president, who could not risk alienating MCT drivers given that there was a pending election.



Security invited them to "discuss" the proposed changes in urban management. These "consultations" were ideally aimed at making MCT leaders ratify the measures rather than genuinely involving them in participatory urban planning. They were also politically motivated because of the pending national elections. Their significance was not lost on the MCT leaders, however, who rejected them.

4.2.3 Extent to which MCT drivers complied with COVID-19 restrictions

Compliance with COVID-19 restrictions in Uganda is generally problematic. One could almost map it on a continuum with various modes of compliance ranging from total compliance (especially at the outset of the pandemic) through symbolic compliance and inconsistent adherence to non-compliance (currently). Most MCT drivers in Kampala reported that they complied for the first two months of the lockdown. Thereafter, they violated the restrictions due to the need to survive rather than simple lawlessness. According to the chairperson of CBBMA:

"Being at home with children but having nothing to eat, not anticipating anything as if you are a dog. He decides to risk with a chance that he would be caught and be fed in prison. Not simply because they wanted to be lawless" – Chairperson, CBBMA.

In contrast, the majority of MCT drivers in Mbarara seem to have complied longer than those of Kampala. Despite lacking a city-wide union or association, MCT drivers in Mbarara are more organised at division and stage levels than those of Kampala where the sector is larger and more fragmented. Hence, there was easier communication flow and self-policing through these structures. Commenting on compliance among MCT drivers, the Mbarara City Commercial Officer observed:

"We make sure on a daily basis that everyone who comes to the stage must have a mask and sanitizer. If they don't have them, they must not work. They will lock his motorcycle for the whole day at a particular stage. You can move around and check. Even outside here is a good example" — Commercial Officer, Mbarara City.

MCT drivers who complied with the restrictions did so to be able to work, i.e. for convenience. The costs of the lockdown were so immense that they simply wanted to get out and earn a living. Otherwise, compliance was not voluntary or wilful. only were the restrictions very stringent, they were also more prolonged than for other modes of public transport. Thus, MCT drivers interpreted them as punitive. Moreover, as earlier noted, restrictions enacted by urban authorities were revanchist, intended to remove from cities what an official from Mbarara dubbed a menace.

Non-compliance by MCTs was a form of resistance. It was a protest against relaxation of restrictions on movement for other modes of public transport, and private motorists, while maintaining restrictions on MCTs. According to a SCDO of Mbarara,

"It is illogical. A car has passengers seated close to each other and 4 people closed inside and sharing same breath. But a boda-boda is open-faced with good aeration with minimal contact. MCTs could have had standard operating procedures... they could have complied and not shut them off completely" – SCDO, Mbarara City.

Because there are no taxis in many areas served by MCTs, this meant that there was demand for their last mile services, hence the temptation to carry passengers. Relaxation of restrictions on movement generally, but not for MCTs, made MCT drivers believe that they, their clients, or generally the poor were being deliberately targeted by the state. Furthermore, resistance was a protest against an alleged plan by the President to "steal" the forthcoming elections and a belief that COVID-19 did not exist as highlighted by the Chairperson of CBBMA:

"Some are even saying the disease doesn't exist. We have been trying to be sensitive to drivers, but one asked us whether the disease exists. Others alleged that COVID-19 was an excuse for the President to steal the election. It was politicised" — Chairperson, CBBMA.



Figure 5: Impounded motorcycles at Kampala Central Police Station



It should be noted that non-compliance was costly to law enforcement agencies, MCT drivers and the public. Attempts to ensure compliance by law enforcement agencies was characterised by violence, bribery, extortion, and the impounding of motorbikes. As a result, MCT drivers hiked fares due to demand and fear of being arrested or having their bikes impounded. This was underscored during a meeting with MCT leaders, urban authorities and Police in Mbarara, in which a leader noted:

"They risked moving about to get what [they needed] to feed their people and engaged in running battles with police. A rider in Biharwe almost knocked down a traffic police officer because of curfew. He rode and disappeared. It is a risky affair" – MCT Leader, Mbarara.

The full extent of the challenge of non-compliance can be seen in Figure 5, which shows motorbikes impounded for violating COVID-19 restrictions by the traffic police in Kampala.

4.3 Social and technological innovations and adaptations made by motorcycle taxi operators

MCT drivers attempted to introduce two technological innovations, namely a sheet of glass separating the driver from the passenger, and online platforms. The first two innovations were championed by MCT cooperatives/ associations in Kampala, while the last one was by MCT drivers in both cities. The government rejected the glass innovation as well as the online Apps. According to government officials, the glass shield would harbour the virus instead of protecting the passenger from the driver. The Regional Traffic Officer for Rwizi region (which covers Mbarara) further argued that the glass/ shield would be disastrous during accidents. Echoing the general stance of government, he added that the glass shield was a recipe for spreading COVID-19.

There were, however, several adaptions of existing technologies to make MCT livelihood more resilient. For instance, MCT drivers in Kampala embraced e-commerce using mobile money to avoid direct financial transactions and to expand their clientele. Many MCT drivers who had their clients' telephone numbers relied heavily on mobile money banking during the lockdown. During the lockdown, United Nations Capital Development Fund (UNCDF) partnered with SafeBoda in Kampala to promote the use of the SafeBoda App for online shopping by modifying it to include the capability for e-commerce. Besides this, MCT drivers with smart phones used online platforms like WhatsApp and Facebook to maintain business during the lockdown. These technological adaptions had great potential for reducing the spread of COVID-19.



Figure 6: Branded face mask supplied by ZOCTU



In addition to e-commerce and mobile money banking, some MCT cooperatives including KAMBE and SBBC launched online Apps for e-commerce which had been rejected by the government. Using their Apps, the two cooperatives launched their own delivery teams of MCT drivers that distributed eggs, food and other items to households during the lockdown. The App for KAMBE also has online cab hailing capabilities as stated by the chairperson:

"We have a digital system that could work...No one will request to be dropped somewhere without first registering with his/ her particulars. On the App we can get to know everything about the rider and the passenger, even if you want records for a week, the system can give you the details" — Chairperson, KAMBE.

A private company called ZOCTU partnered with SBBC and drivers to use its phone-based App during the lockdown. Apart from the platform, ZOCTU also distributed branded face masks to MCT drivers using its App to help to protect them against COVID-19 as illustrated in the figure above.

Besides efforts of MCT cooperatives and associations to make innovations to fight the COVID-19 pandemic, individual MCT drivers tried to comply with general public health guidelines, e.g. wearing of face masks, physical distancing, sanitising, and hand washing. They also tried to comply with transport-related Standard Operating Procedures (SOPs) like driving only one passenger, carrying only luggage and registering passengers, and developed innovative ways of attaching hand sanitisers to their motorbikes as can be seen in Figure 8.

Figure 7: Innovation for registration by KAMBE Cooperative

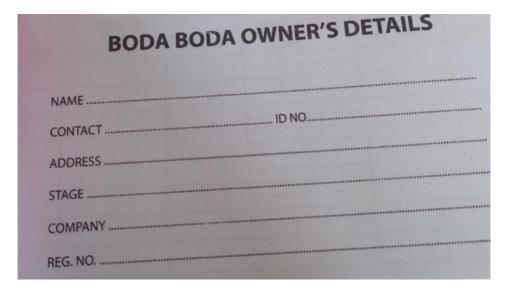




Figure 8: Hand sanitiser attached to a motorcycle



Some SOPs like registering MCT drivers were difficult to implement because of refusal by passengers to divulge their telephone numbers to MCT drivers for security reasons as stated by the chairperson of SBBC:

"Registering passengers could not work. We tried to advise government, but it looks like his people fear him. We told them right away that recording would not work. People have fallen victims to conmen who called them on [the] phone and fleeced them of money" – Chairperson, SBBC.

Registration was also bound to fail due to illiteracy of MCTs drivers as well as passengers as further noted by the chairperson SBBC:

"This is a job for people who did not go to school. Most riders do not know how to write. If such a rider gets a customer who did not go to school at all, how will they work it out? They later saw that indeed it could not work, but kept on telling us to try our best" – Chairperson, SBBC.

In addition to the above technological innovations, MCT drivers also innovated socially, for example through livelihood diversification, or by abandoning MCT driving and starting completely new/ alternative livelihoods like farming or construction. For many drivers, COVI-19 was a great teacher that had taught them to work, save, and avoid relying on one income stream. Some leaders estimated that 15 to 30% of drivers took new informal sector jobs. This insight was articulated succinctly by the Chairperson of KAMBE cooperative:

"Some have been taught how to work. They have diversified their sources of income. Some have started small businesses like selling food stuffs and food delivery. Others have since picked a lesson and have started saving to buy their own plots of land and build" – Chairperson, KAMBE Cooperative.

To support their members, some cooperatives organised field-sales of masks to MCT drivers and the public, rescheduled loans, reduced interest rates, and advanced credit to members to enable them to start small businesses.

Some social innovations were, however not in the public interest. For instance, some MCT drivers engaged in forms of social predation like increasing the fare per kilometre and pillion driving to compensate for income losses caused by lockdown or by police corruption. According to an official of the KCCA:



"To compensate for the other passenger, they have doubled the price. On a journey from Kampala to Luzira which should be 5,000 shillings, the rider will say, [you will pay me twenty or fifteen thousand. This is the COVID-19 situation. We also can't do much. A poor person will not use MCTs]" — KCCA Official.

By and large, social innovations were designed to cope with the adversities of the lockdown rather than to prevent COVID-19.

Social innovations made or organised by MCT cooperatives/ associations and drivers in partnership with private sector or on their own namely, "tugobe corona", meaning "we kick out corona", which was an awareness and immunity boosting campaign. According to the chairperson of SBBC:

"Recently we have started on a new campaign, but some big people are taking it over. We had dubbed this campaign 'Tugobe Corona'. As an association, we wanted to look for companies that would help us in this campaign, especially in awareness creation" – Chairperson, SBBC.

Further, at the time of the interview, SBBC was about to initiate a campaign for boosting the body's immunity using home remedies like lemons, garlic, red pepper, onions and ginger. Together with the awareness campaign, this would help prevent COVID-19 as noted by the chairman:

"We shall be blending them into four litres every week for everyone who comes here to take [it]. Our awareness campaign will also take riders through immunity boosting" – Chairperson, SBBC.

4.4 Importance of mobile phones and apps during lockdown and in the future

Mobile phones were very important to MCT drivers during the lockdown because when the government allowed them to transport only merchandise, they resorted to taking orders for groceries and other household needs from their clients through mobile phones. Hence, for the drivers that stayed in the cities, mobile phones were indispensable for their livelihoods during the lockdown. Some drivers used Mobile Money Banking platforms of the major telephone companies to send or and receive payments. They also used Facebook, WhatsApp and other mobile Apps to secure business. Others were contacted by phone by people who needed to hire their motorbikes to run personal errands. Many drivers registered on the SafeBoda App the capability of which had been enhanced beyond ride hailing capabilities to include options for deliveries following a partnership between SafeBoda Company and UNCDF.

Other than these cases, uptake and use of Apps during COVID-19 was limited due to lack of awareness, sensitisation, and training among MCT drivers. According to the chairperson of KAMBE cooperative, there is poor marketing of existing Apps which has affected their uptake. Therefore he observed:

"Whoever has an App must sensitise people about its advantages. Many come up just to compete, but find themselves in losses at the end of business. People must be taught about these Apps because that is the life we are going into" — Chairperson, KAMBE Cooperative.

To avoid mistakes made by existing App companies like SafeBoda, the chairperson of KAMBE stated that they were trying to teach their members how to use the App, and the benefits associated with adopting it:

"We also have an online App but we are still teaching our members about it. Riders must know that they drop deliveries, be paid on it and also save from it" — Chairperson, KAMBE Cooperative.

4.4.1 Potential role of mobile phones and mobile phone-based applications in MCT industry post-COVID-

There is great potential for mobile phones and mobile phone-based Apps to revolutionise the MCT sector. Although there were no mobile App companies registered in Mbarara City, MCT drivers and leaders noted the importance of mobile Apps. They believed that if used, Apps would reduce congestion at stages and assure every driver of potential fares, meaning that drivers would not need to stay at stages waiting for clients. Apps would not only help drivers and passengers to reduce the time they spent bargaining over fares and the conflicts likely to emerge, they would also save clients from being cheated by uncouth drivers. Clients would only pay the standard fare from the App.

Furthermore, Apps would protect drivers from thieves because they store personal details of drivers and passengers. Drivers can also be tracked, thereby increasing their security and that of their motorbikes.



Because phone-based Apps require one MCT driver to drive one passenger at a time, this would increase safety from criminals, create business for other drivers, and reduce high rates of pillion driving. Insofar as safety of the driver is concerned, Apps would revolutionise the industry because companies require that drivers registered with them wear helmets, observe speed limits, and possess driving licenses. Additionally, registering motorbikes would become easier if done under the aegis of an App company rather than individually by the driver.

However, for the above to happen, many challenges need to be overcome (in addition to lack of awareness, training, sensitisation and poor marketing) highlighted above. For instance, there is a need to deepen the structural transformation currently on-going in the MCT sector, notably the shift from associations to cooperatives. It is hoped by leaders of the sector that this shift will not only create order, but also increase the bargaining power of cooperatives compared to associations which are fragmented. Commenting on the importance of having more bargaining power, the chairperson of SBBC stated:

"If we have many members, we have bargaining power. With many members we can bargain for free calls and internet from telecom companies, or at subsidized prices" — Chairperson, SBBC.

According to an informant from Yellow Bird, an App company, there is also a need for government to encourage MCT drivers to use Apps, or to develop an App that all MCT drivers can use. This idea was also proposed by the chairperson of KAMBE, Kampala Central Division, who noted:

"It would have worked if at all there is only one online company, preferably a government controlled online App" – Chairperson, KAMBE.

It should be noted that as part of the failed KCCA attempt to "modernise" the MCT sector during the lockdown, every MCT driver was required to register with a mobile App company. However, this requirement and the entire plan backfired due to failure to consult with riders and politicisation of city management.

To realize the potential role of mobile phones and mobile phone-based Apps, government or urban authorities need to end the unfair pricing of App companies. According to various informants, there are many unregulated App companies competing in the market. The cost of the high competition is passed on to MCT drivers who earn less per kilometre travelled compared to what goes to the App companies. This has resulted in drivers quitting Apps because it is not profitable to use them. This problem was articulated by the chairperson of KAMBE, Kampala Central Division, as follows:

"These companies mind about only themselves and their clients. They don't care about the riders. For example, from here to Old Kampala, an ordinary Boda-boda rider charges 2000 shillings and online Apps charge 1000 shillings. Riders have now started seeing that online Apps are not favouring them, that's why some have started leaving them" — Chairperson, KAMBE.

Not only are companies exploiting MCT drivers through low pricing per kilometre, but they are also not supporting them with ancillary services like loans:

"There is nothing much they have helped riders with after they have joined, like getting a bike on loan. They are just after money" — Chairperson, KAMBE.

According to the marketing manager of ZOCTU, other challenges in realising the transformational potential of mobile phones and mobile phone-based Apps is the high cost of data and the lack of commitment among MCT drivers to use online Apps. These challenges are exacerbated by what may be referred to as lack of civic competence, including low levels of education/ illiteracy and poor appreciation of development, specifically lack of technological savviness. For example, some forget to turn on the Apps (i.e. be online), yet it is the only way they can be "seen" and therefore, easily reached by potential clients. According to the Marketing Manager of ZOCTU:

"[Some] riders do not know how to use a smart phone. We always sit down with those who do not know and we teach them. Others always forget to be online. Usually, we call and send messages to remind them to be online" – Marketing Manager, ZOCTU.

Furthermore, some companies like ZOCTU require MCT drivers to register with associations, yet associations are very unstable and highly politicised.



4.5 Motorcycle taxis as a low-risk means of transport?

There are several factors that can make the likelihood of COVID-19 transmission lower for motorcycle taxis than for more conventional modes of public transport. MCTs carry fewer passengers per trip and typically have considerable fresh-air flows around the operator and passenger(s). On the other hand, wearing of helmets for motorcycle taxi transport can be a potential source of virus transmission, particularly if it is integral rather than an open face helmet. An increasing number of regular motorcycle taxi passengers use their own helmets. So do the interviewees agree with the proposition that motorcycle taxis pose less risk and if this would be the case, should their use be promoted?

MCT drivers and leaders overwhelmingly asserted that MCT transport should be promoted as opposed to law enforcement officers who were opposed. The contrasting views between drivers and law enforcement personnel are discussed below.

4.5.1 Why MCTs should be promoted

MCTs became popular in Africa after the disbandment of public transport due to Structural Adjustment Policies (SAPs) of the World Bank (WB) and International Monetary Fund (IMF). Following its demise, transport provision by the private sector did not grow quickly, comprehensively or agile enough to meet the transport needs of the growing populations in SSA, creating a void that was filled by MCTs. Despite the unprecedented proliferation of MCTs, public transport is still a big challenge in most of SSA. Therefore, it is not surprising that MCT drivers asserted that MCTs should be promoted based on various attributes that make them superior to dominant modes of public transport, namely mini and midi-buses. The attributes of MCTs include being convenient, fast, and able to travel to hard-to-reach places (e.g. areas with bad roads and rural areas), or places not served by conventional modes of transport. MCTs traverse spaces un-traversable by formal public transport means, thereby providing a bridge between these spaces/ places and the well-served (usually towns and cities) places. MCTs also offer short distance journeys/ trips (first and last mile services) compared to conventional modes which offer long distance travel. Thus according to drivers, MCTs should be promoted to continue to complete the travel cycle.

MCT drivers supported promotion of MCTs based on their convenience, notably meeting client's specific travel needs like instant/ quick availability and flexibility of routing and travel time. These needs cannot be met by conventional modes, or could be, but at a greater cost than the majority Ugandans can afford. Furthermore, MCT drivers stated that MCTs should be promoted until alternative modes of transport are developed. In cities like Mbarara without public means of transport e.g. taxis, MCTs are the only alternative for town-service. Even in Kampala with conventional modes of transport, MCTs play a very big role. According to a study by Kumar (18), MCTs offer up to 33% of transport services on select road links in Kampala.

According to MCT drivers in Mbarara, MCTs have a lower risk of infection than taxis, hence they should be promoted. This is because most offer short distance services close to their homes, which minimises contact and therefore lowers the risk of contracting COVID-19. According to them, MCTs carry fewer passengers than taxis and passengers cannot spread COVID-19 to a MCT driver since the ride occurs in an open environment and the wind blows backwards. Moreover, the physical distance between client and driver on MCTs is the same as that between passengers in taxis, and it is more difficult to disinfect a taxi after each trip than a motorbike. At the same time, it is possible to innovate to ensure safety on an MCT. For example, drivers cited the innovation of the glass separating MCT driver from passenger that they introduced in Kampala but was rejected by government. Lastly, MCT drivers and their leaders insisted that MCTs can comply with the government's Standard Operating Procedures (SOPs).

According to MCT drivers, there was no reason whatsoever to justify their continued lockdown when other sectors of the economy like taxis, markets, and shops had been opened. This view was supported by the City Commercial Officer of Mbarara City who reasoned that besides opening other risky sectors, COVID-19 seemed not be going away soon:

"The boda-boda riders should be allowed to operate because other businesses are operating. Markets are operating and there is congestion there. This pandemic is still here with us and it's hard to be controlled" – City Commercial Officer, Mbarara City.



He argued that government should instead focus on mitigating and controlling COVID-19 by registering riders and emphasising the SOPs.

More importantly, participants argued that MCTs should be promoted and the ban on them lifted because the sector is a major source of livelihood for millions of "youths", 6 with an estimated two million or more employed within the sector. To emphasize its importance, most drivers used the phrase *feeds many people*. In addition, incomes from MCTs support education as a driver from Kampala stated:

"I have educated all my children in good schools from driving MCT" – MCT Driver, Kampala.

Furthermore, MCTs sustain or have backward and forward linkages with nine other "dependents" in addition to drivers, including banks, MCT driver's families, landlords, food vendors, fuel stations, garages, washing bays, parking lots, and government. Failure to promote them by organising and regulating them risks harming these beneficiaries and promoting criminality.

MCT drivers also suggested that they should be allowed to work while maintaining strict enforcement of SOPs, e.g. banning crowding at stages and closure of borders. Regarding avoidance of crowding at stages, the Mbarara City management reduced the number of MCT drivers per stage to ten and alternated their working days. Finally, they proposed that in areas where there are many cases of COVID-19, MCTs must be restricted from operating and police should conduct checks and avoid harassment.

Finally, in addition to being promoted, MCT drivers and leaders observed that government must ensure their economic empowerment through (i) increasing access to low interest loans and rescheduling or waiving existing ones; (ii) fulfilling the social contract by increasing civic competence; (iii) improving social services; (iv) enhancing state-society relations; (v) promoting participatory urban governance and management through consultation; (vi) recognition and endorsement of MCTs as major actors or stakeholders in the cities' transport sector; and (vii) formalising, organising, regulating, registering, taxing, and legitimising the sector.

4.5.2 Why MCTs should not be promoted

Although MCTs have a lower risk of infection due to low carriage (compared to taxis), according to government they pose a greater risk than other means of transport due to their capacity to circulate over wider spaces. According to the RTO of Rwizi, the dynamics of their movement (e.g. constant circulation without specific routes like taxis) makes them very dangerous. This is because it is difficult to trace contacts as their points of origin are difficult to trace. According to the RTO:

"A motorcycle that came from Kabuyanda, when it gets to Mbarara, you cannot recognise it. It's just a motorcycle. You who is from Kabuyanda and one who is not from there, you can still use the same motorcycle as long as you are in town. Because the guy will keep circulating" – RTO, Rwizi.

Being providers of last and first mile services, MCTs penetrate deeper into the community than taxis hence can transmit COVID-19 more swiftly. Furthermore, during travel, droplets of tears and mucus from the driver go back toward the passenger, posing more risk to him than in a taxi. By their nature and size, there is no physical distancing between the driver and passenger, let alone the difficulty of enforcing the regulation against pillion driving. Thus, a driver may carry more than one passenger, increasing the risk of contagion more than expected.

Despite having low carriage capacity, MCTs pose a greater danger than other modes of public transport due to lack of regulation. MCTs in the two cities are generally unregistered and unlicensed. Although there is a semblance of registration at stages, it is informal. Many drivers lack any form of identification, have no fixed places of operation, and no fixed or clear routing. As a result, the entire MCT sector in the two cities is uncontrolled and outside the realm of the states' governing orders, making it difficult to trace contacts.

⁶ Many MCT drivers are far above the biological cut off age for youth i.e. 35 in Uganda. However, the term "youth" continues to be applied to MCT driving given that majority of drivers are with the youth category of 15-35 as per the National Youth Policy.



5. Motorcycle taxi survey findings

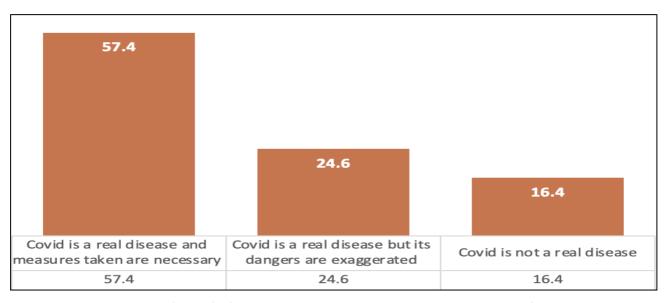
5.1 Findings

Below the survey findings of the motorcycle taxi surveys are presented. Sixty one surveys were conducted, almost evenly spread across the two cities-Kampala and Mbarara. Twenty-nine respondents (47.5%) were from Kampala, while 32 (52.5%) were from Mbarara. All respondents, save one, were male. The findings below focus on perceptions of COVID-19 among MCT drivers, impacts of COVID-19 on MCT drivers, restrictions on the MCT sector to stem COVID-19, consultation with MCT drivers, trust in institutions regarding restrictions, enforcement of restrictions, and social and technological innovations by MCT drivers.

5.2 Perceptions and impacts of COVID-19 among MCT drivers

Whereas 57.4% of the respondents believed that COVID-19 is a real disease and that the measures taken to stem it were necessary, 24.6% felt that it was a real disease, but its dangers had been exaggerated. In contrast, 16.4% doubted that COVID-19 was a real disease. Overall, an overwhelming majority perceived COVID-19 to be a real disease as illustrated in Figure 9 below.





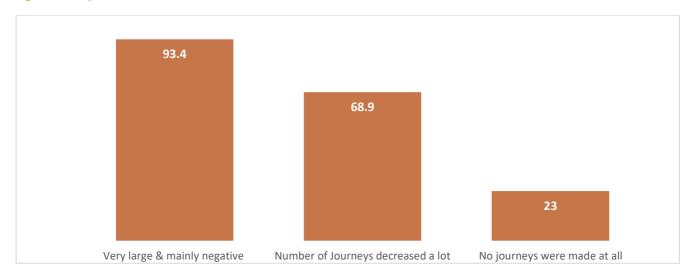
An overwhelming majority (93.4%) of MCT drivers interviewed stated that the impact of COVID-19 had been very large and mainly negative. Approximately 69% highlighted that due to the restrictions imposed on their sector (particularly the lockdown), the number of journeys made decreased a lot, while 23% noted that no journeys were made at all.

19

⁷ Only one female rider was interviewed in Mbarara.



Figure 10: Impacts of COVID-19 on MCTs



5.3 Restrictions on MCTs during COVID-19 and trust in institutions regarding measures

MCT drivers were asked about the nature of restrictions imposed on their sector and whether they had been communicated clearly. Whereas 93% knew that some restrictions had been imposed on the sector, there was confusion among MCT drivers pertaining to the nature of restrictions imposed on their work during the Covid-19 lockdown as illustrated in the table below:

Table 1: Restrictions imposed on the MCT sector

Nature of Restrictions	% Yes	% No	% Total
MCTs allowed to operate during lockdown	67.2	32.8	100
MCTs only allowed to operate along certain routes	11.7	88.3	100
MCTs only allowed to operate at certain times of the day/ night	91.8	8.2	100
MCTs only allowed to transport merchandise	29.5	67	96.5
MCTs allowed to operate with no more than one passenger	12	88	100
MCTs only allowed to operate if following certain health measures	36	62.3	98.3

Gaps in knowledge of COVID-19 restrictions can be discerned by looking at how MCTs perceived how clearly, they had been communicated. About 41% of MCT drivers believed there were some confusion in communicating the restrictions. Table 2 below summarises findings on clarity of communication of restrictions.

Table 2: Clarity of communication of restrictions

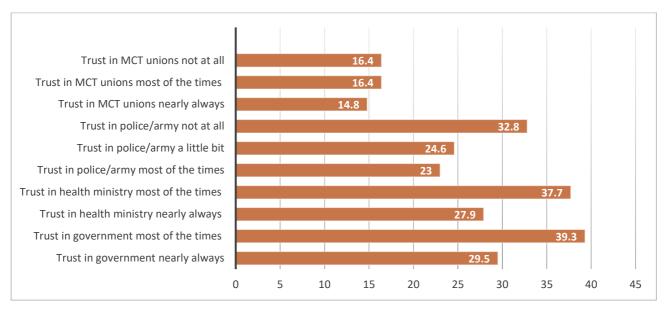
Communication	Frequency	Percent
Overall, clearly communicated by government and health departments/ ministry	35	57.4
Generally, clearly communicated but there has been some confusions	10	16.4
Not clearly communicated by government with lots of confusion over what is allowed and not allowed	15	24.6
Were communicated but only in English	1	1.6
Total	61	100

To understand the extent of involvement of MCT drivers in decision making by government, the study investigated whether they had been consulted about the above measures. The majority (82%) stated that they had not been consulted. All measures were received by the population (including MCT drivers) as



government directives. This perhaps explains why less than half (49%) of MCT drivers believed that most riders followed the restrictions most of the time, while 28% thought that a few followed, but many did not. Also, lack of consultation could account for low trust in formal and informal institutions, namely, the government, police, army, health ministry, and the riders' own associations/ unions as illustrated in Figure 11 below

Figure 11: Trust in institutions by MCT drivers

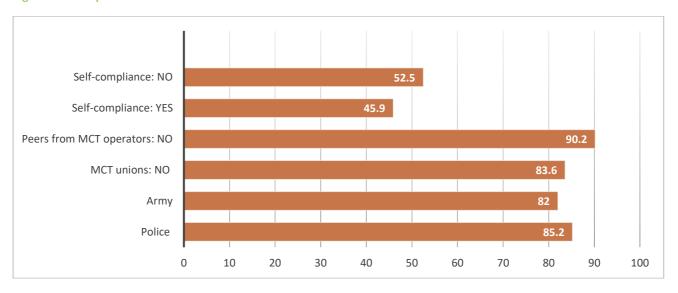


Besides not being consulted, low levels of trust in public and informal institutions were due to the prolonged nature of the restrictions on MCTs. Before the pandemic, MCT drivers were staunch supporters of the regime, particularly the President, because he had always intervened to stop city authorities from implementing measures aimed at streamlining the industry, which would be costly to riders. During the pandemic, the MCT sector did not get the usual support from the head of state, hence their disappointment and a sense of betraval.

Low levels of trust likely affected compliance, and perhaps shaped the violent modes of enforcement of restrictions adopted by the police and other law enforcement agencies. Slightly over half of the sample did not think MCT drivers exercised self-compliance compared to 46% who believed they did. Peers and MCT associations/ unions had very limited influence on drivers' compliance with restrictions, leaving enforcement to the police (85%) and army (82%). Given the high stakes (risk) of the pandemic, and violations of restrictions by MCTs, the police and army enforced them much more forcefully compared to normal times as stated by 93.4 % of drivers. As stated in the qualitative findings, compliance and non-compliance with the restrictions were instrumental because of the strong motivation to work and earn a livelihood. Thus, it is not surprising that the police and army were more forceful in a bid to contain the pandemic.



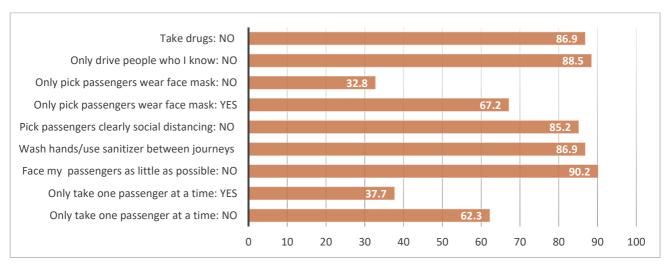
Figure 12: Compliance with restrictions



5.4 Social and technological innovations

Some MCT drivers tried to adapt government measures such as only picking passengers wearing face masks (67.2%), washing hands/ using hand sanitisers between journeys (87%), only taking one passenger at a time (38%), and wearing a face mask (95%). Other social and technological innovations MCT drivers could have taken were not adopted as illustrated in figures 13 and 14 below. However, the qualitative findings highlighted innovations like online Apps, a glass shield separating driver from passenger, livelihood diversification, and awareness campaigns that were not anticipated during the design of the survey tool.

Figure 13: Social innovations made by MCT drivers





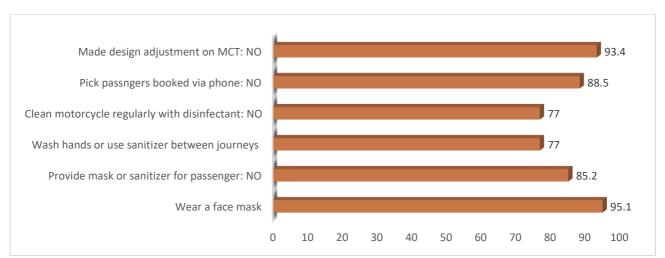


Figure 14: Technological innovations made by MCT drivers

6. Conclusion

This study aimed to understand the impact of the COVID-19 outbreak (including the measures and restrictions put in place to reduce its spread) on the urban motorcycle taxi sector in Uganda, using a mixed methods approach. Key stakeholder interviews and a survey were conducted in two cities — Kampala and Mbarara. The findings were shared in city workshops and a regional (Sub-Sahara Africa) Webinar involving various stakeholders at national level including transport officials, urban planners, academics, and MCT leaders and drivers.

COVID-19 in Uganda became a serious issue in March 2020. The most extensive and strictest public health, political and law enforcement measures in the region were decreed and emphasised in numerous Presidential addresses throughout the remaining months of 2020. The findings indicate that the pandemic had far reaching and complex economic, social, political, and psychological impacts on MCT drivers and the sector as a whole. Perhaps the most biting impact was reduced earning capacity due to lockdown and restrictions on offering passenger transport which, according to some estimates, accounts for about 80% of all earnings by MCTs. The consequences of low earnings were multifaceted and spiral-like, including poor feeding, inability to meet personal needs, failure to meet social and financial obligations, indebtedness and loss of livelihoods. Low earnings further resulted in hiking of fares for trips, due to "reduced" load, but mainly inability to carry passengers. Reduced load also led to violation of regulations on carriage i.e. pillion riding. Violation of regulations on carriage led to violent enforcement, corruption, extortion and impounding of motorbikes. In a bid to save their earnings, MCT drivers sometimes attempted to escape from police and other law enforcement agencies, which could lead to accidents. Quite often, drivers involved in accidents were denied medical care in some health centres as they were blamed for being reckless and criminal, i.e. refusing to abide by the COVID-19 restrictions.

The restrictions on MCTs also underscored the importance of livelihood diversification for sustainable livelihoods. Many drivers diversified into business, agriculture, and construction to augment low earnings from MCTs. Other drivers quit the MCT business temporarily or permanently and adopted new jobs or started new businesses. The destruction of MCT livelihoods triggered reverse migration, which resulted in some MCT cooperatives losing revenue due to non-repayment of loans and being forced to reschedule some.

The pandemic also had social consequences like family fracturing including divorce and separation, psychological distress, depression and suicide. Prior to COVID-19, the MCT sector was believed, among other informal sector workers, to wield immense political clout because of their numbers, youthfulness, capacity for violence and good relationship with the political establishment (via instrumentalization/ deployment as security agents) and were therefore believed to be "untouchable". However, this was not possible as the political establishment had a bigger challenge to deal with that required securing the entire population, and hence implemented biting restrictions on the sector. The long lockdown and tough measures on the MCT sector underscored their political marginalisation and vulnerability.



It should be noted that the transport-related restrictions put in place by government and urban authorities were non-consultative, as were the public health measures. Because of this, the measures were not complied with. Measures by urban authorities were interpreted to be revanchist and were thus resisted. Late consultation on the measures aimed to secure buy-in, rather than ensuring participatory urban planning. Overall, compliance with the entire bundle of restrictions was short-lived and instrumental, i.e. MCT drivers simply wanted to be able to work. Non-compliance had a political edge to it also: many MCT drivers in Kampala believed the lockdown and prolonged restrictions on their industry were designed to facilitate the President to "steal" the upcoming elections.

Faced with the pandemic, MCT drivers took various social and technological innovations and adaptations. Most social innovations were generally aimed at coping with rather than preventing the pandemic. Only two social innovations were preventive; however, both these and the technological innovations made by MCT cooperatives were rejected by government. MCT drivers also made several adaptions of existing technologies to make MCT livelihoods more resilient, for instance the use of e-commerce through mobile money banking, Facebook, and WhatsApp. MCT cooperatives also partnered with online App companies to have their members enrolled, and some rolled out their own Apps. Operators in Kampala and their cooperatives were more socially and technologically innovative than those of Mbarara, partly because of the primacy of Kampala and the longer duration of existence of the MCT sector in the city. Thus, to realise the potential of online App technologies, there is a need for companies to expand online applications to other cities beyond Kampala. Also, there is need to deal with other challenges that limit use, such as high cost of data, and lack of training and sensitisation.

Regarding whether MCTs should be promoted given their assumed lower risk of spreading COVID-19, results were contradictory. Officials of government were opposed to promotion, arguing that it would be a recipe for the uncontrolled spread of the pandemic, while MCTs supported it because of the benefits that would likely accrue to them. MCT drivers and leaders recommended that in addition to being promoted, government should undertake measures aimed at empowering them economically, fulfilling the social contract, promoting participatory urban governance, and rationalising their sector. For these measures to succeed, however, there is an urgent need to end or drastically reduce political interference in urban management.



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APPENDIX A: KEY STAKEHOLDERS INTERVIEWED

Representatives of the following organisations/ institutions were interviewed

- Chairman Kampala Metropolitan Boda-Boda Entrepreneurs Cooperative Saving and Credit Society (KAMBE), Kampala
- Chairman Kampala Metropolitan Boda-Boda Entrepreneurs Cooperative Saving and Credit Society (KAMBE), Central Division
- Chairman SMART Boda-Boda Cooperative and Saving Society
- Chairman Century Boda-Boda Motorcycle Association, Kampala
- Chairman Century Boda-Boda Motorcycle Association, Nakawa Division
- Former Chairman of Boda-Boda 2010 Association, Nakawa Division
- Transport Officer, Kampala Capital City Authority (KCCA)
- Traffic Officer, Kira Road Police Division
- Regional Traffic Officer, Rwizi Region
- Traffic Officer, Mbarara Main Police Station
- Marketing Manager, ZOCTU (Online App Company)
- Administrator, Yellow Bird (Online App Company)
- Senior Community Development Officer, Kakoba Division
- Commercial Officer, Mbarara
- Principal Commercial Officer, Mbarara
- Regional Marketing Manager, Boda-Boda Sales Company
- Credit Officer, EBBO SACCO



APPENDIX B: KEY STAKEHOLDER INTERVIEW QUESTIONS

Project Title: Accelerating Covid-19 related 'best practice' in the urban motorcycle taxi sector in sub-Saharan Africa

Introduction: This survey/interview is funded by UK Aid via the High Volume Transport Programme in order to better understand the impact of COVID-19 on the transport sector, and specifically the motorcycle taxi sector, in 6 African countries. Participation in the survey/interview is voluntary and there is no financial compensation available, but the researchers do hope that your responses will help to inform policy makers and practitioners to develop good and evidence-based interventions. Your answers will be anonymised, so we will not link your name to your answers and aggregated with other responses. However, we do ask you to provide your name and mobile number, in case we want to contact you again for further questions and/or to share with you the findings of our study.

Signature of interviewee

Interview number (to be linked to name and phone-number of interviewee, kept on a separate piece of paper)

Date:

Location:

Name of data collector:



COVID-Q1 What have been the impacts/effects of COVID-19 on urban transport in general and the motorcycle taxi (MCT) sector specifically?

COVID-Q2 If transport-related restrictions or a lockdown were introduced, what were these specifics of these, to what extent have motorcycle taxi unions and/or riders consulted in this and to what extent have MCT riders been in compliance with these?

COVID-Q3 Are there any social or technological innovations or adaptions MCT riders can take or have been taken to reduce exposure and limit the spread of COVID?

COVID-Q4 Have experiences with and responses to previous outbreaks/pandemics been used when addressing the current COVID outbreak (for Sierra Leone and Liberia, think Ebola, for other countries, think for instance tuberculosis, feared to be spread by using shared helmets)?

COVID-Q5 If motorcycle taxi transport, from all the modes of public transport (shared-car taxi, mini and midibus, etc.) poses the lowest risk of COVID transmission, do you think that motorcycle taxi transport should be promoted?



APPENDIX C: MOTORCYCLE/ TRICYCLE OPERATOR QUESTIONS

Project Title: Accelerating Covid-19 related 'best practice' in the urban motorcycle taxi sector in sub-Saharan Africa

Introduction: This survey/interview is funded by UK Aid via the High Volume Transport Programme in order to better understand the impact of COVID-19 on the transport sector, and specifically the motorcycle taxi sector, in 6 African countries. Participation in the survey/interview is voluntary and there is no financial compensation available, but the researchers do hope that your responses will help to inform policy makers and practitioners to develop good and evidence-based interventions. Your answers will be anonymised, so we will not link your name to your answers and aggregated with other responses. However, we do ask you to provide your name and mobile number, in case we want to contact you again for further questions and/or to share with you the findings of our study.

Signature of interviewee

Interview number (to be linked to name and phone-number of interviewee, kept on a separate piece of paper)
Date:
Location:
Name of data collector:
Member of motorcycle taxi union: YES/NO
Motorcycle taxi operator or motor-tricycle taxi operator:



COVID-Q1a The impact of COVID-19 on my job as a motorcycle taxi rider is/was:

- 1. Very large and mainly negative
- 2. Very large but mainly positive
- 3. Not very large, but negative
- 4. Not very large, but positive
- 5. No real impact, either positive or negative
- 6. Other and/or explain your answer above

COVID-Q1b During the COVID-19 the number of MCT journeys I made/make per week:

- 1. Increased a lot
- 2. Increased a little
- 3. Remained more or less the same
- 4. Decreased a bit
- 5. Decreased a lot
- 6. No journeys were made at all
- 7. Other and/or explain your answer above

	Pre-Covid normal day	Pre-Covid busy day	During Covid normal day	During Covid busy day	During Covid- lockdown normal day	During Covid- lockdown busy day
Number of journeys per day*						
Duration of total number of trips in time (hours per day)						
Duration of total number of trips in distance (kilometres per day)						

^{*}For the interviewer: while exact number may be difficult to recall, key is to find out relative changes between the various column categories.

COVID-Q1c Please explain the reasons for the changes in the boxes in the above table.

COVID-Q2a What restrictions on MCT riding were introduced during the lock-down? (please tick all that apply)

1.	MCTs were not allowed to operate during the lockdown	
2.	MCTs were only allowed to operate along certain routes/in certain areas	
3.	MCTs were only operated to operate during certain times of day or night	
4.	MCTs were limited to operate with no more than 1 passenger	
5.	MCTs were only allowed to operate if following certain health measures, such as	

^{**} For the interviewer: while the exact length in time or kms may be difficult to recall, key is to find out relative changes between the various column categories.



6.	. No restrictions were imposed on the operation of MCTs							
7.	Other and/or explain your answer above							
COVID	-Q2b Were the a	bove restriction	S					
1.	Overall, clearly	communicated l	by the governm	ent and health d	epartment/min	istry		
2.	Generally, clearly communicated by the government and health department/ministry, but there has been some confusion at times							
3.	Not clearly communicated by the government and health department/ministry, with lots of confusion over what is allowed and what is not allowed.							
4.	Other and/or ex	xplain your answ	ver above		•••••			
COVID	-Q2c Do you trus	t the following i	nstitutions rega	rding COVID rest	rictions and me	asures taken?		
		Always	Most of the times	Sometimes	Never	Do not know		
The go	overnment							
The he	ealth tment/ministry							
The po	olice/army							
Motor	cycle taxi unions							
COVID	-Q2d Have moto	rcycle taxi union	s and operators	been consulted	or involved in d	lesigning these rules?		
1.	Yes, I have been	n involved in it n	nyself					
2.	I have not been	involved in it bu	ut I know my M	CT union has bee	n consulted or i	involved in it.		
3.	No, we, riders a	and the unions, h	nave not been c	onsulted or invo	ved in formulat	ing the rules		
4.	Other and/or e	xplain your answ	ver above					
COVID	-Q2e Who enfor	ced the above re	estrictions? (tick	all that apply)				
1.	Traffic Police							
2.	Army							
3.	MCT unions (th	rough MCT ward	dens, if in place)					
4.	Peer pressure f	rom fellow MCT	operators					
5.	Self-compliance	9						
6.	Other and/or e	xplain your answ	ver above					
COVID	- Q2f Compared t	o normal times,	have those who	enforced the al	oove restrictions	s been?		
1.	Much more for	ceful (higher fine	es, confiscation	of motorcycle, e	tc.)			
2.	As strict as in n	ormal circumsta	nces					
3.	More lenient a	nd understandin	g (not giving fin	es for instance)				
4.	Other and/or e	xplain your answ	ver above					
COVID	-Q2g To what ex	tent were the ab	ove restrictions	followed by MC	T operators?			
1.	All MCT riders f	followed the rule	es all of time					

2. Most MCT riders followed the rules most of the time

3. Some riders followed the rules but many did not

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	4.	Most MCT riders did not follow the rules most of the time		
	5.	All MCT riders did not follow the rules at any time		
	6.	Please provide examples of how rules were broken by MCT riders		
CO	/ID-	Q2h Do you think that COVID is?		
	1.	A real disease and the measures taken are necessary		
	2.	A real disease but its dangers are exaggerated		
	3.	Not a real disease		
	4.	Other and/or explain your answer above		
		Q3a What social measures or innovations have you and other MCT riders taken t it the spread of COVID (tick all that apply)	o reduce	e exposure
	1.	Only take one passenger at a time		
	2.	Try to face my passenger as little as possible		
	3.	Wash hands or use hand-sanitizer between journeys		
	4.	Only pick up passengers who are clearly socially distancing themselves		
	5.	Only pick-up passengers who wear a facemask		
	6.	Only drive people around who I know		
	7.	Take drugs (pills, vitamin supplements, herbals, traditional medicine, etc.)		
	8.	Other and/or explain your answer above:		
		Q3b What technological measures or innovations have you and other MCT riders re and limit the spread of COVID (tick all that apply)	taken to	o reduce
	1.	Wear a facemask		
	2.	Provide a disposal mask or hand-sanitizer for my passengers		
	3.	Wash hands or use hand-sanitizer between journeys		
	4.	Clean my motorcycle regularly with disinfections where passengers sit or hold or	n to.	
	5.	Only pick up passengers if booked via a mobile phone call		
	6.	Made a design adjustment for my motorcycle taxi		
	7.	Other and/or explain your answer above:		
CO	/ID-	Q4a Previous outbreaks of diseases/pandemics have affected my motorcycle tax	i job	
	1.	Yes, namely (name outbreak/disease)		
	2.	No, not really		
CO	/ID-	Q4b If answered yes to the above question, in what way have previous outbreak	s prepar	ed you:
		 Q5a If you have gained new regular customers what are the reasons quoted for ycle taxis (tick all that apply): 	them sv	vitching to
	1.	Another mode of transport not available on my route		
	2.	Frequency of other modes is reduced		
	3.	Irregular service from other transport modes		
	4.	Fear of Covid19 infection from using other modes of transport		
	5.	Easier to socially distance from other passengers on motorcycle taxis		



6.	Other passengers not wearing masks and/or following government guidance	
7.	The journey now takes much longer on other transport modes	
1.	Other reasons (please specify)	

Swansea UniversitySingleton Park Swansea, SA2 8PP Wales, UK

Tel: (+44)(0)1792 295183

Email: k.peters@swansea.ac.uk Web: Swansea.ac.uk