

# MOBILITY SOLUTIONS TO SOUTHERN AFRICAN CHALLENGES: THE CASE OF MOTORCYCLE TAXIS

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## ABSTRACT

Motorcycle taxis (MTs) in Southern Africa have grown into an important informal public transport mode, solving mobility challenges amidst inadequate transport infrastructure and a lack of adequate public transport. From serving as a first and last mile solution in rural and peri-urban areas, to competing with public transport modes like vehicle taxis and buses for short trips, the mode attracts divided opinions on its role in public transport integration. The mode is hugely characterised by a lack of regulation, low entry barriers and safety issues. This essay deliberates on concerted efforts to addressing obstacles surrounding the MT industry. Recommendations such as restructuring motorcycle operations from individual to company orientation, provision of training that equips MT users with safe road habits, regulating MT services licencing, and strict enforcement of laws, would make the mode safer and efficient. Fixing the region's existing transportation challenges about MTs is the first step towards addressing and improving the image of the service and the holistic mobility challenges in the Southern African community.

**Keywords:** Informal transport, Motorcycle taxi, Public transport, Southern Africa.

## 1. BACKGROUND

Social and economic exclusion of marginalised communities such as the poor, people living with disabilities and those in rural areas, is still evident in Southern Africa, post-independence (Bordia et al., 2020). In South Africa, for example, despite improvements in access to social services, approximately seventy percent of people experience high levels of inequality and persistent exclusion (Plagerson & Mthembu, 2019). The prima facie challenges of inadequate sound, cost-effective infrastructure, and poorly integrated transport have resulted in excessive costs of mobility. Attempts to bridge such mobility challenges which broaden social and economic access and alleviate poverty, have seen the rapid growth of informal modes of transportation such as the minibus and motorcycle taxis (Olvera et al., 2012). According to Bishop and Courtright (2022), there were 27 million registered motorcycles in Africa, and 80 percent of these were MTs. In a separate study by Ambunda (2010), the share of cities with motorcycle taxis (MTs) as of 2016 was 25 percent in Southern Africa. However, existing literature and regional statistics constantly show that MTs largely remain unquantified in most countries in Southern Africa. Countries like Rwanda in East Africa, have recognized MTs guided by regulations and operational requirements such as licensing, use of helmets and wearing of identifiable vests (Martin et al., 2023). Considering Southern Africa as a case study, this essay provides the state of MT transport and practical solutions to addressing the mode challenges.

## 2. RISE OF MOTORCYCLE TAXIS IN SOUTHERN AFRICA

With minimal regulation of vehicle routes, MTs have an advantage of responding to demand for mobility from a large population, satisfying a travel need not be met by walking

and considered too short to be served by formal public transport means. This demand could be because of ordinary daily and seasonal changes, or long-term changes brought by competing forms of transport, and/or changes in mobility patterns (Benavides et al., 2022). Several factors have caused the surge in MTs in the Southern African countries.

Firstly, most areas are inaccessible by formal public transport due to factors such as poor land-use planning and inadequate infrastructure. This is followed by the inadequate coverage of formal public transport modes like bus rapid transit (BRT) and commuter rail services. Just like other forms of paratransit, especially the minibus taxis (Behrens, 2016), the MT has emerged as another means of informal transport, offering varying degrees of service to rural and urban settings. For example, they navigate terrains that have inaccessible or non-existent traditional roads (Daramola, 2018), act as feeders to the primary transport system, thereby reducing congestion on major roads (Latonero et al., 2017). They also offer personalized door pick up and door drop off services, and operate at times that few, if any, conventional providers are active (Owino et al., 2024). Unlike formal public transport services that are offered in fixed routes, MTs are convenient in successfully enfranchising mobility for rural and urban residents.

Secondly, due to their small size, MTs can circumvent through urban traffic congestion and are relatively fast (Ehebrecht et al., 2018). With concerns rooted over road safety and legality (Olubomehin, 2012), nevertheless, MTs are still patronised by the populace for their advantages over buses and taxis, hence, filling the integration gap between formal modes.

Amidst high unemployment levels, the sector is a source of employment for young people. Whilst official statistics are not available in the region, MTs have provided employment to more than 3.6 million youths in Tanzania, Kenya and Uganda (Mbegu & Mjema, 2019).

Some economic activities from small scale businesses also rely on MTs for the movement of goods and services. However, as reported by MobiliseYourCity (2024), the effect of the informal operation of MTs renders them culprit to law enforcement, hindering market operations when they are detained and/or taken off the road. It is also seen that enforcement of MTs is sometimes difficult due to either law enforcement officers being bribed, leaving them unable to police the industry or, the involvement of politicians who stop law enforcement for political mileage (Kumar, 2011).

### **3. FUTURE CONTEXT OF MOTORCYCLE TAXIS IN SOUTHERN AFRICA**

There are several issues that remain unaddressed pertaining Southern Africa's mobility future. Transport planners and officials have hopes that modern transport systems such as the Bus Rapid Transport and Metro Rail system will serve as urban transport means. Whilst countries like South Africa have recorded success stories in implementing modern public transport systems, the same cannot be said for countries such as Malawi (Benavides et al., 2022). Judging by past developments, public transport inadequacy issues continue to be persistent, and the future does not seem hopeful. Furthermore, it is observed that, available literature in most Southern African countries does not clearly state public transportation integration plans on local streets, which serve as first and last mile solutions (Venter, 2020).

Efforts have been made to remove MTs from city roads in countries like Ghana in West Africa (Owino et al., 2024), due to the dangers they pose to road safety, security and general city aesthetics. According to Konlan et al. (2020), globally, motorcycle accidents, account for more than 380,000 annual deaths, with 28 percent of fatalities occurring in

2016, primarily, in Africa. Motorcycle injuries, however, vary between 22.8 percent in China to as high as 62 percent in Vietnam. Nonetheless, realising that motorcycle taxis serve varying purposes including personal mobility (Kumar, 2011), most existing literature does not provide actual segregated accident data showing the prevalence of accidents due to motorcycle taxis only.

Therefore, in as much as banning MTs as a solution may be desirable, the reality is that it does not solve current mobility issues. It can further be argued that the resistance to their regulation is only a short-term solution. Consequently, due to the time and financial commitment needed, it is important to not just base the decisions on copied or adopted transport approaches from other nations. The solution should be supported by the nature of financial and infrastructure resources in Southern Africa countries.

Present reality is that, most public transport needs in cities are serviced by minibus and motorcycles taxis (Gasnolar, 2022). Owing to factors such as flexibility, accessibility and affordability of the mode, the existence and growing importance of MTs in the Southern Africa can be justified. As such, their role needs to be scrutinized, and once known, policy measures on regulation, integration and safety that are context specific should be developed to make it safer and reliable. For example, policy measures should consider separately factors such as integration of public transport, congestion and safety as vital issues for the urban areas on one hand. On the other hand, issues of accessibility, livelihood support and affordability for the rural and peri-urban areas should be considered as of utmost importance. Other factors such as infrastructure quality as well as affordability gaps should also form part of decision making. Hence, as countries work towards sustainable mobility, present practical solutions are desirable. Therefore, whilst promoting other modes of transport to solve existing mobility challenges, current improved MT operations offer a realistic solution.

## **4. RECOMMENDATIONS FOR SOUTHERN AFRICA**

### **4.1 Innovating MT Business**

The growth of MT business faces more pertinent challenges that emanate from its operational characteristics such as deciding fares over a specific distance. In most cases, fares are dependent on time, place and are decided by the MT operators and imposed on the users (Tuan and Mateo, 2013).

Studies by Wadud (2020) and Martin et al. (2023) have shown that digital application-oriented services allow for diversification into other services such as package deliveries and mobile payments. For example, in South Africa, motorcycles are common in food deliveries such as Uber Eats, serving as a major player in the fast-paced food delivery and e-commerce industry. In Uganda, online platforms such as the SafeBoda allow customers to order a MT through their smartphones. The platform has information of drivers, automatically calculates the cost of the trip, and allows flexibility in terms of payment i.e. cash, card payment or via a virtual wallet help with the ride hailing company (Saddier, 2018). A study by Muni et al. (2019) in Uganda, showed that SafeBoda drivers were 39 percent less likely to be involved in a road traffic crash than regular drivers. These findings show that drivers in the digital set up are more likely to engage in safe riding behaviours and have fewer road traffic crashes than regular drivers. Hence, the introduction and adoption of company-based services offers a new MT service opportunity.

## 4.2 Regulating MT Services

Most motorcycle drivers do not have the skills needed to circumvent busy urban streets. This is due to the ease with which drivers start operating on the road. “Is it just by buying a motorcycle?” or perhaps, “evading the acquiring of licenses?” Regulations must be put in place on motorcycle licencing, user safety, and emissions as one way. The business should also be restructured from individual operators to registered company-oriented operations. This would bring sanity to the operations through improved safety, and reliability. Eventually, it would positively change how perspective of how stakeholders view the business. It is also recommended that fares must be regulated so that customers are not exploited. Furthermore, regulation bells must be rung high to the politicians that use “political patronage” to frustrate law enforcers’ efforts in implementing the motorcycle safety laws.

## 4.3 Strict Law Enforcement

MT drivers’ usually travel at high speeds to make sure that they make more trips, exposing users to the risk of accidents. Furthermore, most drivers are young men (driving at the age of 14 years is not uncommon), who enjoy the MT driving thrills and take undue risks (Porter, 2014). Governments should therefore provide strict law enforcement exercises targeting high risk behaviours of drivers. Law enforcers must make sure that motorcycles are registered, drivers are licensed and follow traffic regulation. Strict caution and penalties should also be imposed on law enforcers that engage in corruption practices involving drivers that try to evade the law (Barber, 2019). Failure to adhere to the safety regulations should attract revocation of licenses or stiff penalties.

## 4.4 Continuous Road Safety Awareness

Motorcycle accidents are usually caused by risky behaviour of drivers such as reckless overtaking, over-speeding, overloading, drinking and driving, failure to wear protective gear (e.g. helmet and reflective jacket), driving towards oncoming traffic, distracted driving (e.g. mobile phone use) as well as, neglecting road signs and traffic signals (Muni et al., 2019). These habits, according to the World Health Organisation (2018), pose danger and contribute substantially to the high rate of road accidents.

Providing training and awareness that equips MT users on the safe road operation of a motorcycle, the expectations and responsibilities of the riders, as well as the legal requirements and their importance is necessary. Furthermore, they should be given basic working knowledge on first aid is also important. Unfortunately, programmes of this nature are not implemented continuously. Local governments, traffic law enforcement agencies and MT operators and associations need to work together towards the implementation of more free or subsidized safety programs in Southern African.

## **5. CONCLUSION**

Moving towards a more sustainable transport system that improves society’s mobility, access and quality of life is critical, given the state of public transport in Southern Africa. Public transport integration and establishment of modes of transport that cater for people living in both rural and urban areas is crucial. This improves access to education, health and other services, which is vital as it bridges social and economic gaps. Despite facing resistance and divided opinions about safety and environmental concerns, the use of the MT mode continues to grow exponentially in the region. The service offers a practical and flexible solution to mobility challenges and generates substantial economic opportunities.

The challenges the mode encounters highlight the need for balanced policy approaches that recognizes both the requisite contributions of motorcycle taxis and its associated risks in the Southern African communities. It is thus recommended that, efforts must be made towards improving the service to make it safe, efficient and affordable whilst it still serves as a possible first and last mile solution. To make this possible, the study recommended innovative approaches to MT business operations, continuous road safety awareness, strict regulation and law enforcement.

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