

*Full Length Research Paper*

# **Assessing motorcycle taxis as public transport option in the urban life of African cities: The case of Accra, Ghana**

**Seth Appiah-Opoku, Kwaku Karikari Manu\* and Lord Ebow Sampson**

Department of Geography, The University of Alabama, Tuscaloosa-Alabama, United States.

Received 15 August, 2024; Accepted 18 December, 2024

**Increasingly, motorcycle taxis are offering convenient and affordable means for navigating congested and hardly accessible urban road systems in Africa. They play a vital role in the transportation systems in some African cities. Popularly referred to as “Okada” in Ghana and Nigeria, motorcycle taxis are heavily patronized because of their obvious strengths as compared to other transportation systems. Using mixed-methods approach, this paper evaluates the socioeconomic impact of motorcycle taxi operations and identifies key challenges and opportunities within the urban context of Accra, Ghana. The study reveals that motorcycle taxi operation is a male-dominated sector; primarily employing young individuals aged 20 to 40. It serves as a significant source of employment, offering decent income and stability, especially for those otherwise facing unemployment challenges. The challenges include high accident rate, exposure to the vagaries of the tropical weather, susceptibility to police harassment, and negative public perceptions. The opportunities include high demand as a flexible urban transport option and a good source of investment. Policy implications include the need to formalize its operations, introduce training programs for riders covering safety and driving regulations, and provide infrastructural improvements to streamline motorcycle use in cities.**

**Key words:** Motorcycle taxis, urban transportation, socioeconomic impact, unemployment, convenience.

## **INTRODUCTION**

Increasingly, transportation is seen as the livewire of the growth and development of cities. Therefore, without effective and efficient access, most economic activities will slow down. According to Cullingworth and Caves (2003), transportation is the lifeline of any economic system, facilitating and sometimes limiting the development and spread of human activities. In this sense, the history of both urban growth and economic development reflects the history of transportation

availability. Road transport forms an integral part of economic activities and social engagements. The predominant modes in road transport in most African cities are the use of vehicles and trucks. However, due to rapid urbanization and poor planning, coupled with its effects such as traffic congestion, the use of motorcycles has increasingly become popular in some African cities primarily for intracity transport.

The increasing trend in the use of motorcycles as an

\*Corresponding author. E-mail: [kmanu@crimson.ua.edu](mailto:kmanu@crimson.ua.edu).

essential alternative means of public transportation in Africa has merits and challenges. Starkey and Njenga (2010) point out that motorcycle taxis are comparatively flexible and affordable. For instance, it is estimated that motorcycles constitute 30% of all urban transport in Benin and 40% in Cameroon (Kumar, 2011). In as much as motorcycle taxis provide an efficient and effective means of transport in solving mobility challenges, its emergence has safety challenges.

Safety has been the primary concern with the use of motorcycle as a public transport. Numerous studies have been conducted in relation to motorcycle accidents, traffic management issues and robbery attacks on riders. For instance, according to Jack et al. (2021), several fatal motor accidents related to motorcycle taxis (*okada*) account for 36% of road crashes in Nigeria. In the first quarter of 2021, it is on record that 771 individuals in Ghana died from motorbike accidents; and in 2020, 13% of all road accidents in Ghana were associated with motorcycle accidents (Hagan et al. 2021). It is therefore not surprising that motorcycle taxis have been officially outlawed in Nigeria and Ghana though the business still thrives (Darido et al., 2010).

It is against this backdrop that this study assessed the role of motorcycle taxis in the urban life of Accra, Ghana. Specifically, the study aims to (1) evaluate the socioeconomic impact of motorcycle taxi operations on operators, (2) identify the key challenges and opportunities within the sector, and (3) explore the potential policy implications for formalizing and regulating motorcycle taxi operations in Accra. The paper is structured into six parts, including this introduction. The following section provides a background, reviewing existing works and issues related to this phenomenon. Next, the research methods section which outlines the approach used to conduct the study. The fourth section presents the results and discussion, followed by the fifth section, which explores the policy implications of the research. The last section concludes the paper.

Motorcycle taxi business refers to the practice of commercial transport using motorcycles. In this system, a private motorcycle rider transports a passenger on the pillion seat, and payment is made by the passenger upon reaching their destination. This mode of transport is gaining popularity in congested urban areas in Africa where motorcycles can effectively navigate through heavy traffic more efficiently. Hence it is a favored transport option in regions lacking sufficient public transportation due to its affordability as a mechanized transportation alternative. In most African countries, the prevalent narrative revolves around underdeveloped infrastructure, particularly in terms of road networks, where only a handful of main routes are paved or motorable. Consequently, motorcycle transport emerges as a practical solution to this transportation challenge (Nelson, 2016). Starkey and Njenga (2010) attribute the rising popularity of motorcycle transport across Africa to

their transport flexibility and affordability. The International Road Federation (IRF, 2011) emphasizes that motorcycles are gaining traction in developing nations due to their capability to navigate challenging terrains like muddy or landslide-affected areas. Figure 1 shows a typical motorcycle taxi station in Accra, illustrating the operational hub for riders and passengers.

In Africa, the predominance of motorcycle transport is reflected in the various nomenclatures assigned to their operation in several countries. They include *Okada* in Ghana and Nigeria, *Boda* in Uganda, and Kenya, *kabou-kabou* in Niger, *Zemidjan* in Cameroon, Togo and Benin, and *Clando* in Chad (Nelson, 2016). In Benin, *Zemidjan* accounts for approximately 80% of urban transport. In regions like Douala, Cameroon, up to 80% of motorized trips involve motorcycles, underscoring their significance (Kumar, 2011). They play a crucial role in both rural and urban areas, bridging the transport gap by ferrying people and goods between remote villages and urban centers (IRF, 2011). Offering faster, more direct journeys compared to mini-buses, motorcycle taxis; passengers reach their destinations without the frequent stops associated with public buses (Chang et al., 2012).

From economic perspective, the motorcycle transport sector in Africa is attracting private investment in countries like Cameroon, Ghana, Rwanda, and Tanzania due to its profitability (Starkey, 2008). This growth not only addresses transportation needs but also provides lucrative employment opportunities, especially for young men. For example, in Nigeria, the earnings from this sector often surpass minimum wage levels, highlighting its economic potential (Ogunrinola, 2011; Tuffour and Appiagyei, 2014). In Lagos alone, the presence of 200,000 commercial motorcycles translates into direct employment for over half a million individuals (Kumar, 2011).

Compliance with fiscal and safety guidelines remains subpar. The utilization of protective helmets, especially by passengers, is notably lacking, heightening injury risks during accidents. In many rural settings, motorcycles operate without proper insurance or the mandated vehicle tax. A sizable portion of motorcycle transport drivers lacks the requisite licenses and has minimal training in safe driving and road regulations (WHO, 2009). To address these concerns, Transaid and Barber (n. d.), backed by Africa Community Access Partnership (AfCAP), has crafted a training program for motorcycle drivers in Tanzania and beyond. Overloading on motorcycle transport is frequent, with instances of carrying multiple passengers, goods, and occasionally animals. Such overloading can compromise the driver's control, especially in challenging road conditions or when navigating through traffic.

Road safety and adherence to regulations pose significant challenges for motorcycle transport. Whether in urban settings or rural areas, motorcycle-related accidents leading to road traffic injuries (RTI) are



**Figure 1.** A typical motorcycle taxi station in Accra, illustrating the operational hub for riders and passengers.  
Source: Authors.

prevalent.

While global statistics are alarming, specific data categorized by road type or vehicle operator are scarce (Bishop et al., 2015). For instance, under-reporting of rural road accidents might skew national statistics. Research in Tanzania, supported by AfCAP, revealed a high incidence of injuries among rural motorcycle drivers over a year (Bishop et al., 2015).

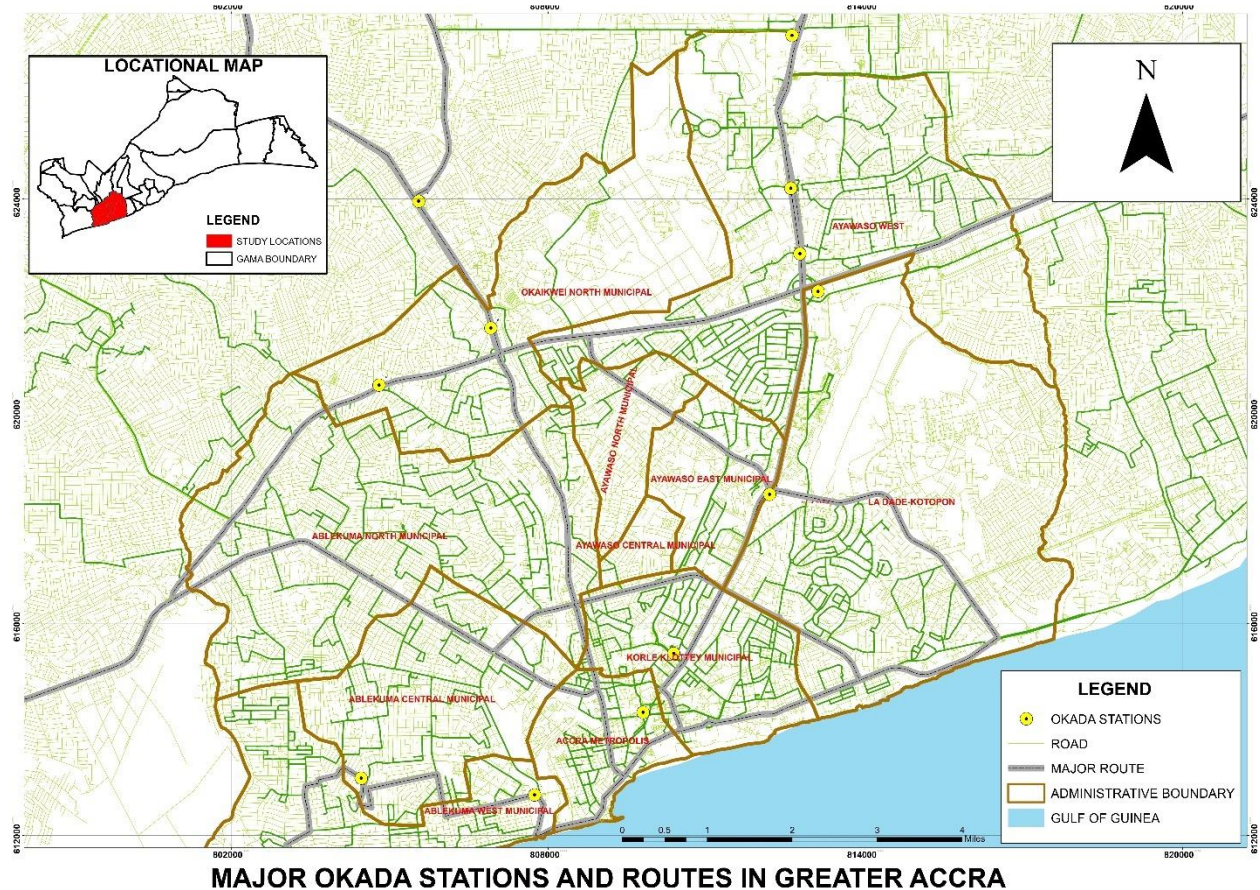
The surge in traffic fatalities in developing nations over recent decades is concerning (WHO, 2009). While debates persist about exact injury figures, it is evident that injuries far outnumber fatalities, causing substantial societal and economic repercussions. The proliferation of motorized vehicles, coupled with inadequate infrastructure, unsafe vehicles, and poor road management, exacerbates the risks. The vulnerability of motorcyclists, bicyclists, and pedestrians is particularly pronounced, with many accidents occurring in low to middle-income countries. By 2030, road traffic injuries are projected to rank fifth in global mortality, up from ninth in 2004 (Transaid and Barber (n. d.)). The economic toll of road traffic accidents in developing nations is staggering, exceeding developmental aid figures. For instance, Ghana's National Road Safety Commission estimated

that road accidents consumed 1.6% of the GDP in 2007, amounting to US\$ 165 million (Starkey, 2016). Despite the risks associated with motorcycles, they remain a prevalent mode of transport in many rural and urban areas, with helmet usage in places like Ghana remaining disappointingly low. It is against this background that this paper assesses the nature of motorcycle taxis operations, including the prospects and challenges, in the urban life of African cities with a case study from Accra, Ghana.

## METHODOLOGY

Using a mixed method approach, the study was conducted in the Greater Accra region of Ghana. This method included content analysis of secondary data, surveys, and field observations. Survey questionnaires focused on socioeconomic impact of motorcycle transport on the livelihoods of operators as well as opportunities and challenges faced. Figure 2 shows the map showing major motorcycle stations and routes.

Data on the total number of Motorcycle Transport Operators was unavailable due to the lack of a sampling frame. Consequently, the snowball sampling method was employed to interview as many operators as possible until saturation was reached. A total of 56 individual operators were interviewed. The sample group consisted



**Figure 2.** Map showing major motorcycle stations and routes.  
Source: Authors'.

solely of motorcycle operators/riders, and this sampling method was preferred due to the nature of their work schedules. Data from the questionnaires were analyzed using the Statistical Package for the Social Sciences (SPSS), while secondary data were analyzed thematically to facilitate meaningful inferences.

## RESULTS AND DISCUSSION

This section presents the analysis and discussion of the data gathered from the respondents in the field.

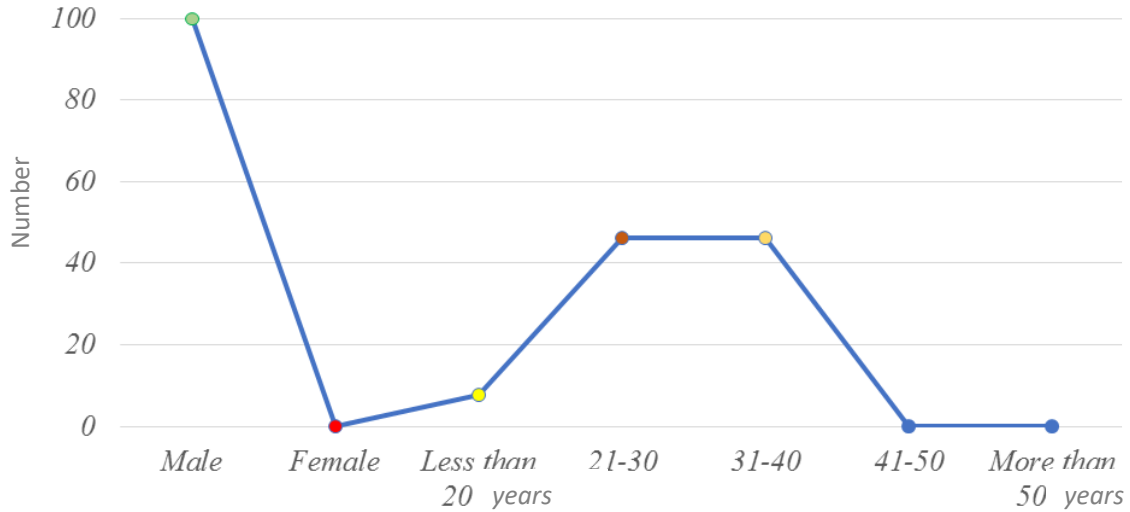
### Socio-economic structure of motorcycle taxi operators in Accra, Ghana

The study showed that the motorcycle taxi business is a male dominated occupation (Figure 3). Women are underrepresented in motorcycle taxi operations, especially in metropolitan areas like Accra, due to social conventions, safety concerns, and economic constraints. Traditional gender roles and societal expectations restrict women from choosing male-dominated careers like motorcycle taxis (Olutayo and Adeyemo, 2024).

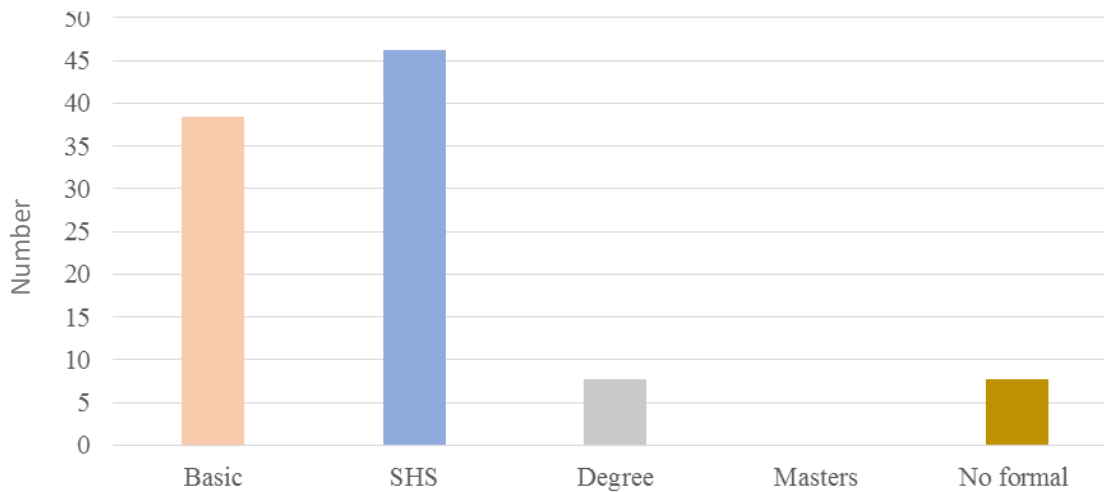
Many cultures, notably in West Africa, believe that men are better suited for physical labor and public exposure (Peters, 2004). Safety concerns also hinder women from entering the field (Peters, 2004). Women are more vulnerable to public harassment and assault. Economic restrictions like limited capital for motorbike purchases and licenses exacerbate these issues (Hansen, 2016).

Also, the result of the study suggests that this occupation is dominated by middle aged people; only 7.6% of the operators surveyed were below 20 years old. This indicates that motorcycle transport serves as a significant form of employment for male individual within the economically active age group. Approximately, 60% of the motorcycle taxi operators between the ages of 31 to 40 are married. Only 7% of the operators were either divorced or separated, and 20% of the respondents have between 1 and 3 kids.

The educational levels of the respondents indicate that 46.15% have attained Senior High School (SHS) education and only 38.4% completed just primary and junior high schools. It is noteworthy that 7.6% of the respondents have a university degree, and the remainder had no formal education. A respondent with a university



**Figure 3.** Gender and age group of motorcycle transport operators. Source: Field survey.



**Figure 4.** Education levels of motorcycle transport operators. Source: Field survey.

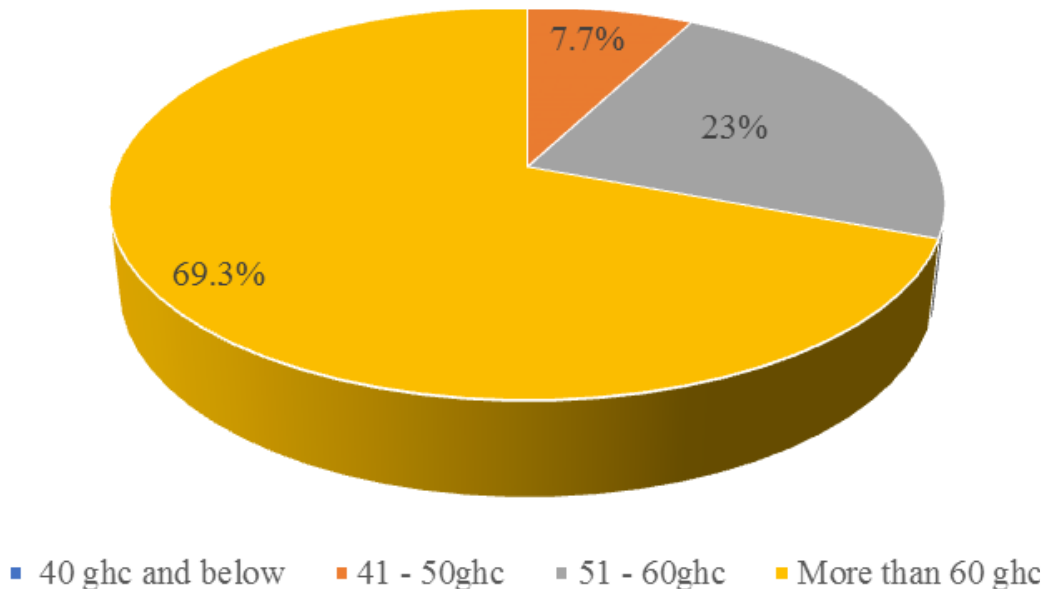
degree revealed: “I searched for a job related to my field of study for over a year but to no avail, so I finally settled on the motorcycle taxi operation job.” Figure 4 shows the education levels of motorcycle transport operators.

**Motorcycle taxi operation as a livelihood option**

The study identified several advantages accrued by motorcycle taxi operation as a livelihood option. These advantages are not only pivotal in the context of employment and income but also play a significant role in enhancing mobility, especially in urban settings with

limited infrastructure. Figure 5 shows the daily income of motorcycle taxi operators.

One of the primary advantages mentioned by respondents is that motorcycle transport serves as their major source of employment. Currently, unemployment is one of the major problems plaguing Ghana. Motorcycle taxi operation, commonly known as “Okada,” has helped address this issue by providing job opportunities for both the young and old individuals. For instance, one of the respondents, disclosed “This Okada business has saved my life. After joining the business some 3 years ago, I have made a substantial amount of money, and it has provided me with employment stability.”



**Figure 5.** Daily income of motorcycle transport operators in Ghana Cedis (14.8ghc = 1usd).  
Source: Field survey.

Another respondent stated, "This business has provided me with good employment and steady income to support my family." These testimonies highlight the crucial role that motorcycle taxi operation plays in providing employment opportunities in Ghana.

Another advantage of motorcycle transport operation is that it serves as a steady source of decent income. Respondents noted that this form of employment generates significant earnings. According to Nelson (2016), motorcycle transport has been instrumental in lifting people out of poverty in many developing countries. Our findings indicate that the majority (74%) of respondents' monthly expenditures are financed through motorcycle transport operation.

One respondent stated, "You see us sitting here; we make a lot of money, even more than some government workers." Another respondent added, "Through this business, I have been able to take good care of myself and have saved enough for my first plot of land."

A significant majority of the operators (70%) expressed satisfaction with their daily income from the business (Figure 5), which is substantially higher than the daily minimum wage of 18.15 Ghana cedis. This indicates that motorcycle transport provides a stable employment option with decent income, enabling individuals to lead better lives and avoid illicit activities. The third significant advantage mentioned by most respondents is the convenience of having their own motorcycles, which serve as a means of personal transport. In cities like Accra, where transport costs can be high, motorcycle taxi operators benefit from not needing to rely on other forms of transportation. This advantage is especially important in facilitating their movement around the city.

Furthermore, in urban settings where infrastructure is limited, motorcycle transport emerges as an indispensable asset, offering substantial social and economic advantages. On smaller urban routes connecting towns to villages or feeder roads, the accessibility to bus and minibus services diminishes. Research in regions of Ghana, Tanzania, and Cameroon illustrates this disparity (Dinye, 2013; Starkey, 2016; Kemtsop and Starkey, 2013). In the absence of these services, motorcycle taxis fill the void, becoming the primary motorized mode of public transport and serving as lifelines for various demographic groups, including pregnant women, the infirm, youths, and the middle class, especially when in a hurry to avoid traffic (Kemtsop and Starkey, 2013; Starkey et al., 2013; Dinye, 2013).

Additionally, given the rapid population growth and urbanization in some African countries, especially in Ghana, coupled with extensive vehicular traffic and inadequate road infrastructure, motorcycles play a pivotal role in both intra-city and rural transit (Levy and Wong, 2010). Research indicates that a significant portion of passenger and small freight movement within towns and between villages relies on motorcycle transport (Kemtsop and Starkey, 2013; Njenga et al., 2013; Odero and Starkey, 2012; Starkey, 2016). In Cameroon, for instance, motorcycle transport facilitated 82% of the 300,000 yearly passenger movements and was instrumental in transporting 74% of an estimated 33,000 tonnes of goods to and from markets (Kemtsop and Starkey, 2013).

Finally, motorcycle taxi offers three distinct attributes that amplify its impact. Firstly, accessibility through mobile phone calls ensures prompt, direct services. Secondly, the ability to navigate footpaths,



**Figure 6.** A motorcycle taxi rider with a passenger, showcasing the typical day-to-day operation and interaction in Accra.  
Source: Authors.'

tracks, and small bridges extends transport services to even the remotest households. Thirdly, motorcycles are suitable for intra-city travel and commercial passenger transport due to their low fuel consumption (Declan, 2012). This transformative role challenges traditional perceptions of rural accessibility. With motorcycle transport, the effective reach of road transport services is significantly broadened, making it a viable alternative transportation solution in Accra.

### **Challenges of motorcycle taxi operation as a livelihood option**

Motorcycle taxi operation, while providing significant advantages, also comes with notable challenges. Most of the discussion in this section is based on the analysis of secondary data. These challenges range from safety concerns to legal and social issues.

#### ***Risk of accidents***

One of the significant disadvantages identified by individuals involved in motorcycle taxi operation is the risk of accidents. The respondents highlighted their dread of accidents, which is supported by statistical data. The Building and Road Research Institute (BRRI) reported that in 2019, the rate of motorcycle-related accidents was 3.9%. Furthermore, the National Road Safety

Authority of Ghana reported that in 2010, more than 50% of motorcycle transport operators were involved in accident situations, and 70 percent of the victims' sustained injuries, some of which were serious. A study by Agyemang, 2021 revealed that 67% of motorcycle transport operators in Kumasi had experienced a crash before. The severity of motorcycle taxi accidents in Ghana is predominantly high. The inadequate utilization of protective equipment, including helmets, by riders and passengers exacerbates the severity of injuries sustained during accidents (Barbour et al., 2024).

Research indicates a significant occurrence of head and limb injuries among motorcycle accident victims in Ghana, with mortality rates intensified by insufficient emergency response and restricted access to trauma care facilities in urban areas (Agyemang et al., 2021). Overloading, a prevalent practice involving the transportation of numerous passengers or substantial goods, exacerbates the likelihood and severity of injuries and fatalities in accidents (Barbour et al., 2024). Table 1 presents the proportion of road traffic accidents involving motorcycles compared to other vehicles in Ghana from 2020 to 2023. The data demonstrates a steady increase in both the overall number of road traffic accidents and the percentage involving motorcycles over the four-year period. This rising trend highlights the escalating safety concerns associated with motorbike usage in Ghana. According to Jack et al. (2021), road crashes involving motorcycle transport operators and other vehicles are attributed to several factors, including overspeeding,

**Table 1.** Proportion of road traffic accidents involving motorcycles compared to other vehicles in Ghana (2020–2023).

Year	Total Accidents	Motorcycle Accidents	Percentage of Motorcycle Accidents
2020	12.100	3.630	30
2021	13.200	4.224	32
2022	14.000	4.760	34
2023	14.800	5.180	35

Source: Ghana National Road Safety Authority (2023).

recklessness, and limited education of operators, high daily round trips, poor maintenance practices, and unsafe operating habits. These statistics corroborate the respondents' concerns, as motorcycle transport operations indeed carry a substantial risk of accidents.

#### ***Lack of helmet usage, and exposure to adverse weather conditions***

The utilization of protective helmets, especially by passengers, is notably lacking, heightening injury risks during accidents. To address these concerns, Transaid and Barber (n. d.), backed by the Africa Community Access Partnership (AfCAP), has crafted a training program for motorcycle drivers in Tanzania and beyond.

Another disadvantage of motorcycle transport operation is the exposure to adverse weather conditions. Due to the nature of motorcycles, operators are constantly exposed to weather elements such as heavy rainfall and extreme sunlight. The respondents stated that their most dreadful days are when it rains or is extremely sunny, as it makes the job extremely uncomfortable and risky. According to Konkor et al. (2019), motorcycle accidents are more predominant in rainy and foggy seasons, leading to numerous injuries and sometimes even death. A study by Ehebrecht et al. (2018) revealed that motorcycle transport operators perceived that accidents are higher during foggy and festive seasons. Adverse weather conditions pose a significant disadvantage to motorcycle operators, as it leaves them with unpredictable and risky working conditions.

#### ***Harassment by police***

Additionally, a critical challenge for motorcycle taxi operators in Ghana is harassment by police due to the illegal status of their occupation. The respondents complained about frequent stops, questioning, and requests for bribes by police officers. According to Hagan et al. (2021), motorcycle operation is illegally conducted in most cities due to the high risks associated with it, making operators prey to police harassment. Despite the importance of motorcycle transport in the urban life of

developing cities, it has not been legalized in most countries (Dostál and Adamec, 2011).

While urban centers tend to have stricter oversight, rural areas typically witness more lenient enforcement. In these less populated regions, law enforcement might overlook infractions, sometimes due to petty corruption (Starkey, 2016). Operators might offer small 'gratuities' to sidestep penalties, a practice that has become commonplace and almost ritualistic in some areas. Recognizing the challenges and keen to avert the disorder seen in certain West African cities, Ghana prohibited all commercial motorcycle transport operations in 2012. Despite these restrictions, the motorcycle transport business persists in cities like Accra, Techiman, and Kasoa.

#### ***Negative public perception of motorcycle transport operators***

One of the primary disadvantages is the negative public perception of motorcycle taxi operators. In many cities, operators are often associated with issues such as robbery and other social vices. Respondents mentioned that this perception makes it difficult for them to get patronage at certain times of the day. According to Evans et al. (2018), robberies and thefts were ranked as the second most common crimes associated with motorcycle taxi operation. It is possible that these perceptions could impact negatively on the economic gains in this business.

#### ***Conflict between motorcycle transport operators and other road users***

Motorcycle operators frequently encounter conflicts with other road users, including larger vehicles and pedestrians. The unique size and maneuverability of motorcycles can lead to misunderstandings and confrontations, escalating safety concerns and introducing disruptions to daily operations. These conflicts can also lead to legal issues and damage the professional reputation of operators. Managing these interpersonal challenges is essential for maintaining a smooth and reputable service.

### ***Extortion by law enforcement***

The lack of formal recognition and regulation for motorcycle transport in Ghana gives rise to several issues, including extortion by law enforcement. Operators frequently face harassment from police officers due to the informal status of their occupation. According to Hagan et al. (2021), this illegal status renders operators vulnerable to exploitation. Moreover, inadequate licensing and the lack of formal training among many operators exacerbate safety concerns. Ipingbemi and Adebayo (2016) note that rising registration costs and bureaucratic delays can result in non-roadworthy motorbikes, thereby increasing the risk of accidents.

### ***Licensing and regulation of motorcycle operators***

A valid driver's license and driving experience are crucial for road safety. However, many motorcycle operators lack proper licensing and may learn to drive informally, as indicated by Ipingbemi and Adebayo (2016).

McKnight and Peck (2003) emphasize that lax regulations and inadequate driver training contribute to the heightened risk of accidents. Additionally, the absence of designated parking areas for motorcycles leads to indiscriminate parking, creating hazards for both operators and other motorists (Aderamo, 2012). Despite these aforementioned challenges of the motorcycle taxis in Ghana, they still remain popular.

### **Comparative analysis of economic viability, efficiency, environmental impact, and safety of urban transportation in Accra**

To comprehend the popularity of motorbike taxis ("Okadas") in Accra, despite inherent risks, it is beneficial to juxtapose them with alternative urban transit modes such as buses, minibuses, and ride-sharing services across three critical dimensions: economic feasibility, efficiency, and safety.

#### ***Economic viability***

Motorcycle taxis are crucial in generating employment and income for several young men in metropolitan regions characterized by elevated unemployment rates. Studies indicate that motorcycle taxi operators can achieve daily earnings exceeding Ghana's minimum inexpensive operational expenses, including gasoline and maintenance, render motorcycle taxis a viable and appealing choice for income generation (Manu et al., 2022; Olutayo and Adeyemo, 2024). Conversely, public wage, providing economic stability for individuals lacking formal work options (Alimo et al., 2022). The very buses

and mini-buses provide greater passenger capacities, facilitating reduced per-person prices, thereby rendering them an economically feasible option for low-income commuters (Govender, 2016). The economic viability of bus and mini-bus operators may be precarious due to elevated maintenance costs, driver salaries, and fuel expenditures, which can affect profitability, particularly with variable passenger numbers (Mehndiratta and Rodriguez, 2017; De Beer and Venter 2021). In contrast to motorcycle taxis, public transport systems frequently depend on government subsidies for financial sustainability, underscoring a disparity in economic frameworks between the two transportation modes (De Beer and Venter 2021).

#### ***Efficiency***

In terms of efficiency, motorcycle taxis have a considerable benefit than other means of transportation in Ghana, as they can maneuver through tight lanes and congested streets to circumvent traffic, rendering them a favored choice for commuters in urban areas such as Accra (Tuffour and Appiagyei, 2014). This adaptability enables passengers to arrive at their destinations more swiftly than larger vehicles, such as buses and minibuses, which frequently encounter considerable delays owing to heavy traffic and several stops. These challenges, especially during peak periods, hinder the overall efficacy of buses and minibuses, rendering them less attractive for individuals requiring prompt, direct transportation (Appiah-Opoku et al., 2023). Consequently, motorcycle taxis have emerged as the favored option for passengers who prioritize speed and convenience in heavily congested urban areas.

#### ***Environmental impact***

The rising prevalence of motorbike taxis in urban areas like Accra has considerable environmental consequences, chiefly because of their emissions and ecological impact. Research demonstrates that motorcycle taxis significantly exacerbate air pollution in urban environments, releasing elevated concentrations of carbon monoxide (CO), hydrocarbons (HC), and nitrogen oxides (NOx) relative to bigger vehicles (Peters, 2004). In contrast to buses and minibuses, which can accommodate numerous passengers simultaneously, motorbikes often serve as single-passenger vehicles, resulting in elevated emissions per passenger-kilometer (Olutayo and Adeyemo, 2024). This inefficiency worsens urban air quality problems, endangering residents' health and contributing to greenhouse gas emissions. Conversely, larger public transportation alternatives, despite their environmental drawbacks, generally exhibit a reduced per-passenger ecological footprint owing to

their greater capacity and the possibility of utilizing cleaner fuel technology (Olutayo and Adeyemo, 2024). Mitigating the environmental issues associated with motorcycle taxis necessitates specific laws that advocate for the adoption of more fuel-efficient or electric versions and foster sustainable urban mobility (Kolbe, 2019).

### **Safety**

Safety issues with urban transportation alternatives in Accra underscore significant disparities between motorbike taxis and larger vehicles like buses and minibuses. Motorcycle taxis are notably linked to elevated accident and injury rates, considerably impacting road accident statistics due to variables such as excessive speed, absence of protective equipment, and inadequate road infrastructure (Olutayo and Adeyemo, 2024). The identified safety issues have generated significant apprehension among passengers and policymakers, resulting in the prohibition of commercial motorbike services in several areas of Ghana as a precautionary measure (Olutayo and Adeyemo, 2024). Buses and minibuses are typically regarded as safer due to their size, stability, and compliance with authorized routes, leading to a lower incidence of fatalities or severe injuries per capita compared to motorbikes (Aderamo, 2012). The safety advantages of buses and minibuses may be undermined by irregular maintenance procedures, since certain operators neglect to maintain adequate safety standards, hence endangering passengers (Aderamo). The disparity in safety profiles between motorcycles and larger public transport options highlights the necessity for more stringent laws and enhanced infrastructure to improve road safety in Accra.

### **Long-term economic sustainability of motorcycle taxis in Ghana**

The long-term economic viability of motorcycle taxis in Ghana depends on effectively addressing challenges such as market saturation, fluctuating fuel prices, and changes in urban transport policies. While these taxis offer essential employment opportunities and affordable transportation in congested areas, their sustainability is at risk due to the oversupply of operators, which can reduce individual earnings and threaten the sector's overall stability. Market saturation, characterized by a surplus of operators relative to demand, undermines income potential. Additionally, the unpredictability of fuel prices presents a significant economic challenge, as fuel constitutes a major operational expense, and price fluctuations can shrink profit margins. Urban transport policy reforms, such as the development of enhanced public transit systems, may also decrease the competitiveness of motorcycle taxis. With Ghana's

ongoing urbanization, initiatives to improve bus or rail services could shift commuter preferences, necessitating diversification or integration of motorcycle taxi services into formal transport frameworks. To safeguard the sector's sustainability, stakeholders must focus on improved regulation, operator training, and alternative business strategies (Barbour et al., 2024; Kwarteng et al., 2023).

In addition to economic concerns, safety and legal issues pose significant risks to the sector's future. Elevated accident rates, often caused by insufficient road infrastructure, untrained operators, and weak regulatory enforcement, deter customers and elevate operational risks (Agyemang et al., 2021). Furthermore, the informal nature of motorcycle taxi operations in Ghana leaves operators vulnerable to police harassment and extortion, reducing both profitability and public confidence in the sector (Aderamo, 2012). These safety and legal challenges not only impact operators but also hinder the sector's potential to function as a reliable and sustainable mode of transport.

### **POLICY IMPLICATIONS**

This study provides valuable insights into the dynamics of motorcycle taxi operation as a public transport option in the urban life of African cities. The findings reveal the dominance of young males in motorcycle transport, their educational background, employment history, and the advantages and disadvantages associated with this livelihood. Considering these results, it is essential to consider policy recommendations that address the challenges faced by operators while capitalizing on the opportunities presented by this mode of transportation.

Given that motorcycle taxi operation serves as a significant source of employment, policy initiatives should focus on formalizing and regulating the sector. The ban is largely driven by their association with unsafe behaviors, such as over-speeding, failure to use helmets, and unlicensed operations, which significantly contribute to road traffic accidents (National Road Safety Authority, 2023). Legal reforms could provide a solution to these problems by formalizing the sector, implementing mandatory licensing, and introducing safety training, and enforcing stricter traffic regulations. Coupled with public awareness campaigns, these measures could reduce safety risks and incorporate motorcycle taxis into the formal urban transport system, enhancing their economic impact and curbing illegal practices (Konkor et al., 2019). Examples from countries like Rwanda and Tanzania demonstrate that structured legal frameworks can successfully balance safety concerns with the economic benefits of motorcycle taxis in urban settings (Barber, 2015). The legal recognition of motorcycle taxis can help protect operators from harassment by law enforcement, fostering a more stable and secure work environment.

Authorities should collaborate with industry stakeholders in these activities.

Additionally, targeted programs to enhance the skill sets of operators can contribute to improved job prospects and increased professionalism within the sector, promoting inclusive legislation, special trainings and safer working environments could enable women participate more in motorcycle operations and improve economic prospects. A thorough operator education program should cover safe driving, customer service, and vehicle maintenance to improve motorcycle taxi safety and reliability. To reduce accidents and injuries, defensive driving, traffic laws, and protective gear should be emphasized. To improve passenger satisfaction, training programmes should emphasize punctuality, courteous communication, and professionalism. Practical instruction on routine inspections including tire pressure, brake function, and engine health is needed to prevent mechanical breakdowns and reduce environmental effect. A planned training curriculum with these aspects improves operator safety and service quality in similar circumstances. Partnerships with local governments and non-governmental organizations could help fund and implement inexpensive and comprehensive training programmes. Such approaches would improve motorcycle taxi professionalism and make urban transit safer and more efficient.

The study identifies challenges related to infrastructure deficiencies and high operational costs. Policymakers should invest in improving road conditions and traffic management systems to create a safer and more conducive environment for motorcycle transport operators. Financial support programs, such as low-interest loans or grants, can be introduced to help operators overcome initial investment and ongoing expenses. Moreover, initiatives to diversify income streams, such as encouraging the integration of delivery services, can enhance the economic resilience of operators.

## Conclusion

This study examined the role of motorcycle transport in Accra, Ghana's urban life and employed a mixed-method approach to assess its socioeconomic impact on operators. The findings reveal that motorcycle transport is a male-dominated business; which employs young individuals aged 20 to 40 with varying educational backgrounds. This occupation serves as a significant form of employment for the economically active age group, providing decent income and stability. Many operators transitioned to this business due to unemployment and economic challenges in their previous occupations.

Despite the advantages, the study highlights several challenges, including the risk of accidents, exposure to

adverse weather conditions, harassment by police, and negative public perceptions. Conversely, opportunities for operators include high demand for their services and the ability to earn quick income.

To address these concerns, policy recommendations include formalizing and regulating the sector, addressing safety concerns through legalization, improving infrastructure, and providing economic empowerment initiatives to enhance the overall well-being and sustainability of motorcycle transport operators in Accra.

## CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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