

Research Report

Exploring strategies for enhancing poor women's mobility and access to Boda boda (Motorcycle) taxi services in Nairobi and Dar-salaam

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Lead Researcher: Dr. Violet K. Wawire, Kenyatta University, School of Education Email: wawire.violet@ku.ac.ke/wawire.violet@gmail.com. Telephone: +254-712761820/733761920

Team Members

Dr. Lanoi Maloiy, University of Nairobi. Email: lmaloiy01@gmail.com. Telephone: +254-790990915Stephano

DR. Stephen Nalaila, Mzumbe University, Morogoro, Tanzania Email: nalailastephano@mu.ac.tz. Telephone: +255- 656846041

Abstract

There is recognition that low-income urban women in major African cities have been marginalized from accessing formal transport systems comprising private cars and taxis. Yet, low-income women need affordable and fast transport options due to their multiple reproductive and productive roles, consisting of taking children and family members to school and hospital and engaging in economic activities. Notwithstanding, informal motorized transport modes like buses, three wheelers and motorcycle(boda boda) taxis still remain inaccessible to most low-income women due to cost, flexibility and safety concerns. This paper explores the emerging boda boda transport sector in Nairobi and Dar Salaam, presents a viable mobility and accessibility mode given its flexibility and door to door service. However, its safety risks and the higher costs in comparison to buses seem to make it less attractive for some women. At the same time, there is limited data on the usability and access to boda boda transport by women in urban centers in East Africa that can be used to streamline the sector and make it more gender friendly and accessible to low-income women. Drawing from existing policy, interventions and empirical data of the challenges including push and pull factors and usability patterns of low-income urban women in Kibera, Nairobi and Gongolamboto, Dar es Salaam, this study aimed to fill this gap. Findings from a survey c and interviews indicated that the availability of bodaboda taxis in Nairobi and Dar-es Salaam has not translated into equitable use especially for low-income women due to barriers that include high price points, sexual harassment, maltreatment by riders and passer bys, fare over- charge, accidents, theft and crime. Given the flexibility and efficiency of bodaboda taxi services, women in low-income settings were using it to meet their gender and productive roles. The innovative strategies currently in use by women in low-income settings to navigate the challenges around bodaboda use should be used to inform ongoing and future work including sensitization of key bodaboda stakeholders, interventions and local and international policy development.

CHAPTER 1: INTRODUCTION TO THE STUDY

Background

There is growing popularity of the use of motorcycle taxis as a means of public transport across African cities to service the mobility needs of urban residents, following a decline in organized public transport systems (UN Women, 2021, Olvera et al, 2020, Kumar, 2015). Motorcycle taxis, commonly known as Boda boda in East Africa, supplement informal transport services provided by minibuses and shared vans (Kumar, 2015). The motorcycles are used as taxis where riders charge fare to transport goods or passengers, and have been occasioned by the absence of reliable, efficient transport, poor road network and terrain and their maneuverability through common heavy traffic jams found in most African cities (Bishop and Barber, 2018, Panel, 2015). Motorcycle taxis are normally used either as the main means of transport or in combination with another public transport mode (Porter, 2020). While in Kenya the registered motorcycles increased remarkably from 123,539 in 2016 to 252,601 in 2021, that of Tanzania rose from under 2,000 in 2003 to over 800,000 in 2014 (KNDHS, 2014, Bishop and Amos, 2015). In addition to transporting as many as 635,000 people per day going by the evidence from one African city where data is available, the sector provides employment for youth through motorcycle ownership, rider jobs and repair and spare part sale roles, contributing to the tune of 3.4 % of the GDP Kenya (Olvera, 2020).

Motorcycle transport use however comes with its own challenges and risks that include getting involved in serious accidents given that most of them do not provide helmets to their passengers. Many are unlicensed and have not gone through driving school adequately. Boda boda reported accidents are the highest among other road accidents in Kenya and Tanzania. The riders are also reported to harass women and abet criminal activity (Porter, 2020, McDonald et al 2005). The general usability of boda bodas, like other public transport modes, in Nairobi and Dar Salaam cities is associated with low-income earners and people working and living in the informal sector given the limited (15%) level of private car ownership in both cities (Salon, & Aligula, 2012). Nevertheless, the mobility needs and experiences of urban users from different social groups including women and those of low-income earners living in informal settlements are not homogenous (UN Women, 2021, GTZ, 2007). For example, women, based on their gender roles that require them to perform both productive and reproductive roles that include household chores, childcare and income generating activities, make short, multiple trips in a given day. They therefore **need flexible services** that take them closer to their varied destinations (Muhoza, et al, 2021). Further, their need to combine trips and tasks tend to be money and time consuming thus requiring cheaper and faster means of transport. Regrettably, this kind of transport set up is not available in African urban cities where the buses are time wasters because they must fill up before takeoff. Conversely, the more time efficient motorcycles are expensive and unsafe making available transport services less accessible for most poor urban women (UN, Women, 2021).

Most available data on women and boda boda mobility is based on **rural settings** (Obundo, 2020, Starkey, 2016). While some limited data exists on **the mobility patterns of poor urban women, this work does not clearly provide information on the unique transport access needs in relation to specific modes of transport like boda boda that are used by 21% of the women in Nairobi** for example (Muhoza et al, 2021, UN, Women, 2021, GTZ, 2007). Such data is vital for ongoing interventions, policy making and structural reforms in the boda boda sector in Kenya and Tanzania. These are aimed at streamlining the sector to address safety issues that curtail the usability of boda bodas by groups of people who need them the most, especially women. **Interventions like the Safeboda which operates in Kenya and trains Boda boda riders to provide safe and friendly services would benefit from data on how to cater for the needs of their female clients.** Such a venture will not only boost sales but also improve access to boda boda services by poor urban women (Shell, 2017). Similar benefits would be reaped by the latest policy interventions in Kenya and Tanzania where boda boda riders are required to register in boda boda associations for better regulation and accountability of their rogue behavior (AFCAP, 2015, Bishop et al, 2015).

Problem Statement

Urban poor women in Nairobi and Dar Salaam, who make up 50% of the population currently lack access to transport services that limits access to opportunities that are not in the proximity of residential areas, such as education, healthcare, and employment (Muhoza, et al 2021). These women are required by society to perform gender roles that include taking care of the household chores and caring for children and family members by taking them to school and hospital, putting food on the table as well as performing income generating activities. They need a low cost, flexible, door to door, consumer friendly service (UN, women, 2021, GTZ, 2007). While their low-income status relegates them to using cheaper means of transport like buses, **these appear to be inflexible, time inefficient, uncomfortable and unsafe due to overcrowding and possible exposure to sexual harassment**. On the flip side, while boda bodas, currently attracts 21 % of Nairobi's urban poor women, and presents a more time efficient and flexible means of transport that can take them door to door, the associated safety risks and the higher costs in comparison to buses, seem to make it less attractive for some women. Yet, while some data exists on the needs and experiences of **rural women** in Kenya and Tanzania with boda boda transport, **such data is lacking for major urban cities like Nairobi and Dar Salaam that where the majority of the residents are women, mainly living in slums and involved in informal income generating activities** (Muhoza et al, 2021). Few recent studies have explored the relationship between gender, mobility and poverty in sub-Saharan African cities. **There is a need to study the accessibility and usability patterns of poor urban women to boda boda transport that is emerging to be a flexible and reliable transport mode in the two main East African cities**. This will form one of the main objectives of this study. Further, the study fills the gap in existing literature by exploring the pull and push factors for boda boda use by poor urban women that is useful in engendering the ongoing structural reforms and interventions of the sector in Kenya and Tanzania. **Interventions like the safeboda initiative, policies on registration of riders in associations, the use of ICT to manage boda-boda operations, training to enhance safety are some of the strategies that were be explored in terms of how they can be engendered**. Ultimately, this study explores strategies that can promote the role of motorcycle taxis in the promotion of social inclusion of poor women in urban cities through an empirical review of existing reform activities and programs in the two cities. The study results were disseminated to the relevant stakeholders including boda boda associations, riders, NGOs and government officials through stakeholder dissemination meetings.

Objectives and Research Questions

Main Objectives of the study

1. To establish trends in the access and usage of motorcycle taxis among low-income women in Nairobi and Dar-salaam cities
2. To analyze the push and pull factors and barriers to the access and usage of motorcycle taxis for low-income women in Nairobi and Dar-salaam cities
3. To explore strategies for enhancing access and mobility to motorcycle taxis for low-income women in Nairobi and Dar-salaam

Main Research: What strategies can enhance the mobility and access to motorcycle taxis for poor women in Nairobi and Dar-salaam cities?

Specific Research Questions

1. What are the trends in the access and usage of motorcycle taxis among low-income women in Nairobi and Dar-salaam cities?
2. What are the enablers and barriers in the access and usage of motorcycle taxis for low-income women in Nairobi and Dar-salaam cities?

3. What strategies can enhance mobility and access to motorcycle taxis for low-income women in Nairobi and Dar-salaam cities?

CHAPTER 2: LITERATURE REVIEW

Examining how informal Transport systems drive African cities, Agbiboa, (2020) contended that paratransit services in urban Africa are above all, a way of life, an organizing urban logic that cannot be banned or ignored. He finds that paratransit vehicles which include motorcycle taxis provide the primary form of mobility for the average Africans and typically serves Africans in low-income brackets.

As such informal transport such as motorcycle taxis provide opportunities for interaction, including a means of shaping mobility and transport of patterns among various groups of people in African urban spaces (Agbiboa, 2020; UNDP, 2022). While many scholars discuss informal transport and its influences on the larger social economic and political conditions of African cities (Agbiboa, 2020; UNDP, 2022), these studies pay little attention to contributions of women to these modes of transport as both stakeholders and users. For example, when it comes to the motorbike usage and ownership trends among men, they note these are symbols of manhood, but does not neglect the role of women in these trends. Therefore, it is necessary to examine the ways in which low-income women interact with and contribute to trends and usage of motorcycles.

Trends in the usage of motorcycle taxis among low-income women in Nairobi and Dar-salaam cities

Access to any transport service including boda boda entails users feeling that the services are affordable in terms of cost and efficient time wise. Access also means the transport service is not only readily and adequately available but also easy to use (Randal, 2023). Boda boda services are readily available in major towns in East Africa including slums Nairobi and Dar-salaam (Business Daily, 2022). Official data shows that the National Transport and Safety Authority (NTSA) registered 285,203 motorcycles in 2021 compared to the 186,434 registered in 2017 in Kenya registering a growth margin of 52% in this period (Business Daily, 2022). Unfortunately, boda boda taxis are not affordable to most users, majority of whom are low-income earners and women (Obudho, 2020). For example, in rural Tanzania, motorcycle taxi fares have been found to be between USD 0.17-0.34 per kilometer, which is considerably more than rural bus fares, which average between USD 0.035 and 0.047 per kilometer (Willilo and Starkey, 2013). Unfortunately, the available data on access to boda-boda taxis is based on users living in rural areas in Kenya and Tanzania. Given the differences in the geo-socio- dynamics of rural and urban areas in Africa, and the related differences in the needs of women from the two locations, the present study explored how the cost boda boda relates to access for urban poor women. This was done through user satisfaction surveys and Key Informant Interviews with women and boda-boda riders in the two countries.

Motorcycle taxis provide important complementary services, and in many cases represent the only mobility option for those who would otherwise be excluded from access to public transport (Ehebrecht et al., 2018). These motorbike taxis are often used in lieu of walking and to reduce commuting time or to avoid traffic jams which are frequent in African cities (Dzisi & Lugada, 2021). Boda bodas are also used to quickly maneuver through unpaved roads (Dzisi & Lugada, 2021). This is useful in areas like informal settlements where access roads remain unpaved.

The sector is almost exclusively male dominated as riders, but when it comes to users, women tend to be more than male users (Ehebrecht et al., 2018). For example, in one study, there were up to 90% female users (Mohammed, 2011). The article pays little attention to women users as a key constituency that possibly influences and, in some ways, sustains the expansion of the motorcycle industry. Also, while it acknowledges the male dominated nature of the sector it equally fails to question the extreme absence of literature on women in the sector in terms of existing barriers in both usage and participation.

Ndiku, (2017) visited various Boda-boda stations in Machakos to examine the role of women's roles in the Boda-boda sector. He found that in Vyulya Machakos County, women were key investors in that, they acquired their own motorbikes and operated them directly, or hired riders to run them. He also alludes to women riders and investors in the sector often juggle multiple income generating activities, keeping different working hours among other things because of their gender and prevailing gender roles.

Nonetheless, since his study is exploratory in nature, it does not trace the trends in the emergence of these roles. Similarly, in his examination of the challenges that the women face, he focuses on the women riders and not motorcycle usage among low-income women.

Several other studies seek to examine the critical factors fueling the success of motorcycle services and its socio-economic benefits (Agbiboa, 2020; Gitonga, 2014; Kariuki, 2014; Mwobobia, 2011; Starkey, 2016; Walter et al., 2014). Yet most of these studies do not examine the gender dynamics catalyzing the noted successes, in particular **there is very little examination of the usage trends among low-income women in informal settlements.**

In terms of comfort in using boda boda, there are indications that in some communities in Uganda, there are restrictions in the use of this means of transport for women. Due to the intimacy that comes from the proximity of passengers to the driver, women using boda boda in such culturally restrictive setups are **forced to seat sideways posing safety and sexual harassment concerns** (Gillen, 2016, Porter, 2011). **Similar evidence also indicates that boda boda riders are involved in various crimes including rape, stealing from passengers, over speeding resulting into accidents, collusion with organized criminal, riding motorcycles while under the influence of alcohol and drugs, starting off fights and beating and harassing passengers, committing murder, abductions and kidnappings and enticing and luring and giving school girls money in exchange for sexual favors** (Opondo and Kiprop, 2018). Given women's inferior position in patriarchal societies, they are more likely to bear the brunt of these **crimes** yet there is limited data on this. This study documented women's perceptions and comfort experiences while using boda boda with the aim of informing strategies on how the motorcycles are designed. Further, given that women in low-income settings use transport services to transport goods to access markets, this was an area of investigation in the current study relating to the theme of comfort in relation to women being able to carry their heavy luggage (Opondo and Kiprop, 2018).

In terms of access to boda boda in Tanzania, The Land Transport Regulatory Authority (LATRA) is currently working with University of Dar es Salaam (University Computing Centre UCC) to develop a system that will capture real time data on registered motor vehicle taxis. However, the available data describes the boda boda taxi operations in Tanzania since 1990s and their registration increased from 10,036 by 2013; 830,000 motorcycles in 2014 and over a cumulative total of 1.2 million in 2016 country-wise (Surface and Marine Transport Regulatory Authority-SUMATRA, 2015; Tanzania Revenue Authority, 2015; Bishop and Jinadasa, 2017; Luambano, 2020). This data may therefore be undependable because they rely mostly on manual sources which are likely to be unreliable.

In terms of contribution to Boda boda Taxi country's GDP, the Boda boda Taxi business is still regarded as informal in Tanzania and its contribution to Country's GDP is not clear (Campbell et al., 2022). However, some evidence based on Net Present Value (NPV), Benefit Cost ratio (BCR), and Profitability index confirm the business profitability and significant contribution to household income and livelihood (Luvinga & Kilasara, 2020).

The rapid increase of Motorcycle taxis in cities and towns in Tanzania has made this form of transport the quicker, most accessible and flexible mode of transport by low- and middle-income earners in urban and rural areas. The recent reports from governance agencies (Land Transport Regulatory Authority -LATRA, 2019/20; 2021/22) show that motorcycle taxis have reduced the burden on poorly constructed roads in both rural and urban settings and provide employment to a large youth population (18-49 years old). Despite its risky nature, motorcycle taxis are preferred by different segments of the population because it offers equal access to mobility for both male and female (Mbegu and Mjema, 2019).

The motorcycle taxi business is an informal sector whose data on usage seems unclear. Some evidence shows an increase in the use of motor vehicle taxis for the recent two decades. Some variations in the usage of boda-boda taxi are caused by fare within and between places in rural and urban areas. In both contexts, the **expense of travel** impacts women more than men, such that, far fewer women than men are able to take advantage of *boda-boda* as passengers: For example, the study in Kibaha district (Tanzania), 18% of older women compared with 31% of older men ($n=339$) had used one in the week (Starkey et al., 2013). The fare costs are also higher during high night-time and rainy seasons thus making the usage to

exclude the poorest and women in Kibaha ([Porter et al., 2013a](#)). Such trends show that, the boda-boda taxi offers a door-to-door service in many locations and are now proving a lifeline for both genders (Luvinga & Kilasara, 2020). However, the trend indicates that, women are potential commercial users of the boda boda taxi services, **but their decision to use and daily usage of boda boda taxi is conditioned by their gender roles and income status**. Studies are therefore needed to establish ways in which women negotiate between their household roles that necessitate frequent mobility on one hand and risks associated with financial limitations, boda boda taxi drivers' mistreatment and rampant accidents.

The motorcycle taxis are conceived as a causative agent for many accidents and associated injuries and deaths. Some data (Campbell et al., 2022) show that, the total number of 4079 motorcycles was involved in accidents in Tanzania between January and December 2015. The registered accidents caused a total of 1747 deaths and 4826 injuries. This can be compared to the report between January and December 2014 involving 3710 motor cycles, causing 1423 deaths and 3622 injuries (Luambano, 2020). Up to 80% of boda boda taxi accidents involved commercial boda boda. Women have less control over the trend of boda boda taxi related accidents because they are neither drivers nor owners of both private and commercial boda boda taxi ([Mulongo, Porter and Tewodros, 2020](#)). This implies that, women must decide on possibilities to ensure safe use of boda boda taxi against risky drivers' practices that impose insecurity in their daily operations.

The multi-country survey by World Bank Group observed that, around 1 in every 5 women between the ages of 15 and 49 years in Dar es Salaam frequently experience various forms of verbal and non-verbal Gender Based Violence public transportation and spaces in the form of groping, cat calls, inappropriate comments, assault, and rape. The survey further shows that, in Dar es Salaam, 59% of female commuters experienced some form of Gender based Violence while traveling at least once in the past six months. GBV incidents are most common among younger women, with over 77% of affected women being between 18 and 25 years old while the rate is 55% for older women. Unfortunately, GBV is highly underreported and distinctively stigmatized, thus posing serious risks to women in terms of likelihood for high frequency, low detection rates, large variation in types, and high social tolerance. Furthermore, the reported official data (at the police) made no distinction between violence and harassment in other forms of public transport, particularly boda boda taxis whose operation is even more complex because of difficulties to track.

Enabling factors and barriers in the access and usage of motorcycle taxis for low-income women in Nairobi and Dar-salaam cities

Enabling factors

Motorbike usage has been found to **improve healthcare access**. For instance, Ouko and colleagues (2019) found that motorcycle transport considerably improved pregnant women's access to healthcare facilities in Siaya County Kenya. The study further concludes that widespread adoption of motorcycles for transportation has reduced the distance and reliance on walking. Similarly, Obudho et al., (2020) determined that women in rural areas of Sub-Saharan Africa valued use of motorcycle taxis due to their mobility and time saving attributes to and from market over other means of transport. This was in spite of their awareness of the safety concerns the sector posed to them as women. Consequently, it is evident that Motorcycle taxis play a significant role in the economic and social life of women in the rural areas (Kumar, 2011), however, there is a paucity in related studies for low-income women in informal settlements. Thus, this study fills a gap in the literature by being able to examine the usage of motorcycle taxi services among low-income women in informal settlements and the accompanying barriers and catalysts for the same.

Barriers

Despite the success of Motorcycle (boda boda) taxis in many African countries including Kenya and Tanzania, the sector is faced with barriers due to associated notoriety and criminality (Agbibo, 2020). Data from the National Crime research center lists fatal motor cycle accidents, robbery, drug abuse, rape

and defilement as prevalent boda boda related crimes (Opondo & Kiprop, 2018). Nonetheless, the data from these studies are not gender disaggregated making it difficult to analyze the effect of these challenges on women's specific welfare in informal settlements. This is important because other studies reveal that women form the larger percentage of users of motorcycle taxis (Agbiboa, 2020; Kumar, 2011; Mohammed, 2011). Teenage pregnancies and school dropouts are closely associated with boda bodas (Opondo & Kiprop, 2018; Riko & Handa, 2019). Implicitly, the notoriety of the motorcycle taxi sector also perpetuates gender specific challenges among women in low-income areas. As such, it is necessary to examine how women navigate these challenges and establish gender specific ways of using motorcycle taxis in addition to the enduring obstacles that they face.

Incidentally, some studies investigating challenges facing boda-boda operators found a reluctance in general by many motorcycle users to wear helmets because people dislike wearing other people's headgear (Ouma, 2021; Starkey, 2016). This was most common among women, who were even perceived as uncooperative customers due to their unwillingness to wear helmets to avoid messing their hair (Nyaga & Kariuki, 2019; Ouma, 2021). These barriers allude to a gap within the Boda-boda industry in order for it to transform to meet the needs and experiences of women who constitute a significant percentage of boda boda users.

On the other hand, studies that delve into the public health problems occasioned by the motorcycle taxi sector repeatedly find that women experienced gender-based violence in the hands of Boda-boda operators (Agade & Mkutu, 2019; Keya-Shikuku, 2019; Mbugua, 2017; Ndiku, 2017; Nyaga, n.d.; Opondo & Kiprop, 2018; Starkey, 2016; Walter et al., 2014). Even as the majority of aforementioned studies feature citations of violence against women, very few focus on GBV in the industry, its impact and mitigation measures within the sector. Studies indicate that certain demographic details such as marital status, education levels, occupation and boda-boda use frequency make women vulnerable to GBV. And even though the results of their study correctly reveal to them that age and marital status are not statistical determinants of gender violence experiences of women using 'boda boda' they still make outrageous conclusions about the GBV against women in the boda-boda sector. Some of the results showed that less literate and women in low-income brackets appeared to be more vulnerable to gender based violence however, analysis of this study notes that these are structural conditions that leave these women vulnerable to violence.

The notoriety and criminality associated with the motorcycle taxi sector in Sub Saharan Africa has also resulted in studies revolving around regulation and safety in the sector. For example, Nyasio, (2021), assesses the compliance with NTSA (operation of Motorcycles) Regulation 2015 among boda-boda operators in Mbita, Kenya. While Amadi Ombisa, (2016) examined how the existing policies and regulations improve the motorcycle taxi sector. He found that owners and operators of boda bodas had little awareness and knowledge of government legislation and policies on the sector. Lack of enforcement of traffic rules also contributed to the lack of observance of the rules (Ombisa, 2016).

Mugwe, (2018) examines determinants of safety within the sector and Pirie, (2013,2014) explores the sustainability of urban transport in Sub-Saharan Africa, with considerable attention to informal transport. However, none of these studies incorporate women's welfare and well-being as a key component in regulation and policy implementation. That is the ways in which women interact with and the barriers gendered and otherwise, are integral to the process of ensuring the usability of boda bodas for women. Moreover, the existing regulations and policies governing the operations of motorcycle taxis in Kenya and Tanzania do not have provisions on women's safety while attempting to mitigate the prevalence of GBV in the sector (Kenya Law, n.d.). Still there are studies that saw regulations as encompassing associations and unions of operators in the sector (Kariuki, 2014; Mabula, 2014). Participation is largely attributed to the majority male population within the sector, leaving out the trends and in usage and benefits that may exist for women. Especially because there are studies that show that women engage in the Motorcycle taxi business as entrepreneurs, including operators, and users for their income generating projects (Ehebrecht et al., 2018; Ndiku, 2017). As such there is need for more studies revolving around women's interests in the sector, the enabling factors as well as barriers that surround said interests.

In 2020, the Boda Boda Safety Association of Kenya (BAK), the State Department for Youth Affairs, the State Department for Gender, UNFPA and I Choose Life – Africa, came together to launch the BAK Women Chapter with a goal of strengthening the organization of women in the sector, and amplifying their voices for greater empowerment and social change (UNFPA Kenya, 2020). Maichuhie, (2020) explained that this was meant to enhance gender equality in the sector by encouraging more women to venture in the field. Similarly, the UNFPA representative saw it as a way of addressing the problem of underrepresentation of women in the sector, improving their welfare through access to affirmative action funds while simultaneously boosting their role as champions for the health and wellbeing of women and girls at the community level. While this was a welcome acknowledgement and notable attempt at tackling women's challenges in the sector, neither the goal nor the reasons outlined concentrated on the trends in the usage of motorcycles among low-income women or the barriers that necessitated this underrepresentation. Additionally, its focus on women riders leaves out the many other women stakeholders and users in the motorcycle taxi industry. And while the BAK women's chapter brought together women riders from all 47 counties, little attention was given to the varying challenges that women face as a result of their socio-economic geographical location. As such, this study sought to highlight the trends in usage of motorcycle taxis not just among women riders but among women in informal settlements.

Strategies can enhance mobility and access to motorcycle taxis for low-income women in Nairobi and Dar-salaam cities.

Strategies for enhanced access and mobility by boda boda in Kenya and Tanzania are available from literature. However, these are gender blind (Obudho, 2020, (Mbugua, 2011). Training as a means of reducing boda boda related accidents is the most evident strategy. Training levels were low (40%), and theory based due to the cost of formal training provided by commercial driving schools in Nairobi (Mbugua, 2011). General training on how to ride is provided mainly informally by experienced riders to new bees. Given the masculine nature of the boda boda industry that is dominated by male drivers and most times male trainers, the likelihood of women's needs being considered in the training are limited. NGOs like UN Women were also noted to be providing training on Gender Based Violence (GBV) to drivers in Kenya. However, the reach and impact of this kind of training is yet to be documented (UN Women, 2022, Obudho, 2020). This study analyzed the curriculum and reach of existing boda boda training programs for gender inclusivity of women passenger needs.

Technology was the strategy being advocated for addressing the safety risks faced by boda boda users that include women (Weru and Mugo, 2020, Nesbitt-Ahmed and Fraser, 2017). Boda boda riders managed or belonging to App based companies or associations were a common approach. Safeboda, a commercial motorcycle –taxi service in Kampala is app operated. An evaluation of SafeBoda revealed that women were happy with its services giving it a 4.9 out of 5 rating on the satisfaction scale that was liked because of its safety and professionalism of the drivers (Nesbitt-Ahmed and Fraser, 2017). While Safeboda services are not available in Kenya and Tanzania, a similar experience is being offered by app-based rider services attached to major hailing taxi companies including Uber and Taxify and purely boda-boda hailing companies like Mondo Ride and Juu Boda (Weru and Mugo, 2020). The use of digital boda bodas in Nairobi is rising and currently stands at 17% compared to vehicle use at 80% (Weru and Mugo, 2020). This study explored the experiences of low-income women with technology operated motorcycle services to establish how they cater for women's needs. Further, it documented their role in gender inclusivity through exploring current approaches and processes for opportunities to be explored and any gaps that can be addressed to expand women's access to boda boda services for low-income women in Nairobi and Dar-salaam.

CHAPTER 3: RESEARCH METHODOLOGY

Project Design/methodology

The study applied a mixed methods approach using both qualitative and quantitative data collection tools. Specific methods included a survey, Focus Group Discussions (FGDs), desk review of relevant documents and an observation checklist. This approach ensured that reliable and credible data was generated, based on the triangulation of qualitative and quantitative data. Data collection took place in Nairobi and Dar es Salaam in Kenya and Tanzania respectively; focusing on women in the urban poor category. The next section outlines the various methods employed to collect data.

Sampling Framework

The 10% of the population of women in the two sites were sampled to answer questionnaires arriving at a final sample of 300 and 400 respondents in Dar es Salaam and Nairobi respectively. This sampling frame met the statistical threshold for population generalization. Respondents for FGDs and Key Informant Interviews were purposely selected based on their distinct status as women residing in the slums or riders and NGOs operating in these localities.

Desk review

An in-depth review of available literature was conducted, making use of literature on transportation, women and their mobility and transportation needs and lastly literature on boda boda transportation. This informed information about trends and usage of motorcycle taxis among poor women, in Nairobi and Dar-es Salaam cities.

The desk review provided secondary data that was to be used for informing the development of surveys and qualitative focus group discussion guides that were undertaken during fieldwork. The desk review data was also used to inform the literature review of this report by assessing the mobility of women via boda boda in Nairobi and Dar es Salaam.

Survey

The survey was undertaken to help understand and establish trends in the access and usage of motorcycle taxis among urban poor women in Nairobi and Dar-es salaam. This survey comprised randomly selected women aged 18 and above and was administered in homes, shopping centers and near schools to women categorized as the urban poor. The survey also established trends in boda boda usage, barriers or challenges and advantages women - who can be classified as urban poor face when accessing and using boda boda transportation in Nairobi and Dar-salaam cities.

Focus Group Discussions

Focus group discussions were used to explore strategies that can improve access to boda boda transportation for women in Nairobi and Dar-salaam. These discussions also clarified trends in access and usage of boda boda transportation among marginalized women and in Nairobi and Dar-salaam cities that were found in the literature and survey administered.

The focus group discussion was guided by a semi-structured guide. The FGDs were attended by at least eight participants to maximize chances for every participant to talk. Discussions focused on shared experiences that discussants had on boda boda transportation. Each session lasted 40 to 60 minutes. A voice recorder was used as backup to write notes taken during the sessions to facilitate the accurate recall of verbatim quotations. Recordings were then transcribed after the interviews and analyzed.

Key Informant Interviews

Key informant interviews were conducted with key boda boda stakeholders including boda boda associations, NGOs and relevant government officials.

An Observation Checklist- Spot check of usability patterns of motorcycle taxi use by gender- purpose of boda-boda use, helmet use by passengers and driver, design of passenger sit- whether raised or not and time used in negotiating a trip formed the areas of behavior observation. The observations were done on a typical working day starting at 5.30 to 8pm in the evening for three days in both Kenya and Tanzania.

Data analysis

The information from the desk review was analyzed using thematic analysis and relevant gender theories informed the analysis of the information. Quantitative data analysis from questionnaires and observation checklists involved cleaning, coding and feeding the coded data into SPSS. This data was then categorized using frequencies and percentages to draw meaning out of them. In some cases, cross tabulations of the variables were done to establish association between them.

Once the information from the survey was received it was processed using matrix and SPSS software, where it was further quantified and presented into tables. The qualitative data was first to be transcribed and analyzed using thematic analysis. That is finding recurring themes and placing relevant quotes and information under those themes. Quotes from participants were used in the report – in order to ensure that the voices of women and their discussion points are noted- that is women are allowed to speak about their situation. However, information that may identify the participants was removed to ensure confidentiality. The data was then written in the form of a research report, journal papers based on each objective, a policy brief and stakeholder dissemination plan.

CHAPTER 4: RESEARCH FINDINGS

Demographic Information

The findings from Table 1 overleaf provide a demographic profile of the female users of boda boda taxis in Dar es Salaam and Nairobi.

A majority of those using boda boda transport were married (54.8%) Nairobi and Dar es a (45%). Women who used boda boda also tended to have Secondary school education 44.6% in Nairobi and 37% in Dar es Salaam. Most of the women respondents in Nairobi were Shopkeepers (19 %), followed by those offering Salon and beauty services (18%). In Dar es Salaam most women were involved in small business (37%) and selling groceries (14%).

Table1: Demographic Information of Study participants in Nairobi and Dar es Salaam

Location	Nairobi (Kibera)		Dar es Salaam) Gongo la Mboto	
	Frequency	Percentage	Frequency	Percentage
Education				
No formal schooling	1	0.3	32	11.3
Primary	94	24.1	98	34.8
Secondary	174	44.6	104	36.9
Post-secondary	121	31	48	17
Total	390	100	282	100
Marital status				
Single	153	39.5	60	23.3
Married	212	54.8	116	45
Separated	12	3.1	55	21.3
Widowed	10	2.6	27	10.5
Total	387	100	258	100
Occupation				
Food vendors	42	10.9	29	10.5
Selling groceries	45	11.7	39	14.1
Unspecified small business	39	10.2	103	37.3
Stationery and Computer services	4	1	6	2.2
Shopkeepers	74	19.3	22	8
Restaurant/hotel	10	2.6	7	2.5
Saloon, beauty and clothing activities	70	18.2	6	2.2
Casual labor	45	11.7	20	7.2
Other occupations	55	14.3	44	16
Total	384	100	276	100

Table 2: Purpose of making bodaboda trips (Nairobi)

	Nairobi (Kibera)						
	Kiandaa	Soweto	Sarang'ombe	Olympic	Makina	Jamhuri	Total
Going back Home	2	0	10	5	4	2	23
Work	12	7	73	15	37	5	149
School/university	1	1	8	2	2	0	14
Hospital/clinic	5	1	8	1	0	1	16
Market	25	8	102	1	11	4	151
Transfer to other modes	2	3	9	0	0	0	14
Total	47	20	210	24	54	12	367

Table 2 above indicates the purpose for which women used a boda boda. The findings from table 2, indicate that most women in Kibera used boda bodas to go to the market and work. This is consistent with studies by Obudho et al., (2020) who found that women not only found boda bodas a time saver, but they also found that women used them to undertake domestic chores and to get to workplaces. **What is surprising about the low number of women using boda bodas as a means to transfer to another mode of transport and using them as a means to get to school, or healthcare centers.** In particular this finding varies from work undertaken by Ouko (2019) in rural areas where women used them to go to the maternity clinic.

Interviews with male boda boda drivers indicate that the majority of their clientele are women –whom they take to do errands and they also deliver items to.

This is true because from my end, out of a population of 100%, 75% are women. I carry them to run hotel errands, picking and dropping things, shopping among other things so they are really helpful to us. (Male boda boda riders focus group discussion)

Table 3 : Purpose of making the bodaboda trip (Dar es Salaam)

	Dar es Salaam (Gongo la Mboto)				Total
	Gongo la Moto,	Ulongoni A	Ulongoni B	Markazi	
Going back home	9	11	25	17	62
Work	38	18	14	19	89
School university	3	4	5	0	12
Hospital/clinic	1	1	0	1	3
Market	31	18	18	13	80
Transfer to other modes	16	5	5	1	27
	98	57	67	51	273

Table 3 above also reports the results of the purpose of women using boda bodas in Dar es Salaam. Similar results were reported in Dar es Salaam, with most women using boda bodas to get to work, go to the market and get back home. The quote below supports the results of the survey.

sisi wafanyabiashara wadogo wadogo hutumia bodaboda alfafjiri zaidi kila siku ,huenda na kurudi na mizgo asubuhi hiyohiyo. We small traders use bodaboda at dawn every day, we go back and forth with the load the same morning.

The only difference in findings in Dar es Salaam, was there was a slight increase in the number of women using boda bodas to transfer to other modes of transport. **Key findings from this section are that women in Nairobi and Dar es Salaam use boda boda transport to undertake domestic chores like going to the market and also going to work. The majority of women surveyed in both Nairobi and Dar es Salaam were businesswomen (small businesses, beauty services and shopkeepers).**

Trends in access and use of bodaboda taxis among women in Nairobi and Dar- Salaam cities

The purpose of the study was to establish trends in the access and usage of motorcycle taxis among low-income women in Nairobi and Dar-salaam cities. This section presents the data and findings on trends in access to bodaboda in terms of availability and affordability.

a. Availability of bodaboda transport for women in informal settlements

Access to any means of transport means the transport service is readily and adequately available. Data from the survey and interviews with women indicated that bodaboda services were easily available in their localities and in most cases were as close as at their doorsteps. The table below portrays this reality. The women were asked whether they agreed to the statement that Bodaboda taxis are accessible in terms

of close pick-up points and drop off at desired destinations. The results of their responses are portrayed in the table below.

Table 4: Women's perception on availability based on close pick-up points and drop off at desired destinations.

Option			
	Nairobi (N=391)	Dar-Salaam (N=290)	Total (N=681)
Agree	382 (97.7%)	236 (81.4%)	618 (90.8%)
Neutral	8 (2.0%)	39 (13.4%)	47 (6.9%)
Disagree	1 (0.25%)	15 (5.2%)	16 (2.3%)

The results in the table 4 indicate that most women on average in the two cities (90.8%) found bodaboda taxis available in their vicinities compared to other means of transport like buses which had specific bus stops. This was the case for more women in Nairobi (97.7%) compared to Dar-Salaam (81.4%). These results were corroborated by voices of women in Kibera and Gongolamboto provided in the excerpts below:

Yes, they do, because they are in every stage and are also looking for customers like other operators. Matatus are only available on specific stages like Karanja, Ulinzi and Makina Dc but motorcycles are everywhere, and they consume little space. You can even wake up in the morning and find a stage has been formed by motorbike operators and you can't remove them because they also have a voice (FGD with women in Kibera, Nairobi).

R1: We easily access bodaboda in this area; it only requires you to have money.

R1: Majority of bodaboda taxi stages are located in close proximity, within a walking distance from where we live. You can either walk to access a bodaboda taxi stage or call one to your home.

R2: There is time you must make two to three calls to get one. This is especially during peak hours when most of the riders are busy.

R3: Sometimes it is not easy to get a bodaboda rider: There is a time you call a bodaboda rider to pick you, you wait for some time for one to come. They can promise to arrive in 5 minutes, but you wait for over 10 minutes due to their distance to the pick-up point. They can make you late to your errands.

R4: In some cases, however, one (bodaboda taxi) has to attend several other customers to attend to you. As such you may be forced to wait a bit longer (FGD with women in Gongolamboto, Dar-Salaam).

Interview data indicates that the longer waiting time experienced by women when they requested for boda-bodas in Gongolamboto may be one of the explanations of why some women in Dar-es Salaam (5.2 % in table 4), found this service inaccessible.

To further corroborate the above data on accessibility to bodaboda, the women were asked whether they agreed to the statement that the availability of Bodaboda taxis had increased in their area. The results of their responses are portrayed in the table below.

Table 5: Perception on whether there has been an increase of Bodaboda taxis in Women's Location

Question	The availability of Bodaboda taxis has increased in my area		
	Nairobi (N=391)	Dar-Salaam (N=281)	Total (N=672)
Agree	372 (95.1%)	216 (76.9%)	588 (87.5%)
Neutral	15 (3.8%)	38 (13.5%)	53 (7.9%)
Disagree	4 (1.1%)	27 (9.6%)	(4.6%)

Table 5 indicates that the majority of the women (87.5 %) were of the view that bodaboda services had increased in their locations compared to only 4.6% who disagreed with this statement. However, Nairobi registered a higher percentage (95.1%) compared to Dar-Salaam (76.9%).

Lack of availability of bodaboda taxis in the two informal settlements also came up as a barrier to the usability of boda bodas as indicated in the table below.

Table 6: Lack of availability of Bodaboda taxis in women's locations my area as a barrier to bodaboda use.

Question	Lack of availability of Bodaboda taxis in my area as a barrier		
	Nairobi (N=388)	Dar-Salaam (N=282)	Total (N=670)
Important Barrier	297(76.5%)	223 (79.1%)	520 (77.6%)
Not Important Barrier	91(13.5%)	59 (20.9%)	150 (22.4%)

Table 6 indicates that a majority (77.6%) of the women in Kibera and Gongolamboto found the availability of bodaboda to be a barrier in using the service. This was more of a barrier in Dares-Salaam than Nairobi with implications on more waiting time and related gender roles and economic opportunity losses.

b. Affordability

i) The cost of bodaboda trips compared to other means of transport

Affordability is a key element in individuals accessing transport services including bodaboda. This is especially important for women living in informal settlements on low incomes. The study endeavored to elicit information on how affordable bodaboda transport was affordable for women living in slum settings in Nairobi and Dar-es Salaam. The women were asked to indicate the cost (on average) for the common trip one way. The responses are given in Table 7 below:

Table 7: Boda-boda trip average costs for Women in Kibera and Gongolamboto

	Nairobi (Kibera)		Dar-es- Salaam (Gongolamboto)	
	Amount in KSH	Frequency	Amount in TZS	Frequency
1	Less than 100	215 (55.8%)	Less than 2000	144 (53.5 %)
2	Between 100 and 200	146 (38%)	Between 2000 and 4000	86 (32 %)
3	Above 200	24 (6.2%)	Above 4000	39 (14.5%)
	Total	385	Total	269

Based on the table, majority of respondents (55% for Nairobi and 53.5% for Dar es Salaam) have common bodaboda trips (1-3 kilometers) whose equivalent prices are closely similar. The currency's equivalent to USD rates for the two cities make the prices in Dar es Salaam, which is 2000 TZS (0.80 USD) a slightly higher than that of Kenya (100 KES), equivalent to 0.63 USD. Matatu (minibus) fares for the same distance in Nairobi cost 50 KSH which is half the price of bodaboda taxis. Infarct, the high price of bodaboda was curtailing the accomplishment of gender roles for women as indicated below;

Despite the flexibility and convenience, women feel the bodaboda taxi is too expensive to serve all their routes (FGD with women in Gongolamboto, Dar-Salaam).

However, to gauge whether these price points were affordable for the women the responses from a related questionnaire item below responds to this.

Table 8: Perceptions on whether Bodaboda taxis fare prices were affordable for Women.

Question	Bodaboda taxis are affordable for me		
	Nairobi (N=389)	Dar-Salaam (N=270)	Total (N=659)
Agree	175 (45.0)	134 (49.6)	309 (46.9)
Neutral	61(15.7)	65 (24.1)	126 (19.1)
Disagree	153(39.3)	71(26.3)	224 (34.0)

From the table 8, there were mixed viewpoints on whether the cost of bodaboda taxi fares were expensive with almost half (46.9%) of the women indicating that they were not contented with the price of bodaboda taxi fares compared to 34% who had no problem with it. There were slightly more women in Dar-es Salaam (49.6%) compared to the number in Nairobi (45.0%). Similar results were established when women indicated that cost of boda-boda was a point of concern as compared to that of other means of transport. Table 9 provides further details on this.

Table 9: Perceptions on concern over the price of Bodaboda taxis fare prices for Women

Question	There is cost concern on the use of bodaboda taxis compared to other means		
	Nairobi (N=385)	Dar-Salaam (N=270)	Total (N=655)
Agree	171(44.4%)	134 (49.6%)	305(46.6%)
Neutral	61(15.8%)	65 (24.1%)	126(19.2%)
Disagree	153(39.8%)	71(26.3%)	224(34.2%)

Mixed results on the affordability of bodaboda taxis costs compared to other means of transport indicated in the above table were supported by data from interviews with some women saying it was expensive and others holding an opposite view. This is indicated in the selected excerpts below:

R1: The cost is most convenient especially when riding short distances but quite expensive while traveling far. From Kibera to Nairobi CBD where I frequent, they normally charge me Ksh 200 which to me is very high. Using a matatu for the same is normally Ksh 50.

R2: The cost indeed is too high, but I normally use it for convenience (FGD with women in Kibera, Nairobi).

R1: The bodaboda fare is normal compared with the purpose served. We find it difficult to afford just because of our low-income level, but otherwise it is a fair price.

R1: The rise in fuel price has forced people to reduce the number of trips.

R2: If compared with daladala/matatu, bodaboda is more expensive of course, but it ensures convenience and much time to complete your chores. Boda boda taxis transport is efficient and cheap compared with Bajaj/tuk-tuk FGD with women in Gongolamboto, Dar-Salaam).

The above excerpts reveal that bodaboda taxis are affordable for short trips but less economical for longer trips. They also unearth the reasons behind the mixed feelings behind the views of women on the issue of whether boda bodas are affordable. Explanations for contrary views on the subject include the low-income levels of women living in the slums while supportive views were based on the fact that boda bodas gave value for money to the users due to the convenience, accessibility, efficiency and flexibility of the bodaboda taxis compared to the other means of transport.

ii) Gender and Factors for variability in Bodaboda prices

The study results indicated that the bodaboda fare prices seemed unstable as they tended to go up depending on various factors that were common among women in both cities. Rainy conditions, the urgency of a given trip, when using dangerous, unfamiliar and rough terrain routes/ destinations and night and peak hour trips were some of the common issues. For example, a similar trip would shoot from 0.63 USD to 0.80 USD at night or on rainy days in Nairobi and from 0.90 USD in Dar es Salaam. The following voices of women elaborate these issues further:

Yes, it does a lot in the rainy seasons, even when it just starts to drizzle. It's either you board or don't. This doesn't happen when it's hot because they know that Kenyans are afraid of the rain. When it's hot you can just take a lap. (FGD with women in Kibera, Nairobi).

R1: There is also variation of fare prices with time. You may be forced to pay more especially during odd hours depending on the time and the urgency of the route/travel.

R4: The cost also varies at times especially at late night hours when one is more vulnerable. They will charge you exorbitantly either you take it or leave it. One ends up paying the amount for fear of being mugged (FGD with women in Gongolamboto, Dar-Salaam).

Bodaboda price variability had more dire implications on women compared to men given that women were generally more vulnerable to exploitation and abuse in the two study communities. For example, women said they are **susceptible to physical and sexual harassment at night** from the bodaboda drivers or other people when safety is not guaranteed and also that they can be over charged in certain circumstances outlined above because of their gender.

However, more explicit gendered factors for price variability were also reported by women. Women said that **how a woman was dressed affected the fare they were given for a bodaboda ride , with more expensive looking dress codes eliciting expensive fares based on the perception of wealth**. The study revealed other circumstances under which women were exploited and overcharged. These included whether one was using a certain driver for the first time or whether one was overweight. This is illustrated below:

No, you might call your specific rider and find that they are not available, this may force you to look for another rider who you can trust. You may need a rider and maybe they have another customer on board leaving you with no choice but to use the available rider. It's good to have option B in case your specific rider doesn't respond (FGD with Women, Kibera, Nairobi). They like small motorbikes. We like teasing fat women that we cannot take them to Toy Market with just ksh50, they need to add up. I carry the lady and her kids to the market regularly. Wherever I am she asks for me and if I'm not available she would rather walk to her destination. Other riders cannot carry her with the same amount but really, I don't see a problem as long as I know how to balance myself (FGD with Women, Kibera, Nairobi)

R1: Some of them and especially the overweight is uncomfortable when the road is rough and with potholes or there are road bumps. They would normally request you to slow down, and this affects my work as I need to hurry up to make more turns. Sometimes the design of the boda boda is challenging to some women. We prefer installing bigger shock absorbers to help carry the excess weight and avoid damaging the boda boda (FGD with male Bodaboda Riders, Kibera, Nairobi).

c. Ease in use of bodaboda transport for women in informal settlements

Another aspect of accessibility to transport services is the ability to easily use it. Ease in usage in the case of bodaboda taxis entailed how comfortable it was physically for women and their interactions with the driver. To elicit sentiments on the comfortability of bodaboda services for women the survey asked them whether they found bodaboda taxis comfortable.

Table 10: Perception on comfortability of seating astride o bodaboda rides for women

Question	I feel comfortable using Bodaboda taxis (sitting position, proximity to the driver etc.		
	Nairobi (N=390)	Dar-Salaam (N=275)	Total (N=(665)
Agree	199 (51.1)	130 (47.3)	329(49.5)
Neutral	84 (21.5)	64 (23.3)	148(22.3)
Disagree	107 (27.4)	81(29.4)	188(28.2)

Table 10 indicates that almost half (49.5%) the women agreed that bodaboda services were comfortable for women users with a third of them disagreeing with this statement. There was a small margin between respondents from the two countries with a higher margin in Nairobi. Explanations behind the lack of comfort in using bodaboda taxis were elicited form FGDs with women. **Women said bodaboda taxis were not easy to use because of the physical design of the motorcycle, which allows close proximity between the passenger and the driver that not only made most women uncomfortable but also contributed to sexual harassment by the drivers**. The table below provides evidence on how boda-bodas are designed and whether women see this as a barrier to usability.

Table 11: Perception on whether the Design of Bodaboda taxis and comfortability for Women

Question	The design of bodaboda taxi seat makes the sitting uncomfortable		
	Nairobi (N=391)	Dar-Salaam (N=280)	Total (N=671)
Important barrier	227 (58.1%)	233 (83.2%)	460 (68.6%)
Not Important Barrier	164 (41.9%)	47 (16.8 %)	211 (31.4%)

The results in the table 11 indicate that the majority (68.6%) of the women found bodaboda taxi experiences uncomfortable due to the design of the motorcycles in both cities with slightly more women expressing this in Dar-es Salaam (83.2%) than Nairobi (58.1%). This exemplifies the views of some women from Kibera and Gongolamboto on the above issue.

R2: For proximity to the rider, I hope there could be a way of designing so as to ensure there is no body contact between the passenger and the rider (FGD with Women in Kibera , Nairobi).

Some women do not like the bodaboda tax seats as they are small, making the sitting uncomfortable (FGD with Women in Gongolamboto, Dar-Salaam).

R1: The challenges are many. As earlier noted, some women wear very tight dresses and then request to be carried sideways. This is normally very dangerous especially during wet seasons as balancing becomes very difficult especially to us lady bodaboda riders. Unlike the motor vehicles the bodas do not have seat belts and a passenger may fall down easily. The way boda bodas are designed is also challenging. We have different boda boda models like the skygo or the boxy type. The skygo is smaller with a slanting passenger seat and this makes the passenger lean to the rider. Such a boda is not preferred by the elderly women. Most women also do not like the noisy boda bodas especially owned by the young guys (Interview with Female Bodaboda Rider, Kibera, Nairobi).

Further analysis of the interviews revealed that **cultural factors affected the comfortability of women's use of bodaboda especially for Muslim women** whose religion restricted their close physical association with men. This made the close proximity that resulted from using boda bodas through sitting astride very uncomfortable as indicated in the interview excerpts below;

Like I was talking to a group. They are talking about Muslim ladies; they always sit sideways on a motorbike. They cannot move close to the man who's riding... It was there when the boda boda was starting, but nowadays, you would see a few and I would say yes, it's Muslim ladies who would sit sideways and maybe a little bit of older women who would sit sideways, but majority they don't. On the issues of culture. Maybe I'd say, there's a place down there (pointing in the west). They normally discourage women from engaging in certain activities, because you're a woman, you can't be doing that, you cannot be dressing like this. This is not the way women are supposed to be dressed. So, it's a kind of a community, which is not also easy to penetrate into or yes (FGD with women in Kibera, Nairobi).

R3: Muslims sit with their legs facing the same side. It's against their culture to sit across

R1: For us Muslims, it is still a taboo if you sit astride close to the bodaboda rider.

R3: There are few people here who have cultural and religious issues with bodaboda. There is one scenario where a man refused to share a bodaboda seat with a woman who needed assistance on belief grounds. That woman opted to carry her luggage and walk.

R5: A Muslim woman is likely to be perceived negatively by sharing a bodaboda seat with an unknown man uncomfortable (FGD with Women in Gongolamboto, Dar-Salaam).

Other challenges that impacted the comfortability of bodaboda services included loud music played by drivers, rough driving due to rough terrain or recklessness by younger riders as well as poor hygiene of the drivers. This is summed up in the except by a female driver and female user below;

R2: There are times you can meet a drunkard rider, and he will be reckless and can nearly cause an accident. Which is such a risk .Others can hurl insults and just mess up with your day, making you start off your day on a bad note. Others will adjust the fare as you proceed even though you negotiated earlier on and you get into an argument with them, which sometimes is so bad.

R4:Some are too young and can be reckless to cause an accident.

There is that aspect of women who are overweight, when the riders can even add some amount of money to the fair because they think you are too big for their bike. Most young riders are disrespectful and cause accidents. They take weed and can be reckless on the road (FGD with women in Kibera, Nairobi).

All the motorbikes come without all those enhancements you see out there. The owners now invest more by installing speakers for music, lifting the back to be more comfortable. General hygiene, I was able to keep up, making sure the motorbike was cleaned and that as a rider I was also clean. But like I said, I didn't have any enhancements but relied on safety and communication skills to maintain customers (Key Informant Interview, Female bodaboda rider, Kibera, Nairobi).

Personally, I'm very afraid, I don't board pimped motorbikes with music or with riders who are not appropriately dressed. The music can be so loud you won't even hear when other drivers are hooting, so to be safe I just don't (FGD with Older Women, Kibera, Nairobi).

R1: We are OK, but bodaboda riders have issues: They play so loud music that makes us uncomfortable.

R2: Other bodaboda riders are dirty and don't seem to have changed clothes over many days; a bad body odor makes us uncomfortable.

R3: Others don't clean their mouth; they air bad mouth smell when talking.

R5: Dilapidated roads make contract dust; sometimes we are forced to cover the hair so that you remain clean. In other areas with broken roads, one may have to drop down, walk to a good road and then go back to the ride.

R1: During rain seasons, roads are broken down, slippery, covered with mud that make us dirty and tired (FGD with Women, Gongolamboto, Dar-es-Salaam).

There were indications from the data that most of the challenges that impacted the comfortability of bodaboda services by women in the two cities affected older women compared to younger women. This is exemplified by the quote below two of the bodaboda riders:

R1: Most women and especially the elderly ones are mindful of their safety when traveling and they would prefer being carried by me as a woman bodaboda rider because I can understand their challenges. Mostly the elderly don't like being carried with a boda boda by the young male riders because of their reckless riding. They also don't like a lot of noise. The challenge with carrying women is when they carry a language or are accompanied by a child. They would prefer asking you to hold the language or the child while they sit pretty relaxing on the passenger's seat. Navigating the boda boda while doing this is quite tedious for a lady rider due to balancing.

R2: Most of them don't like the windy conditions when speeding. There are those that don't like the noise, mostly older women clients. But the younger ones actually prefer those that have been calibrated to produce noise as they like attention (FGD with male bodaboda Rider, Kibera, Nairobi).

Trends in the Usage of Boda boda Taxi in Nairobi and Dar es Salaam

One of the aims of the study was to investigate the time that women in the study area took per trip, the frequency of the trips, the rank of bodaboda mode of transport compared to other forms and the type of bodaboda used the most.

Table 12 :Time at which most trips took place

	Nairobi (Kibera)							Dar es Salaam (Gongo la Mboto)				
	Kian daa	Sow eto	Sarang'ombe	Olympic	Makina	Jamhuri	Total	Gongo la Moto	Ulongoni A	Ulongoni B	Markazi	
06:00-09:00 AM	21	3	110	12	35	6	187(48.1%)	33	40	22	32	117(43%)
09:01-	10	1	24	1	6	2	42	0	11	14	9	34

12:00 PM												
12:01-03:00 PM	6	2	6	6	0	0	20	1	5	6	3	15
03:01-06:00 AM	3	1	9	1	0	0	14	8	2	8	0	18
After 7 PM	3	5	16	5	3	1	33	2	1	8	10	21
No specific time	5	10	54	6	13	4	92(24%)	54	3	11	1	69(25%)
Total	48	22	219	31	57	13	388	98	62	69	55	274

The responses in Table 12 show that, in Nairobi, the majority (48%) took most of their common trips between 06 to 09 am, followed by those with no specific time (24%). Comparatively, 43% of women in Dar es Salaam took most of their boda boda trips between 06 to 09 am, with 25% of women who took most trips at no specific time. The responses in Table 12 present the number of times that urban low-income women in the surveyed areas used bodaboda taxis.

Table 13: Patterns in Frequency of Bodaboda trips for women in Nairobi and Dar es Salaam cities

		Nairobi (Kibera)		Dar es Salaam (Gongo la Mboto)	
S/N		Frequency	Percentage	Frequency	Percentage
1	Once a day	49	14.5	53	22.6
2	Twice a day	172	50.9	128	54.7
3	Up to 3 times a week	107	31.6	29	12.4
4	4 to 6 times a week	10	3	24	10.3
	Total	338	100	234	100

The responses based on the Table 13 show that, the majority of the surveyed women (about 51% for Kibera and over 54 for Gongolamboto) used the bodaboda taxis twice a day. Over 31% and 29% for Kibera and Gongolamboto used the mode of transport up to three times a day. This indicates that, majority of urban low-income women are regular users of the bodaboda transport.

Table 14 : Ranking the women use of bodaboda over other modes of transport.

	Nairobi (Kibera)									Dar es Salaam (Gongo la Mboto)								
	1	2	3	4	5	6	7	8	Total	1	2	3	4	5	6	7	8	Total
Daladal	123	10	6	12	5	0	0	0	311	128(91	9	3	0	0	0	0	0	140

a / Matatu	(39%)	6	7							(%)								
Big bus/BR T	49	75	64	41	4	1	0	0	0	234	13	3	0	0	0	0	0	16
Boda boda	154(46%)	75	78	25	1	0	0	0	0	333	106	58	2	0	0	0	0	166
Walking	45	47	70	102	14	3	1			282	5	27	46	3	0	0	0	81
Uber	3	4	1	2	15	31	100			156	0	1	2	0	0	0	0	3
City Train	0	3	1	5	32	74	30			145	4	0	0	0	0	0	0	4
Ferry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bajaj /Tuktuk	4	1	1	8	84	39	13	0	0	150	12	2	9	3	1	0	0	27

The responses show that, in Nairobi, majority of the women (46%) ranked bodaboda the first, compared to those who ranked matatu (daladala) (39%) first. Otherwise in Dar es Salaam, the majority of women (over 48%) ranked matatu/daladala first, compared to 41%, who ranked bodaboda first. The general picture shows a growing interest in bodaboda mode of transport over other common modes, especially matatu/daladala and walking.

Purpose of Bodaboda use among women in low-income areas of Nairobi and Dar es Salaam Cities

The study aimed to identify the purpose that women who use boda boda taxis seek to accomplish. In order to achieve this, the study used questionnaires, FGDs and interviews with key informants. The questionnaire responses are presented in the Table below:

Table 15: Purpose of Bodaboda use among Women in low-income areas of Nairobi and Dar es Salaam cities.

	Nairobi (Kibera)						Total (%)	Dar es Salaam (Gongo la Mboto)				Total
	Kian daa	Soweto	Sarang'ombe	Olympic	Makina	Jamhuri		Gongo la Moto,	Ulongoni A	Ulongoni B	Mar kazi	
Going back Home	2	0	10	5	4	2	23 (6%)	9	11	25	17	62(22%)
Work	12	7	73	15	37	5	149(41%)	38	18	14	19	89(32%)
School/university	1	1	8	2	2	0	14(3%)	3	4	5	0	12(4%)
Hospital/clinic	5	1	8	1	0	1	16(4%)	1	1	0	1	3(1%)
Market	25	8	102	1	11	4	151(41.4%)	31	18	18	13	80(29%)

Transfer to other modes	2	3	9	0	0	0	14(3%)	16	5	5	1	27(10%)
Total	47	20	210	24	54	12	364	98	57	67	51	276

The data based on questionnaire responses show that, the leading use of boda boda taxis for women in Nairobi (Kibera) is the trip to markets (44.1%), followed by the trips to other forms of job (40%). Differently, the leading use of boda boda in Dar es Salaam (Gongolamboto) is the trips to workplaces (32%), followed by use on trips to markets (29%) and back home from various endeavors (22%). However, there is rare use of boda boda taxis for trips to school and hospital in the surveyed areas, only 3% and 4% for Nairobi (Kibera) and 4% and 1% in Dar es Salaam (Gongolamboto) respectively. A significant variation between the surveyed areas is noted on the use of boda boda taxis for trips back home, more in Dar es Salaam (22%) over the same uses in Nairobi (6%). This may be used to explain the spirit to cut costs (on trips that do not lead to income) among Kenyan surveyed women compared to their counterparts in Dar es Salaam. This connects to a statement by a FGD respondent, who stated that:

One is forced to incur the cost of bodaboda taxis because of the necessity. Bodaboda taxis are service transport; it is not a luxury. Therefore, there are circumstances where you need it and there is no other option. One has to reason adequately the necessity to spend on bodaboda taxis; you may go for a cost-free mode when you are not in hurry (Women FGD-Kibera-Nairobi).

Table 16: Type of boda boda taxi preferred by women

		Nairobi (Kibera)		Dar es Salaam (Gongo la Mboto)	
S/N		Frequency	Percentage	Frequency	Percentage
1	App operated	12	3.2	31	11.4
2	Physically accessed	368	96.8	242	88.6
	Total	380	100	273	100

The study further sought to establish the type of bodaboda preferred for use by low-income women in Nairobi and Dar es Salaam. The responses show that over 96% of surveyed women in Nairobi prefer physically accessed bodaboda as opposed to App operated bodaboda. Similarly, the majority (over 88%) of the surveyed women in Dar es Salaam prefer physically accessed bodaboda compared to 11% who preferred App operated ones. The findings show that, despite the safety advantages of App operated bodaboda, women in surveyed low-income areas prefer physically accessed bodaboda.

Satisfaction with the service of Bodaboda Taxi providers

The study was designed to confirm the level of satisfaction with boda-boda services among surveyed urban low-income women. Respondents were asked to state their level of satisfaction from the “*satisfied, Neutral and dissatisfied*” options. The responses are provided in Table 17

Table 17: level of satisfaction with boda boda services

		Nairobi (Kibera)		Dar es Salaam (Gongo la Mboto)	
S/N		Frequency	Percentage	Frequency	Percentage
1	Satisfied	168	43.2	147	52.7
2	Neutral	91	23.4	86	30.8
3	Dissatisfied	130	33.4	46	16.5
	Total	389	100	279	100

The responses on satisfaction with boda boda taxis among urban low-income women show that, majority (over 43% for Nairobi (Kibera) and 52% for Dar es Salaam (Gongolamboto)) are satisfied and therefore happy with the services. In Nairobi, this is followed by 33.4% of respondents who are dissatisfied with

the services and the minority (23.4%) who are neutral. Otherwise in Dar es Salaam, over 30% of respondents are neutral and 16.5% are dissatisfied. The neutral respondents in this context indicate that respondents have some grounds for both satisfaction and dissatisfaction with the services. In general, although the majority of the surveyed women indicated satisfaction with the services, a significant number of the respondents still have concerns especially on safety and hygiene:

“Boda boda taxis are just good, but there is somehow a bad perception by the community that bodaboda riders are reckless and careless. That makes it somehow a risky mode of transport” (Women FGD-Gongo la mboto)

The challenge is being overcharged and especially at night when alternatives are limited. However, some riders ride when drunk. There was a day when I was being ferried, we fell down and my leg got scorched by the exhaust pipe. The drunk rider could barely lift up the motorbike and it could have been worse were it not for the passersby who came to my rescue (Women FGD-Kibera).

Enablers and barriers in the access and usage of motorcycle taxis for low-income women in Nairobi and Dar-es-Salaam cities

This section examines the enabling factors and barriers for low-income women using boda bodas in Nairobi and Dar es Salaam. Key findings in this section indicate that motor bike taxis popularly known as boda boda are easily available to women in the informal settlements of Kibera, Nairobi and Gongo la Mboto in Dar es salaam. While the women surveyed were by and large satisfied with the services of the boda boda riders, they faced barriers in terms of harassment by the male riders, especially at night. The women also felt that the riders were reckless drivers and were untrained.

Table 18: Type of boda boda taxi used

		Nairobi (Kibera)		Dar es Salaam (Gongo la Mboto)	
S/N		Frequency	Percentage	Frequency	Percentage
What type of boda boda taxi do you prefer to use?					
1	App operated	12	3.2	31	11.4
2	Physically accessed	368	96.8	242	88.6
	Total	380	100	273	100
Are you satisfied with the service of Bodaboda taxi providers					
1	Satisfied	168	43.2	147	52.7
2	Neutral	91	23.4	86	30.8
3	Dissatisfied	130	33.4	46	16.5
	Total	389	100	279	100

Table 18 above indicates the type of boda boda preferred by women surveyed in Dar es Salaam and Nairobi. Findings from the survey showed women in both Nairobi (97 %) and Dar es Salaam (89%) reported that they preferred to use physically accessible bodas bodas over apps. Women in both cities indicated that they were satisfied with the services of boda boda taxis.

Data from the survey indicated that 78 percent of women surveyed in Nairobi and 83 % of those in Dar es Salaam reported that they frequently take a boda boda. Availability of boda bodas was reported to have increased in the area, with 95% of women in Nairobi and 77% of women in Dar es Salaam reporting increased availability.

This was supported by qualitative data as noted in the following quote:

Nowadays there's plenty of motorbikes so it's easy to access, they are everywhere. You can even get one outside your house (Women FGD Kibera, Nairobi)

Tunapata kwa urahisi kutokana na hela ulionayo ama uhitaji, unaweza kumwita ama kumfuata kituoni kwao. you get it [boda bodas] easily from the money you have or need, you can call him or follow him at their station. (Women FGD Gonga La Mboto, Dar es Salaam).

The accessibility and ready availability of boda boda taxis are a key enabler. From the qualitative data we can see that motorbike taxis are readily available, and accessible. In Nairobi, 96% of respondents reported that boda bodas have made mobility and access to services easier. Similar findings were reported in Dar es Salaam, with 79% of women surveyed also reporting that boda bodas have made mobility and access to services easier. Women in Nairobi reported that motorbike taxis were more accessible than minibuses, because minibuses were only available in certain locations:

Yes, they do, because they are in every stage and are also looking for customers like other operators. Matatus are only available on specific stages like Karanja, Ulinzi and Makina Dc but motorcycles are everywhere, and they consume little space. (Women FGD Kibera, Nairobi)

Collectively, in Dar es Salaam and Nairobi, women found that boda bodas were able to meet their unique gender roles of undertaking domestic chores, comfortably carrying luggage, and the ability to make multiple trips in a day, including the ease of carrying out daily errands. In particular for getting into the informal settlements – and the transportation of heavy luggage items, boda bodas were very good:

At times it also depends on the weight of the luggage that you've carried since matatus can't go all this way to the interior. (Women FGD Kibera, Nairobi)

The women in Dar es Salaam reported that boda bodas were time-savers aspects of the boda boda was noted by participants:

faida ya kwanza ya bodaboda inakupeleka unapotaka ,yaani unafika mpaka langoni na unaokoa mud asana kwa mambo mengi. The first advantage of bodaboda is that it takes you where you want, that is, you get to the gate, and you save time a lot for many things. (Women FGD Gonga La Mboto, Dar es Salaam).

While the frequency in usage and availability of boda bodas has increased – the survey revealed some challenges with regards to safety. In Nairobi 47% of women did not feel safe from harassment when using boda bodas, 58.4 % did not feel safe from road accidents, while 53% did not feel safe from theft. These findings are consistent with the literature on boda bodas where the sector is associated with criminal activities, road accidents and sexual harassment (Opondo & Kiprop, 2018).

Table 19: Barriers to boda boda taxi use among women

	Location	Nairobi (Kibera)					Dar es Salaam (Gongo la Mboto)				
	Rating	1		2		Total	1		2		Total
	Frequency and percentage	#	%	#	%		#	%	#	%	
	Statements										
i.	Safety concerns when using Bodaboda taxis.	384	98	8	2	392	250	89.3	30	10.7	280
	Availability of Bodaboda taxis in my area.	297	76.5	91	13.5	388	223	79.1	59	20.9	282
	Cultural or societal barriers to accessing Bodaboda taxis as a woman.	236	61	151	39	387	183	64.7	100	35.3	283
	Majority of Bodaboda taxi drivers who are reckless	372	94.9	20	5.1	392	197	70.5	83	29.6	280
	Majority of Bodaboda taxi drivers	366	94.1	23	5.9	389	210	74.7	71	25.3	281

who are unqualified/untrained										
Failure of the Government officials' controls and regulations on speed and identification of registered Bodaboda riders.	331	84.4	61	15.6	392	225	80.4	55	19.6	280
The lack of individual passenger helmets or communal use of helmets	309	79.2	81	20.8	390	223	80.8	53	19.2	276
The cost concern on the use of bodaboda taxis compared to other means	323	82.4	69	17.6	392	203	72	79	28	282
Extreme weather conditions challenge the use of Boda boda taxi (rain, heat, dust)	340	86.7	52	13.3	392	217	77.2	64	22.8	281

While bodas have proved to be accessible and ease the burden of women's multiple domestic and work responsibilities, there were some barriers reported in the survey administered. **The most cited barrier was around safety concerns while using boda boda.** That is, 98% in Nairobi and 89% in Dar es Salaam. These safety concerns were supported by the qualitative data where women were hesitant to use bodas as they **feared harassment particularly at night**- as demonstrated by the following quotes:

Mostly I prefer cars to motorbikes since motorbikes are very skeptical and one can be harassed. At times when you use motorbikes, there are young men who drop you off near their place instead of the actual destination especially after a night out when one is drunk and so they take advantage of you. (Women FGD Kibera, Nairobi)

Nowadays most of them are raised, the normal ones were taken back to the rural areas. The riders take advantage of that by increasing the speed so that they can a hug from behind which I feel is a form of sexual harassment since I never gave my consent. (Women FGD Kibera, Nairobi)

Riders are ignorant and harass women, for example , you can be at the stage, and someone spansks you , they should be educated and told that that is not good behavior. (Women FGD Kibera, Nairobi)

Kuanzia saa tano na saa sita usiku sio salama kabisa, mara nyingi usiku huo nakua natoka kanisani na kwenye sherehe. From 11 o'clock to 12 o'clock at night it is not safe at all... (Women FGD Gongu La Mboto, Dar es Salaam).

The affordability of boda-boda taxis presented a barrier. Women in Dar es Salam perceived these taxis as costly, mainly because of the women's limited finances. But women did recognize the value for money for the service, especially due to the accessibility, efficiency and flexibility of the taxis. In Nairobi – costs become a factor at night, or when traveling towards areas that are insecure.

Ukilinganisha na daladala boda boda ni gharama ila unaokoa muda na kufanya kazi zako kwa urahisi pia boda boda ni nafuu sana kulinganisha na bajaji japo umbali ni ule ule. If you compare it with Daladala boda boda, it is expensive, but you save time and do your work easily, also boda boda is very cheap compared to bajaji, even though the distance is the same. (Women FGD Gongu La Mboto, Dar es Salaam).

At night the prices are normally high, especially when you're drunk and well-dressed, they ask you which area you're going to. At night it usually depends on the area of destination. For instance, when you're going to Katwengera from Bombo they'll overcharge you especially after hearing the name Kibera because that is a dangerous area. When going to Laini, you can even be charged ksh 500 because it's a risky area where there are thieves making it difficult to walk around and they can also identify if the rider is not from around. Because of such risks, the rider feels the need to hike the price. (Women FGD Kibera, Nairobi)

Respondents reported that the motorbike riders themselves also proved to be a barrier. That is, the motorbike riders were perceived as reckless and lacking in motorbike riding training. This is seen in the survey findings which reported that **95% of women surveyed in Nairobi and 71 % of women in Dar es Salaam cited recklessness of drivers as a barrier.** They went on to elaborate that the drivers were **unqualified and untrained, with 94 % of women in Nairobi, and 75% in Dar es Salaam reporting this.** The issue of driver recklessness was echoed in the qualitative data – with women opting to seek older drivers and even negotiate the speed limit:

I only use motorbikes if I'm familiar with the rider and before the trip we must agree on the speed limits. I also consider the age of the rider. I prefer older riders than young ones since they understand what should be done on the road. Young riders mostly over speed so as to get many trips. (Women FGD Kibera, Nairobi)

They are reckless riders on the highway in the middle of lorries. They claim that they must keep up with the highway speed, they don't fear anything even when big vehicles are approaching. (Women FGD Kibera, Nairobi)

Some of them claim that they are already dead so if you haven't that's on you.' If it's your turn, it's your turn that's what they say. (Women FGD Kibera, Nairobi)

Madereva wa bodaboda hawazingatii wala kufuata alama za barabarani kabisa, pengine hawajui pia maana hawa wa mtaani hamna wanaposomea pikipiki. Bodaboda drivers do not pay attention to or follow the road signs at all, they probably don't know them either because they do not go to train motorcycles (Women FGD Gongu La Mboto, Dar es Salaam).

Serikali iboreshe mafunzo maana tunawategemea boda hadi kutupeleka hospitali wasajiriwe kabisa. Kupunguza uhalifu. The government should improve training, because we depend on them until they send us to the hospital, they should not be employed at all. Reduce crime. (Women FGD Gongu La Mboto, Dar es Salaam).

The issue of improved training of motorbike riders was cited as a way of eradicating this barrier and improving driver and passenger safety.

From Table 5 above, respondents cited governance issues around boda boda registration as a barrier in both Nairobi and Dar es Salaam. This is similar to findings in the desk review of documents and studies around the boda boda sector where Ombisa (2016) found that enforcement policies and regulations improve the motorcycle taxi sector, but often studies fail to examine women's welfare and well-being as a key component in regulation and implementation. The qualitative data –also highlighted a related them on enforcement, which is the lack of police enforcement or follow up on boda boda crimes reported by citizens:

At times the riders you report are known at the police station so no action will be taken. They might have family members and friends there. (Women FGDs, Kibera, Nairobi)

Personally, I can't report such a case in Ayani or Olympics police station because no action can be taken. The riders can bribe the policemen before you even get to report the case. They turn the case around, and they will still look for you afterwards. The worst that can happen in this situation is murder because you have trashed the rider's name. You won't feel safe. (Women FGDs, Kibera, Nairobi)

Ombisa also points out the lack of dedicated motorbike legal frameworks, specific lanes and infrastructure. This would assist with professionalizing the sector.

In Nairobi the women who attended the focus group discussion further suggested that enforcement and registration of boda bodas should be done at a local level through the chair of the local boda boda association. Participants quotes below point all this out:

Motorbikes are not really unsafe, it's the operators who are thieves. When something happens at a registered stage, the crime can be reported to the chairman. (Women FGD Kibera, Nairobi)

The chairmen who are in charge of registered stages should also be held accountable and follow up on the new riders concerning their age and where they are from. The chairmen should be made aware about this since the reputation of motorbike operators has been ruined and only, they are the ones responsible for change. . (Women FGD Kibera, Nairobi)

Serikali ifikirie kuwasajiri wote wafahamike vituo kwa serikali ya Mtaa/Afisa maendeleo. The government should consider hiring all the centers to be made known to the local government/development officer (Women FGD Gongu La Mboto, Dar es Salaam).

Women in Nairobi identified environmental factors such as rain, dust and cold weather conditions as a barrier. **That is 87% of women in Nairobi and 77% in Dar es Salaam cited these weather conditions as barriers to use of motorbikes.** The qualitative data supported the survey, where participants noted that in particular during the rainy season and cold winds which could contribute to health problems:

No, not at all because the cold is unbearable. You can end up getting a health problem that you never had. That's why people prefer using motorbikes for short distances. (Women FGDs, Kibera, Nairobi)

Something that emerged from the data in Dar es Salaam – was that while weather conditions were not favorable, women used boda bodas as a courier service to drop off and pick packages, including shopping for foodstuffs.

kipindi cha mvua boda hutumiwa kutufikishia mizigo nyumbani, tunawatuma sokoni kununua mahitaji, na kwenda dukani kama hapa karibu hakuna tunachohitaji basi hupigia bodaboda tunaowafahamu na kuwatuma madukani hata buchani kununua nyama. During the rainy season, the boda is used to deliver our goods home, we send them to the market to buy needs, and go to the store as here we have almost nothing we need, so they call bodaboda whom we know and send them to the shops and even to the butcher to buy meat. (Women FGD Gongga La Mboto, Dar es Salaam).

Apart from the aforementioned findings which closely followed the review of literature, there were some emerging findings which arose from the qualitative portion of the data. For instance, the poor hygiene of boda boda drivers was reported by women in Nairobi as a reason for not using particular riders, sometimes this poor hygiene is also linked to drug use:

When it comes to hygiene a lot of things are involved, one can tell by looking at a rider's bike also you cannot avoid a rider because of hygiene, they may ask themselves a lot of questions. For example, there is a rider at the stage here in Bombolulu who is dirty even at 6:00 am in the morning even before work, while other riders get customers he does not, he can't even afford to buy himself soap to shower. The ones that are usually on drugs don't also get customers; one can know how to ride but no one would prefer a drug addict to their rider. Avoiding them can help them change their behaviors. (Women FGDs, Kibera, Nairobi)

Drug and alcohol use of drivers was also cited by women as a barrier. This made women and other customers avoid using that particular rider.

Women's menstrual cycles – also was reported as a barrier for women. They were afraid of ridicule from the driver in case they stained the seat :

There are irregular and regular flows, a person with a regular flow is aware as compared to one with an irregular flow. The solution is to spread awareness to the motorbike riders, they should be told that anything can happen to a woman, and they should not embarrass them because they are on their period. A rider can just drop them off instead so that the woman can find help. They should not harass women because it messes up with their self-esteem. (Women FGDs, Kibera, Nairobi)

Also, at times when you are on your periods and you aren't aware, you might stain the seat which can make the rider very angry, and he can end up insulting you. Some girls have irregular periods so it's not their fault. The uneducated ones can really embarrass you concerning this matter. Other riders can claim that you've stained their seats because you have no underwear on. (Women FGDs, Kibera, Nairobi)

Strategies for enhancing access and mobility to motorcycle taxis for low-income women in Nairobi and Dar-es-Salaam.

This section presents data on strategies that can be applied to enhance access and use of bodaboda taxis by low-income women in the two cities. The first section comprises strategies currently being used by women in navigating existing challenges in the sector and the second part are suggestions from the sector stakeholders involved in the study.

Strategies used by women to navigate bodaboda taxi access and usability issues.

To navigate the challenges, they faced as women in accessing and using bodaboda services, interviews revealed that women had devised some innovative ways to navigate these. Key among these was the use of designated drivers that were trusted by the women.

Designated drivers

According to women's accounts, the use of designated drivers entailed identifying and engaging a specific bodaboda driver they trusted every time they wanted to travel by calling them. The characteristics of such a driver included one who does not unnecessarily increase prices or harass them in the cause of

the trips and is well groomed and does not drive recklessly. In order to maintain the status quo for when the designated driver was not available, most women had other similar drivers on file. The interview excerpt by the woman below elaborates on how and why they use designated drivers.

For security reasons, women tend to identify bodaboda taxis they are comfortable with. This makes them get into family conflicts over suspicious relationships with bodaboda taxi drivers (FGD with Women, Gongolamboto, Dar-es-Salaam). Some young riders are under the influence of drugs and have only trained to ride for two days, they then start riding officially on the third day. Look at how young the riders are nowadays, as young as 15 years. Others dropped off in the 8th grade and they started carrying their fellow age mates as many of us up to four on one motorcycle.

It's advisable to have your own specific rider or one who is well trained (Kibera (FGD with Women, Kibera, Kenya).

Women still experience sexual harassment especially with unregistered or unfamiliar bodaboda riders (FGD with Women, Gongolamboto, Dar-es-Salaam).

Use of App operated bodaboda taxis

Some women especially in Nairobi were opting to use app operated motorbike services of major car hauling services like Uber and Bolt to guarantee safety and efficiency in service delivery. This is indicated below:

I prefer using uber because it's safe and in case something happens at least I know the uber I took, here is the number and the time (FGD with Women, Kibera, Kenya).

Women mostly prefer operating with applications because they would not be comfortable sitting in a stage where they're ten men and two women. The men might speak inappropriately yet the woman is someone's wife (FGD with Male bodaboda rider, Kibera, Kenya).

Choose diver based on face value assessment.

To ensure bodaboda ride experiences with minimum challenges, women gauged the quality of bodaboda drivers by making a face value assessment before selecting one. The characteristics they mostly looked for include older riders, good hygiene of the diver and machine, the make of the motorcycle among other safety related features. The excerpt below gives an example of what women looked for before selecting a rider to use with preferences varying based on the age of the women.

I check on the rider's age before deciding on taking the trip. If the rider looks young, let's say 15 years, I inquire about who gave the permission for him to be on stage. I also don't prefer old riders because people are judgmental. Mostly I prefer riders in the same age group as mine (FGD with Older Women, Kibera, Kenya).

I prefer Honda to boxers because Hondas are pimped unlike boxers which look raggedy (FGD with Young Women, Kibera, Kenya).

Negotiating fares and trip particulars

Data from observations of bodaboda passenger behaviors revealed that women took longer time compared to men to negotiate rides. The results indicated that while women 20 seconds to 2 minutes men only took 10 to 20 seconds. **Women took time to negotiate trips to avoid misunderstandings on pricing, destinations and other trip dynamics along or at the end of the trip.** The interview segments below provide these details.

R4: It's convenient, it's fast. For the boda riders whom you have negotiated, prices are usually very gentle and nice to the customer, unlike the one you have not spoken to. There are boda riders we use, and you talk to them prior to the ride and they take you straight to your doorstep and have a negotiated price.

R3: Even if you do not have a personal rider waiting for you, they can refer you to a good rider, or walk to the rider stage and talk to a nice rider who will still be fair in the pricing and still treat you well Nairobi (FGD with Young Women, Kibera, Kenya).

Suggested Strategies by sector stakeholders.

The next section examines the strategies suggested by women surveyed. Findings from the survey in Nairobi indicate that the **implementing safety regulations and measures** to ensure the security of low-income women using Bodaboda taxis. That is 62% of women reported this as an effective strategy. While 63% of women also thought that training of boda boda drivers on gender sensitive ways of handling female passengers would be effective. Other effective strategies that were cited by women in Nairobi was the use of community-based support systems such as designated pickup points or information centers for low-income women Bodaboda taxis users. Lastly the use of targeted campaigns to avoid Gender based Violence around Bodaboda taxis were also advanced as effective.

Table 20: Strategies to enhance access and use of Bodaboda taxis for women.

	Location	Nairobi (Kibera)				
	Raring	1		2		Total
	Frequency and percentage	#	%	#	%	
S/N	Statements					
i	Implementing safety regulations and measures to ensure the security of low-income women using Bodaboda taxis.	243	62.1	148	37.9	391
ii	Use of technology, such as mobile applications, for easier access to Bodaboda taxi services.	215	55.6	172	44.4	387
iii	Targeted campaigns promoting social perceptions to avoid Gender based Violence around Bodaboda taxis	227	57.9	165	42.1	392
iv	Community-based support systems such as designated pickup points or information centers for low-income women Bodaboda taxis users.	246	62.8	146	37.2	392
v	Training of bodaboda drivers on gender sensitivity in handling female passengers	246	63.2	143	36.8	389

The survey findings from Dar es Salaam did not categorically present effective strategies for improving boda boda access and mobility for women. However, the qualitative data echoed the Nairobi survey findings – with women requesting more safety and traffic training of boda boda riders, including wearing proper protective gear.

Wavae vikoti vyenye namba au rangi maalumu ili kujua huyu anatokea wapi, Bodaboda wafundishwe usalama barabarani wasivae ndala maana zinadondoka na kuleta ajali. They should wear jackets with a specific number or color to know where this one comes from, Bodaboda should be taught road safety not to wear slippers because they fall off and cause accidents. (Women FGD Gongu La Mboto, Dar es Salaam).

Mafunzo ya bodaboda yatolewe maana wengi hawana leseni. Mfano:- Boda amefundishwa asubuhi anaendesha jioni Bodaboda training should be provided because many do not have a license. For example:- Boda is taught in the morning and then begins driving in the evening. (Women FGD Gongu La Mboto, Dar es Salaam).

The qualitative data from Nairobi also mirrored the survey findings. Women provided more detail on areas for training for boda boda riders, particularly in the area of how to deal with women clientele during their monthly cycle.

The solution is to spread awareness to the motorbike riders, they should be told that anything can happen to a woman, and they should not embarrass them because they are on their period. A rider can just drop them off instead so that the woman can find help. They should not harass women because it messes up with their self-esteem. (Women FGDs, Kibera, Nairobi)

First, awareness is the most important thing in the community. Riders should also be informed on what is wrong and right the same way we have been talked to. It's important to be aware even if they are ignorant. Some of them are uneducated and others are school dropouts so they cannot really have the information on what should be done. (Women FGDs, Kibera, Nairobi)

Women in Nairobi also recommended more female riders as a means of avoiding the sexual harassment of female passengers.

Women mostly care a lot; they know this is someone's child on board hence they handle them carefully. Men usually don't care; I was trained to ride a bike so a girl can't mishandle me or sexually harass you because she knows how it feels. Ladies have a small heart. (Women FGDs, Kibera, Nairobi).

CHAPTER 5: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Summary of Research Findings

Trends in the access and use to bodaboda taxis by women in Kibera and Gongolamboto Slums in Nairobi and Dar-Salaam cities.

- Bodaboda taxis were easily accessible to most women (90.8%) and would be picked as close as outside their houses unlike other means of transport that required them to travel to the designated bus stops. This was the case for more women in Nairobi (97.7%)) compared to Dar-Salaam (81.4%) where longer waiting time was observed for women.
- Bodaboda taxis were easily available when needed by most women (77.6%) with only two out of ten women in the two cities citing availability of boda bodas as a barrier to bodaboda use.

Affordability of bodaboda taxis by women in Kibera and Gongolamboto Slums in Nairobi and Dar-Salaam cities

- Bodaboda taxis were not affordable to almost half of the women in the two cities (46.9%) affecting slightly more women in Nairobi (45.0%)) compared to Dar-Salaam (49.9%).
- In fact, the cost of a bodaboda trip in both cities was double that of a bus with implications on the ability of women to complete their gender and productive roles in a given day.
- However, the convenience, accessibility, efficiency and flexibility of the bodaboda taxis compared to the other means of transport **gave value for money** to the women users.
- Based on the cost margins of bodaboda taxis compared to other means of transport, they were used for shorter than longer trips by women for cost effectiveness.
- Women reported bodaboda taxi fare price variability in certain circumstances that included rainy conditions, the urgency of a given trip, when using dangerous, unfamiliar and rough terrain routes/destinations and night and peak hour trips. Given their vulnerability to exploitation and abuse in the two African societies that women belong to, this issue impacted women more than men.
- Women reported more explicit gender related vulnerabilities to being overcharged that included whether one's dress code looked expensive, when using an unfamiliar driver or looked overweight.

Ease in using bodaboda taxis by women in Kibera and Gongolamboto Slums in Nairobi and Dar-Salaam cities.

- **Bodaboda taxi services were not comfortable for most women** (68.6%) of the women found bodaboda taxi experiences due to its design that forced women to sit in close contact with the driver making them susceptible to sexual harassment and violation of cultural norms in the case of Muslim women. This was more the case for women in Dar-es Salaam (83.2%) than Nairobi (58.1%).
- Other factors that made bodaboda taxis uncomfortable were the **sexual harassment** by drivers, loud music played, rough driving due to rough terrain or recklessness by younger riders as well as poor hygiene of the drivers.
- **Women had devised strategies to navigate bodaboda taxi access and usability issues that included the use of trusted designated drivers, motorcycle Apps of major car hauler companies especially by younger women, assessing bodaboda drivers and negotiating fares before choosing a ride,**

Trends in the usability of bodaboda by women

- Most trips were taken in the morning during rush hours between 6am to 9am majority of the surveyed women.
- The majority of the women (53%) in both sites were regular users of bodaboda taxis using it twice or three times a day to perform their reproductive roles (take children to school/ hospital, go to the market) and productive roles (go to work, market to buy goods).
- Major uses (trips) of bodaboda taxi transport involve going to work, the market (for both Nairobi and Dar es Salaam).
- On average bodaboda taxis were the frequently used mode of transport by women in the two cities with Nairobi users ranking it first among other modes of transport like buses and walking and those in Dar-Salaam ranking it second.
- Physically accessed motorcycles were the preferred (93%) mode by women compared to the app operated ones in both cities.
- Major uses (trips) of bodaboda taxi transport involve going to work, the market (for both Nairobi and Dar es Salaam).
- Over 50% of the surveyed women are satisfied with the bodaboda taxi services.

Push and pull factors and barriers to the access and usage of motorcycle taxis.

- The pull factors to bodaboda use included flexibility in picking and dropping points even using rough terrain road networks, efficiency due less waiting time at pass stops and in traffic compared to bus travel.
- The flexibility and efficiency of bodaboda taxi transport facilitated performance of women's productive and reproductive roles.
- Push factors for bodaboda use for women included vulnerability to sexual harassment, maltreatment by riders and passer byes, fare over- charge, accidents, theft and crime.

Strategies for enhancing access and mobility to motorcycle taxis for low-income women in Nairobi and Dar-salaam.

- Women were currently using some strategies to navigate bodaboda taxi access and usability challenges inclining using designated drivers, Use of App operated bodaboda taxis, assessing driver's face value credentials before using them and taking time to negotiate fares and trip particulars.
- Bodaboda sector stakeholders suggested strategies like enhancing the professional capacity of bodaboda riders through gender transformative training programs, engendering the sector through attracting women riders, sensitizing women in slum areas on how to navigate barriers to bodaboda use and streamline the sector through use of SACCOS and community structures.

Conclusions

- The availability of bodaboda taxis in Nairobi and Dar-es Salaam has not translated into equitable use especially for low-income women due to barriers that include high price points, sexual harassment, maltreatment by riders and passer byes, fare over- charge, accidents, theft and crime.
- Given the flexibility and efficiency of bodaboda taxi services, women in low-income settings are using it to meet their gender and productive roles.

- The innovative strategies currently in use by women in low-income settings to navigate the challenges around bodaboda use should be used to inform ongoing and future work including sensitization of key bodaboda stakeholders, interventions and local and international policy development.

Recommendations

For Government

- It is important for boda boda riders first to be registered. This registration will ensure the safety of passengers.
- The implementation and enforcement of traffic rules and motorbike legislation and management of bodaboda related Gender based Violence occurrence cases.

Boda Boda riders, operators and SACCOs

- Training of boda boda riders on road safety, sexual harassment training, and gender sensitive handling of female passengers.
- Monitoring of boda boda hygiene and cleanliness.

NGOs in Bodaboda transport Sector

- Develop interventions that mitigate the barriers that women in slums face in using bodaboda taxi services.
- Use knowledge on how low-income women navigate barriers to bodaboda use to inform current and future programming activities.

Further Research Work

- Conduct **intersectionality studies** to establish bodaboda usability trends among women of different ages, socio-economic divides and disability status.
- A similar study in rural settings to determine usability patterns among women in different rural settings including ASALs, agricultural and pastoralist areas in the two countries.

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