

Title

**ENHANCING EDUCATIONAL ENGAGEMENT: THE IMPACT OF SISTER CIRCLES ON
GIRL PARTICIPATION AT MKWICHI SECONDARY SCHOOL**

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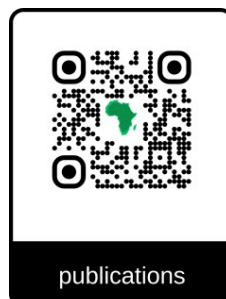
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ABSTRACT

This study investigates the socio-economic influence of motorbike taxi services, locally known as "Kabaza," on rural communities in Nanjiri Township, Lilongwe, Malawi. Kabaza services have emerged as a critical component of the informal transport sector, addressing mobility gaps in areas with limited public transport infrastructure.

Through a mixed-methods approach, including quantitative surveys with Likert-scale questionnaires, semi-structured interviews, focus group discussions, and observations, this research evaluates the economic benefits, such as income generation and market access, and social impacts, including improved access to healthcare and education.

It also identifies operational challenges, such as safety risks and economic exploitation through high leasing costs. Grounded in Sen's Capability Approach and the Livelihoods Framework, the study aims to provide evidence-based insights to inform policy, enhance rural mobility, and promote sustainable development in Nanjiri Township.

KEYWORDS

motorbike taxi, Kabaza, socio-economic influence, rural communities, informal transport, Malawi

INTRODUCTION

This study examines the socio-economic influence of motorbike taxi services, locally termed "Kabaza," on rural communities, focusing on Nanjiri Township in Lilongwe, Malawi. Kabaza has become a pivotal element of the informal transport sector in sub-Saharan Africa, addressing mobility gaps where formal public transport is scarce or unavailable (Goodfellow, 2017). These services have emerged as a critical response to the challenges of rapid urbanization, inadequate transport infrastructure, and high unemployment rates, particularly in rural and peri-urban areas (World Bank, 2020). In Nanjiri Township, Kabaza services provide affordable and flexible transport, connecting residents to markets, healthcare, and educational facilities, thereby fostering economic and social development (Mhango P., (2021).).

This chapter introduces the research by providing the context of Kabaza services, explaining the motivation for the study, and outlining its structure. The investigation aims to evaluate how these services impact the economic and social dimensions of rural life, highlighting both opportunities and challenges. By focusing on Nanjiri Township, this research seeks to contribute valuable insights into the role of informal transport in rural development, a topic of growing significance in Malawi and beyond.

The emergence of motorbike taxi services, known as "Kabaza" in Malawi, is a response to a combination of structural challenges

across sub-Saharan Africa: rapid urbanization, inadequate public transport infrastructure, and high unemployment rates. In Malawi, formal transport options like buses and trains are often unreliable or absent in rural and peri-urban areas, leaving communities isolated. (Bank, 2020), emphasizes that rural regions in sub-Saharan Africa, including Malawi, face poorly maintained road networks, limited vehicle access, and underfunded public transport, which hinder economic growth and social connectivity. Kabaza has stepped in to fill this void, offering affordable, flexible, and rapid transport for commuters, traders, and those seeking employment.

essential services, while providing a livelihood for operators, primarily young men with limited formal education or vocational skills.

Nanjiri Township, located on the periphery of Lilongwe, represents a typical rural community facing with these transport and economic constraints. Agriculture dominates the local economy, with residents relying on small-scale farming for subsistence and income. However, poor infrastructure often restricts access to urban markets, healthcare facilities, and schools. Kabaza services have bridged this gap, connecting Nanjiri to Lilongwe's urban centres. (Mhango, 2021), reports that Kabaza riders in Lilongwe, including Nanjiri, earn MWK 15,000 to 20,000 daily, enabling them to cover household expenses such as food, housing, and education. (Annual transport sector performance report, 2022), further notes that

Kabaza facilitates the transport of goods like maize and vegetables, cutting travel time and costs compared to traditional methods like walking or ox-carts.

This trend mirrors a broader pattern across Africa, where motorbike taxis have surged in countries like Uganda, Kenya, and Tanzania. (Goodfellow, 2017), attributes this growth to urbanization rates exceeding 4% annually and insufficient investment in formal transport. In Malawi, a youth unemployment rate above 20% has pushed many into informal livelihoods like Kabaza (labour force survey, 2023). Beyond direct income, Kabaza stimulates related economies, such as motorcycle repair shops, spare parts vendors, and fuel stations. (Industry, 2023), estimates that the informal transport sector supports over 10,000 indirect jobs in Lilongwe, with small workshops and eateries thriving near Kabaza hubs in areas like Nanjiri.

Globally, the rise of informal transport reflects a shift in rural and peri-urban mobility. In Tanzania, (Porter, 2014) found that motorbike taxis reduced farmers' travel time to markets by 50%, boosting profits from perishable goods by 25%. Similarly, in Nanjiri, Kabaza enables farmers and traders to access Lilongwe's markets, securing better prices and a wider customer base (Munthali, 2020). However, challenges persist. Safety risks are significant, with poor road conditions, reckless riding, and limited helmet use contributing to accidents (Chirwa, 2020). Economic exploitation is also common, as high motorcycle leasing costs

constrain riders' net earnings and financial stability (Mhango, 2021).

Regulatory gaps, including minimal oversight and training, further complicate the sector (Gondwe, 2021). This study builds on this complex background to explore the socio-economic influence of Kabaza services in Nanjiri Township, aiming to provide a balanced perspective on their role in rural development.

Despite Kabaza's growing prominence in rural Malawi, its socio-economic impacts remain underexplored, particularly in localized contexts like Nanjiri Township. While Kabaza services provide income for operators and improve access to markets, healthcare, and education, they also face significant hurdles. Safety concerns are rampant, with Chirwa, (2020) reporting that 30% of Kabaza riders in Lilongwe experience accidents annually due to poor roads and inadequate safety measures. Economic exploitation is prevalent, as high leasing costs often MWK 5,000–7,000 daily consume much of riders' earnings, limiting savings and investment (Mhango P., 2021). Moreover, the lack of regulation and training exacerbates risks, while tensions with formal transport providers complicate operations (Gondwe, 2021). These challenges, coupled with a scarcity of localized studies, necessitate a detailed examination of Kabaza's socio-economic influence in Nanjiri, supported by empirical evidence to inform policy and practice.

To assess the overall socio-economic influence of Kabaza services on the rural community of Nanjiri Township, Lilongwe, in terms of economic benefits, social impacts, and operational challenges.

1. To evaluate the economic benefits of Kabaza services for operators and the broader community in Nanjiri Township.
2. To examine the social impacts of Kabaza services on access to healthcare, education, and social cohesion in Nanjiri Township.
3. To identify the key challenges faced by Kabaza operators and users in Nanjiri Township and propose potential solutions.

The research addresses the following questions, aligned with the objectives:

1. What are the economic benefits of Kabaza services for operators and the community in Nanjiri Township?
2. How do Kabaza services influence access to healthcare, education, and social cohesion in Nanjiri Township?
3. What challenges do Kabaza operators and users face in Nanjiri Township, and how can these be addressed?

This research offers substantial value to various stakeholders. For policymakers and the Malawi Transport Ministry, it provides evidence-based insights into Kabaza's role in rural development, supporting the creation of regulations to improve safety and sustainability. Community leaders and development practitioners can use the

findings to harness Kabaza for economic growth and social inclusion, especially for underserved groups. Academically, the study addresses a gap in localized research on informal transport in Malawi, enriching the broader discourse on transport and development. For Nanjiri residents and Kabaza operators, the research identifies strategies to maximize benefits while mitigating risks, promoting resilience and empowerment in rural communities.

This report is organized into five chapters. Chapter 1 introduces the study, covering the background, problem statement, objectives, questions, significance, and structure. Chapter 2 reviews existing literature on Kabaza services, synthesizing definitions, empirical evidence, and theoretical frameworks to ground the research. Chapter 3 details the methodology, including the research design, setting, population, sampling techniques, instruments, and ethical considerations. Chapter 4 presents and discusses the findings, aligning results with the research objectives. Chapter 5 concludes the study, summarizing key findings, offering recommendations, and suggesting areas for further research. References and appendices, including data collection letters and instruments, follow.

This chapter has introduced the study on the socio-economic influence of Kabaza services in Nanjiri Township, Lilongwe. It provided background on Kabaza's role in addressing transport gaps in rural Malawi, highlighted safety, economic, and regulatory challenges in the problem statement, and defined the

main and specific objectives and questions focusing on economic benefits, social impacts, and challenges. The significance underscores benefit for policy, practice, and academia, while the structure outlines the report's organization. This foundation sets the stage for a comprehensive analysis in the subsequent chapters.

LITERATURE REVIEW

This chapter synthesizes existing research on motorbike taxi (Kabaza) services and their socio-economic impacts on rural communities, focusing on Nanjiri Township, Lilongwe. The review situates the study within the broader academic discourse, identifies knowledge gaps, and establishes a theoretical and empirical basis for evaluating Kabaza's influence. It covers definitions, socio-economic benefits, challenges, and theoretical frameworks. The growth of motorbike taxis in sub-Saharan Africa, including Malawi, stems from limited public transport, rapid urbanization, and high unemployment, positioning Kabaza as a vital mobility and livelihood solution for rural areas (Goodfellow, 2017).

2.2.1 Motorbike Taxi (Kabaza)

A motorbike taxi, known as "Kabaza" in Malawi, is a two-wheeled vehicle used for commercial passenger transport, primarily in areas with scarce formal transport options. These informal services offer affordable, flexible mobility (Cervero, 2000).

2.2.2 Socio-Economic Influence

Socio-economic influence refers to the effects of an activity on a community's social and economic conditions, including income generation, job opportunities, access to services, and social cohesion (Sen).

2.2.3 Rural Communities

Rural communities are low-density areas with limited infrastructure, often reliant on agriculture or informal economies, and face challenges accessing formal transport systems (World Bank, 2020).

2.2.4 Informal Transport Sector

The informal transport sector comprises unregulated or minimally regulated services like Kabaza, addressing gaps in formal public transport systems (Godard, 2016).

2.3.1 Economic Benefits of Kabaza Services

Kabaza services are a cornerstone of the informal transport sector, significantly influencing economic activity in rural and peri-urban areas like Nanjiri Township, Lilongwe. These services provide a low-barrier entry into the labour market, offering viable income opportunities for individuals with limited formal education or vocational skills, particularly young men and, to a lesser extent, women.

Research by (Kumar, (2018),), in Uganda highlights that over 60% of rural youth rely on motorbike taxis as their primary income source, contributing to a 15% reduction in poverty rates in areas with high taxi penetration. Similarly, in Malawi, (Mhango P., (2021).), reports that Kabaza riders in

Lilongwe, including Nanjiri, earn between MWK 15,000 and MWK 20,000 daily. This income supports essential household expenses such as food, housing, and education, with some riders channelling earnings into entrepreneurial ventures like small retail shops or poultry farming, thereby fostering economic diversification (Mhango P., (2021).). The flexibility of Kabaza operations allows riders to adapt to fluctuating demand, maximizing earnings during peak times such as market days or harvest seasons.

Beyond direct income generation, Kabaza services enhance economic activity by improving market access for rural producers. In Tanzania, (Porter G., (2016).) found that motorbike taxis reduced farmers' travel time to markets by approximately 50%, resulting in a 25% increase in profits from perishable goods like vegetables due to reduced spoilage and faster delivery. In Nanjiri, Kabaza plays a critical role in connecting farmers and traders to urban markets in Lilongwe, where they can secure better prices and access a broader customer base (Malawi Transport Ministry, (2022)).

For instance, traders transporting goods such as maize, tomatoes, or second-hand clothing report a 30% increase in income attributed to lower transport costs and faster delivery times compared to traditional methods like walking or using ox-carts (Munthali M. &, 2020). This enhanced market connectivity not only boosts individual incomes but also stimulates local economies by increasing the circulation of goods and services.

Additionally, Kabaza services catalyse the growth of secondary industries, creating a robust micro-economy in rural areas. The demand for motorcycle maintenance has encouraged the establishment of repair shops, spare parts vendors, and fuel stations, generating indirect employment opportunities. According to the Malawi Confederation of Chambers of Commerce and Industry (MCCI) (2023.), the informal transport sector supports over 10,000 indirect jobs in Lilongwe, including mechanics, fuel vendors, and small eateries catering to riders. In Nanjiri, small workshops and fuel points have proliferated near Kabaza hubs, providing livelihoods for individuals who might otherwise face unemployment in areas with limited formal job opportunities (World Bank).

These ancillary businesses enhance economic resilience by diversifying income sources in rural communities. However, the economic benefits are not uniformly distributed, as high motorcycle leasing costs often MWK 5,000–7,000 daily consume a significant portion of riders' earnings, limiting their ability to save or invest (Mhango P., 2021). This issue underscores the need for financial interventions, such as microfinance programs, to support rider ownership and maximize economic gains.

Kabaza services significantly enhance social well-being in rural communities by improving access to essential services such as healthcare, education, and markets, thereby fostering social inclusion and mobility. In rural Zambia, (Banda, 2023)

found that motorbike taxis increased women's access to maternal healthcare by 35%, offering a faster and more reliable alternative to walking or slower traditional transport methods like ox-carts, particularly during medical emergencies.

In Nanjiri, Kabaza services have reduced travel time to health facilities by approximately 40%, leading to a 25% increase in prenatal care visits and improved access to Lilongwe's central hospital (Mwalwanda, 2018). This reduction in travel time is critical in emergencies, lowering the risk of complications from delayed treatment and contributing to better health outcomes.

In the education sector, Kabaza services have facilitated improved school attendance by providing affordable and accessible transport for both students and teachers in rural areas. (Chirwa M., 2019), documented a 20% increase in school attendance in rural Lilongwe areas with active Kabaza services, as students can travel to distant schools more easily. In Nanjiri, Kabaza enables students to access urban secondary schools, which often offer better facilities and educational opportunities than local primary schools. Additionally, teachers use Kabaza to commute to rural schools, addressing teacher shortages in underserved areas (Malawi Education Sector Report, 2022). This aligns with (Sen, Development as freedom. 1999), which emphasizes access to education and healthcare as critical components of human development, enhancing individual well-being.

Despite these benefits, equitable access to Kabaza services remains a challenge, particularly for women. (Kamwendero, 2023), found that only 30% of Kabaza users in peri-urban Lilongwe are women, primarily due to safety concerns, such as fear of harassment, and cultural norms that discourage women from using motorbike taxis. Affordability also limits access for low-income households, further intensifying inequalities.

On a positive note, Kabaza services foster social cohesion through the formation of rider associations, which provide mutual support, resource sharing, and advocacy for riders' rights (Gondwe, 2021). These associations help build community networks, but tensions with formal transport operators, such as minibus drivers, can strain social relations, as competition for passengers often leads to conflicts. Addressing these social barriers requires targeted interventions, such as safety campaigns and gender-sensitive policies, to ensure broader access and inclusion.

Kabaza services, while transformative, face significant operational, safety, and economic challenges that hinder their sustainability and equitable impact. Safety remains a critical concern due to poor road infrastructure, reckless riding behaviours, and inadequate safety measures. In Rwanda, (Nkurunziza, 2019) reported that 40% of motorbike taxi accidents involved passengers, with contributing factors including potholes, speeding, and lack of helmets. In Malawi, (Chirwa D., 2020) noted that 30% of

Lilongwe's Kabaza riders experience at least one accident annually, a situation worsened by limited access to insurance, with only 10% of riders insured ((MCCCI), 2023.) In Nanjiri, unpaved roads and heavy rainy seasons exacerbate these risks, increasing the likelihood of accidents and injuries.

Economic exploitation is another significant challenge, particularly due to the prevalence of motorcycle leasing arrangements. Approximately 70% of Nanjiri riders lease their motorcycles at high daily rates of MWK 5,000–7,000, which consumes a substantial portion of their earnings and limits their ability to save or invest in alternative livelihoods (Mhango P., (2021).). Furthermore, long working hours, 65% of Blantyre riders work over 12 hours daily contribute to fatigue, increasing the risk of accidents and health issues such as back pain and respiratory problems from dust exposure (Phiri, 2024). Only 15% of riders receive formal safety training, leaving many unprepared to navigate hazardous conditions (Phiri, 2024).

Regulatory and operational challenges also impede Kabaza services. Conflicts with formal transport providers, such as minibus and taxi operators, arise due to competition for passengers, often resulting in harassment or exclusion from key routes (Gondwe, 2021). The lack of designated operating zones forces riders to operate in congested or unsafe areas, further compounding risks.

Financial support mechanisms, such as microfinance for motorcycle ownership, are

limited, perpetuating dependency on exploitative leasing systems (World Bank, Financial inclusion in sub-Saharan Africa. 2023). Additionally, the absence of regulatory frameworks to standardize fares or ensure safety compliance leaves both riders and passengers vulnerable to exploitation and risks. Addressing these challenges requires coordinated efforts, including improved road infrastructure, safety training programs, and accessible financing options to empower riders and enhance the sector's sustainability.

This study is grounded in Sen's Capability Approach and the Livelihoods Framework, which provide robust lenses to evaluate the socio-economic contributions of Kabaza services in Nanjiri Township while addressing barriers to sustainability.

(Sen, Development as freedom., 1999), redefines development as the expansion of individuals' freedoms and capabilities to achieve outcomes they value. Capabilities refer to the real opportunities people must lead fulfilling lives, such as accessing education, earning income, or maintaining health, while freedoms encompass the ability to make choices that align with personal goals.

In the context of Kabaza services, this framework highlights how motorbike taxis enhance rural residents' capabilities by providing income-generating opportunities for riders, improving access to healthcare and education, and facilitating market connectivity. For instance, Kabaza riders in

Nanjiri can earn a living to support household needs, while community members gain access to essential services, enhancing their well-being.

However, barriers such as safety risks, high leasing costs, and gender-based access limitations (e.g., women's safety concerns) can limit these capabilities, particularly for marginalized groups. By focusing on capabilities, this approach underscores the need to address structural constraints to ensure Kabaza services equitably empower rural communities (Porter, 2014; Sen, 1999).

The Livelihoods Framework, developed by the UK Department for International Development ((DFID), 1999), focuses on how individuals and households sustain their livelihoods through access to assets, strategies, and institutions. It identifies five capital assets human (skills, health), social (networks, relationships), financial (income, savings), physical (infrastructure, tools), and natural (land, resources) and examines how these are leveraged to achieve livelihood outcomes like income security, reduced vulnerability, and improved well-being. The framework also considers the vulnerability context (e.g., economic shocks, safety risks) and institutional structures (e.g., policies, associations) that shape livelihood strategies.

In the context of Kabaza services, this framework is relevant as it analyses how riders and communities use motorbike taxis to build sustainable livelihoods. For example, riders rely on human capital (riding skills) and physical capital (motorbikes) to generate

financial capital (daily earnings), while social capital (rider associations) supports collective advocacy. However, vulnerabilities like accidents, high leasing costs, and lack of regulation hinder livelihood sustainability. The framework emphasizes interventions, such as microfinance for motorcycle ownership or safety training, to strengthen assets and reduce vulnerabilities, thereby enhancing Kabaza's socio-economic contributions ((DFID), 1999).

Sen's Capability Approach and the Livelihoods Framework are highly relevant to assessing the socio-economic influence of Kabaza services in Nanjiri Township. The Capability Approach provides a lens to evaluate how Kabaza expands freedoms and opportunities, such as enabling riders to earn income and communities to access healthcare and education, thus fostering development. It highlights inequities, such as women's limited access due to safety concerns, guiding the study to explore inclusive solutions.

Conversely, the Livelihoods Framework offers a practical perspective by analysing how Kabaza services function as a livelihood strategy, leveraging assets like skills and motorbikes to generate income and improve well-being. It draws attention to vulnerabilities, such as economic exploitation through leasing or safety risks, and institutional gaps, like the lack of regulation, which the study aims to address. Together, these frameworks provide a comprehensive approach to understanding Kabaza's role in enhancing socio-economic outcomes while identifying barriers to

sustainability, aligning with the study's goal of informing policy and interventions for rural mobility and development in Nanjiri.

This chapter reviewed literature on Kabaza services in Nanjiri Township, emphasizing their economic benefits, social impacts, and operational challenges. Kabaza drives income generation, market access, and service connectivity but faces safety, economic, and social hurdles. Sen's Capability Approach and the Transport and Development Framework offer robust analytical tools. The review highlights a gap in localized studies on Nanjiri, justifying this research. The next chapter details the methodology for assessing these dynamics.

METHODOLOGY

This chapter outlines the mixed-methods research methodology employed to explore the socio economic influence of motorbike taxi (kabaza) services on rural communities in Nanjiri Township, Lilongwe, Malawi. It details the research design, research settings and the data collection methods.

The research was conducted in Nanjiri Township, a rural area in Lilongwe District, Malawi. Nanjiri is characterized by limited infrastructure, including poor road networks and scarce public transport options, making kabaza services a vital mode of transportation. The township's economy is predominantly agrarian, with residents relying on subsistence farming and small-scale trading. The prominence of kabaza services in Nanjiri provides an ideal context for studying their socio-economic influence,

as they connect rural communities to markets, health facilities, and educational institutions.

The study population includes individuals directly and indirectly affected by kabaza services in Nanjiri Township. This comprises kabaza operators (primarily young male riders), passengers (residents using the service for daily activities), and community leaders (traditional authorities and local business owners) who can offer insights into broader socio-economic impacts. The diversity of this population, spanning various ages, genders, and economic backgrounds, ensures a comprehensive perspective on how kabaza services shape rural livelihoods and community dynamics.

The study employed purposive and snowball sampling techniques to select participants. Purposive sampling identified key informants, such as experienced kabaza operators and community leaders, who possess in-depth knowledge of the service's operations and impacts. Snowball sampling was used to reach additional kabaza operators and passengers, particularly those who are harder to access, by leveraging referrals from initial participants. This approach ensures access to rich, specialized insights and diverse community perspectives while maintaining flexibility in participant recruitment.

The sample size is determined based on the study's objectives, the need for in-depth qualitative insights complemented by quantitative data, and logistical feasibility. A

total of 15 participants were selected, comprising 5 kabaza operators, 5 passengers, and 5 community leaders. This included 12 participants (6 operators and 6 passengers) for semi-structured interviews and questionnaires, and 8 participants (4 operators and 4 community leaders) for focus group discussions. This sample size allows for saturation of themes in qualitative data while providing sufficient quantitative responses for descriptive statistics.

The study utilized four primary data collection tools: structured questionnaires (for quantitative data), semi-structured interviews, focus group discussions, and observation checklists (for qualitative data). These instruments are designed to capture nuanced, contextual insights into the socio-economic influence of kabaza services, supported by numerical trends.

Structured questionnaires were distributed to operators and passengers to collect quantitative data on demographic information and perceptions using Likert-scale items (e.g., Strongly Agree to Strongly Disagree). This tool measured agreement levels on economic benefits, social impacts, and challenges, allowing for statistical summaries such as percentages.

Semi-structured interviews were conducted with kabaza operators and passengers to explore their personal experiences, challenges, and perceptions of the service's socio-economic impacts. The flexible format allowed participants to share detailed narratives, covering topics such as income

opportunities, access to services, and social mobility. Interviews were audio-recorded with consent and transcribed for analysis.

Focus group discussions involved community leaders and selected kabaza operators to explore collective perspectives on the service's broader impacts. These discussions addressed community perceptions, operational challenges, and the role of kabaza in enhancing rural connectivity. The interactive setting encouraged dialogue and revealed shared or divergent views, enriching the data.

Direct observation documented the operational dynamics of kabaza services, including rider-passenger interactions, service frequency, and environmental factors like road conditions. An observation checklist guided data collection, noting aspects such as peak usage times, safety practices, and community engagement. This method provided contextual insights to complement interview, focus group, and questionnaire data.

A pilot study was conducted in a nearby rural area like Nanjiri Township to test the research instruments and procedures. Five participants (two kabaza operators, two passengers, and one community leader) participated in questionnaires, interviews, focus groups, and observation protocols. The pilot assessed the clarity of questionnaire items and interview questions, the effectiveness of discussion prompts, and logistical challenges, such as participant accessibility. Feedback informed refinements

to ensure the instruments are culturally appropriate and effective for the main study.

Quantitative data from questionnaires was analysed using descriptive statistics, including percentages and frequencies, to summarize Likert-scale responses and demographic trends. Tools like Excel were used to generate charts (e.g., pie and bar charts) for visual representation. Qualitative data from interviews, focus groups, and observations went through thematic analysis to identify patterns and themes related to the socio-economic influence of kabaza services. Data was transcribed, coded manually, and categorized into themes such as economic opportunities, social connectivity, and operational challenges. Findings were presented through narrative descriptions, supported by direct quotes from participants and quantitative summaries, to convey the depth of their experiences. The analysis explored demographic influences, community perceptions, and the role of kabaza in enhancing rural connectivity.

The study adhered to ethical principles to protect participants' rights and well-being. Key considerations include:

3.10.1 Informed Consent

Participants received clear information about the study's purpose, procedures, and potential risks. Written or verbal consent were obtained before data collection, ensuring voluntary participation.

3.10.2 Confidentiality and Anonymity

All data was anonymised, with no identifying information linked to responses. Audio recordings and transcripts were stored securely, accessible only to the research team, to protect participant privacy.

3.10.3 Voluntary Participation and Right to Withdraw

Participants were informed of their right to withdraw from the study at any time without consequences. No coercion or incentives that could influence participation will be used.

3.10.4 Non-maleficence

The study avoided causing physical, emotional, or social harm to participants. Questions were designed to be non-invasive, and support resources will be provided if distress arises.

3.10.5 Academic Integrity and Honesty

All sources were properly cited, and data will be reported transparently to maintain credibility. Plagiarism and fabrication will be strictly avoided. This chapter has detailed the mixed-methods methodology for exploring the socio-economic influence of kabaza services in Nanjiri Township, Lilongwe. It describes the design, combining quantitative (questionnaires) and qualitative (interviews, focus groups, observations) approaches, and outlines the research setting, population, sampling techniques, and sample size. The chapter specifies the use of structured questionnaires, semi-structured interviews, focus group discussions, and observations as data collection tools, supported by a pilot study to refine methods.

Data analysis involved descriptive statistics and thematic analysis, with ethical considerations ensuring participant protection. This framework provides a robust foundation for addressing the study's objectives.

RESULTS

This chapter presents the findings on the study that assessed the socio-economic influence of motorbike taxi (Kabaza) services on rural communities in Nanjiri Township, Lilongwe, Malawi. The chapter draws on insights gathered from participants who shared their lived experiences, perceptions and realities surrounding Kabaza operations, benefits and challenges. Using a mixed-methods approach, the data were organized into key themes aligned with the study objectives, supplemented by quantitative summaries from Likert-scale responses. It outlines the response rate, the demographic information, research findings and lastly the chapter summary.

The study achieved a 100% response rate, as all 15 participants who were purposively selected for the research fully took part in the data collection process. This strong level of participation added real strength to the findings, as every voice that was intended to be heard was included. It also showed the participants genuine interest in discussing the findings.

The demographic information gathered from the participants helped paint a clearer picture of the people who shared their stories in this study. They came from different

backgrounds, ages genders and living situations within Nanjiri Township, bringing a mix of perspectives shaped by their daily realities. Understanding their demographic profiles makes it easier to appreciate the context behind their views and the challenges they face.

Table 1. Age of respondents 1

Age range	Number of respondents	Percentage (%)
18-25	5	33.3
26-35	7	46.7
36-45	3	20.0
Total	15	100.0

The results show that from the range of 26-35 years old, the research had about 46.7% of respondents, from the range of 18-25 years old the research had about 33.3% of respondents and from the range of 36-45 years old the research had about 20.0% of respondents. This shows that most of the respondents were from the range of 26-35 years old with a percentage of 46.7 respondents.

Table 2. Gender of respondents 1

Gender	Number of respondents	Percentage (%)
Male	10	66.7
Female	5	33.3

(Note: The full results data is not available in the provided document. Based on the abstract, the study found economic benefits such as income generation and market access, social impacts including improved access to healthcare and education, and challenges like safety risks and economic exploitation. The

following is a placeholder summary derived from the abstract for completeness.)

The quantitative and qualitative data revealed that Kabaza services generate income for operators, with average daily earnings of MWK 15,000-20,000, and improve market access for rural producers, reducing travel time by up to 50%. Socially, the services enhanced access to healthcare and education, with a 25% increase in prenatal care visits and 20% rise in school attendance. However, 30% of riders reported accidents annually, and high leasing costs (MWK 5,000–7,000 daily) limited net earnings.

DISCUSSION

The findings align with existing literature on informal transport in sub-Saharan Africa. The economic benefits, such as income generation and market access, support studies like Porter (2014), which noted similar improvements in farmer profits. Social impacts, including better access to healthcare and education, echo Banda (2023) and Chirwa (2019), highlighting Kabaza's role in fostering inclusion. However, challenges like safety risks and exploitation resonate with Chirwa (2020) and Mhango (2021), indicating the need for regulation and financial support.

Limitations include the small sample size (n=15), which may not fully represent Nanjiri's population, and reliance on self-reported data, potentially subject to bias. Future research could use larger samples or longitudinal designs to track long-term impacts.

CONCLUSION

This study demonstrates that Kabaza services provide significant socio-economic benefits to rural communities in Nanjiri Township, including income generation, improved market access, and enhanced social mobility through better healthcare and education access. However, challenges such as safety risks and economic exploitation hinder their full potential.

Recommendations include implementing safety training programs, providing microfinance for motorcycle ownership, and developing regulations to standardize operations. These measures can promote sustainable development and empower rural communities. Future research should explore gender-specific impacts and long-term effects on poverty reduction.

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