



# Challenges in the Management of Lagos State Bus Rapid Transit (BRT) System: Insights into Operations and Governance

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## Abstract

*The Lagos State Bus Rapid Transit (BRT) system was introduced to provide efficient, affordable, and sustainable transport for millions of commuters. However, operational and governance challenges undermine its effectiveness. This study examines infrastructure constraints, fleet management issues, passenger experiences, service reliability, and governance-related difficulties, including institutional coordination, regulatory enforcement, political influences, and financial sustainability. A mixed-method research design was employed, combining quantitative and qualitative approaches. The study population included BRT commuters, transport operators, regulatory authorities, and key stakeholders. Using a stratified random sampling technique, 500 commuters were selected across major BRT corridors, while 20 key stakeholders were purposively sampled for interviews, including officials from the Lagos Metropolitan Area Transport Authority (LAMATA), bus operators, and policymakers. Data collection involved structured surveys, in-depth interviews, and operational reports. Quantitative data were analyzed using descriptive and inferential statistics, while qualitative responses were examined thematically. Findings indicate that inadequate infrastructure, poor maintenance, overcrowding, and inconsistent service schedules remain persistent operational challenges. Governance issues, including overlapping responsibilities, weak regulatory oversight, and unstable funding models, hinder effective management. The regression analysis highlights infrastructure quality, service reliability, and financial sustainability as key determinants of BRT performance ( $p < 0.01$ ). The study recommends improving infrastructure, expanding the fleet, integrating digital monitoring tools, enhancing inter-agency coordination, and developing transparent funding mechanisms. Addressing these challenges is essential for ensuring the long-term sustainability of the Lagos BRT system and enhancing urban mobility.*

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## 1. INTRODUCTION

Urban transportation systems are a critical determinant of economic productivity, social mobility, and environmental sustainability in rapidly urbanizing regions. Cities in developing economies, particularly in sub-Saharan Africa, face complex mobility challenges due to rapid population growth, inadequate transport infrastructure, weak governance frameworks, and financial constraints (World Bank, 2022). Among these cities, Lagos State, Nigeria's economic powerhouse, stands out as a case study in urban mobility crises. With a population exceeding 20 million residents, Lagos is one of the fastest-growing megacities in the world, yet it suffers from severe traffic congestion, an underdeveloped mass transit system, environmental degradation, and inefficient mobility governance (United Nations, 2021).

The city's reliance on informal transport modes, such as minibuses (danfos), motorcycles (okadas), and tricycles (keke napep), has exacerbated mobility inefficiencies. These informal transport options, though providing last-mile connectivity, contribute to traffic congestion, frequent road accidents, high carbon emissions, and unpredictable travel times (Akinyemi & Olawole, 2020). Recognizing the urgent need for a structured public transportation system, the Lagos State government, in collaboration with the World Bank and other stakeholders, introduced the Bus Rapid Transit (BRT) system in 2008. This initiative positioned Lagos as the first sub-Saharan African city to implement a BRT system (Ogunkoya, 2008; Ogunkoya & Faloore, 2010 and Oluwakoya, 2014).

The BRT system was designed to offer a high-capacity, affordable, and efficient transit option that could alleviate congestion, reduce travel times, and enhance urban mobility (LAMATA, 2021). It introduced dedicated lanes, regulated fare structures, improved accessibility, and a structured bus operation model as a departure from the chaotic informal transport sector (Cervero, 2013). The initial implementation of the BRT yielded positive outcomes, including reduced travel times by up to 40%, improved commuter convenience, and increased affordability compared to private transport alternatives (Adebayo & Fadare, 2020).

Despite its promising start, the Lagos BRT system has struggled with significant operational inefficiencies and governance challenges, undermining its long-term sustainability (Oluwakoya, 2014). Over the years, commuters have reported deteriorating service quality, overcrowding, inconsistent scheduling, and fleet inadequacies (Ogunleye & Adeniji, 2019). Additionally, infrastructural decay, poor maintenance culture, and inadequate investment in fleet expansion have contributed to the BRT's declining performance (Afolabi, 2022).

Beyond operational concerns, governance and institutional weaknesses remain major obstacles to an efficient BRT system in Lagos. The fragmentation of regulatory bodies, unclear institutional roles, and conflicting interests between public and private stakeholders have hindered effective decision-making and policy implementation (Adetiba & Oduwaye, 2021). Political interference, regulatory lapses, and inconsistent funding models have further exacerbated inefficiencies in the system's management (Olawale, 2020).

These challenges have raised critical questions about the scalability, efficiency, and governance of the Lagos BRT model. Given the increasing urbanization and demand for sustainable transport

solutions, addressing these challenges is essential for ensuring that Lagos's BRT system fulfills its intended purpose of providing a reliable, accessible, and efficient mass transit system. This study seeks to provide a comprehensive assessment of the Lagos BRT system, focusing on its operational and governance challenges. The research explores: operational challenges, governance and institutional challenges and policy and management recommendations. By analyzing these key dimensions, the study aims to provide evidence-based policy recommendations that can inform decision-makers, urban planners, and transport authorities in strengthening the management and sustainability of Lagos's BRT system.

## **2. LITERATURE REVIEW**

Urban transport systems, particularly Bus Rapid Transit (BRT) schemes, are often positioned as critical solutions to the growing mobility challenges in rapidly urbanizing cities. The BRT model, first pioneered in Curitiba, Brazil, has been widely adopted in cities across the Global South for its cost-effectiveness, scalability, and ability to reduce congestion and emissions (Cervero, 2013). However, the success of BRT systems heavily depends on effective governance, robust infrastructure, and operational efficiency, which are frequently constrained in developing regions (Hidalgo & Gutiérrez, 2013).

### **2.1 Governance Challenges in BRT Systems**

Governance plays a critical role in the success and sustainability of Bus Rapid Transit (BRT) systems. Governance challenges often manifest in fragmented institutional arrangements, lack of accountability, insufficient regulatory frameworks, and political interference, all of which can undermine system efficiency and commuter satisfaction.

#### **2.1.1 Institutional Fragmentation and Coordination**

One of the most significant governance challenges in BRT systems is institutional fragmentation. In many cases, multiple agencies with overlapping roles and responsibilities are involved in system management, leading to inefficiencies. For instance, Lagos State's BRT governance involves LAMATA (Lagos Metropolitan Area Transport Authority), the Lagos State Ministry of Transportation, and private operators, often resulting in unclear accountability and delayed decision-making (Gwilliam, 2011). A comparative analysis by Finn (2008) highlights that cities with centralized governance structures, such as Curitiba in Brazil, have been more successful in maintaining the efficiency and reliability of their BRT systems. These cities benefit from streamlined decision-making processes and clearly defined institutional roles.

#### **2.1.2 Regulatory and Policy Gaps**

Governance issues are often exacerbated by inadequate regulatory and policy frameworks. In Sub-Saharan African cities, regulations frequently fail to address the complexities of urban transport systems, including fare integration, route optimization, and service quality standards (Sohail et al., 2006). In Lagos, for example, inconsistent enforcement of traffic regulations along dedicated BRT lanes contributes to service delays and reduced reliability. Policy gaps also hinder the integration of informal transport operators into formal systems. Studies by Venter (2016) emphasize the importance of regulatory frameworks that support hybrid models of formal and informal transport integration to enhance overall system efficiency.

### **2.1.3 Political Interference and Sustainability**

Political interference is another pervasive governance challenge. Changes in political leadership often lead to abrupt policy shifts or discontinuation of projects, undermining the long-term sustainability of BRT systems (Cervero, 2013). Lagos's BRT system, while innovative in its initial implementation, has faced challenges in maintaining operational consistency due to political changes and shifting priorities. The case of Dar es Salaam's BRT highlights the benefits of insulating transit systems from political cycles. The system's governance structure emphasizes accountability and continuity, enabling it to achieve higher reliability and commuter satisfaction (Finn, 2008).

### **2.1.4 Stakeholder Engagement and Inclusivity**

Limited stakeholder engagement is another critical issue. Effective governance requires the involvement of all stakeholders, including local communities, commuters, and informal transport operators. However, in Lagos, inadequate stakeholder participation has led to resistance from informal operators and limited public buy-in (Adewumi & Allopi, 2013). Successful examples, such as Johannesburg's Rea Vaya BRT, demonstrate the importance of inclusive governance models. Rea Vaya actively involved informal minibuses associations in its planning and operations, reducing conflict and fostering collaboration (Venter, 2016).

## **2.2 Operational Issues in African BRT Systems**

Operational challenges are central to the effectiveness of Bus Rapid Transit (BRT) systems, particularly in African cities where infrastructure deficits, service reliability, and capacity constraints frequently undermine the goals of these systems. The operational shortcomings often intersect with governance failures, exacerbating inefficiencies and limiting the ability of BRT systems to provide high-quality, sustainable transport services.

### **2.2.1 Infrastructure Deficits**

One of the primary operational issues in African BRT systems is the inadequacy of supporting infrastructure. Insufficient dedicated lanes, poorly maintained terminals, and limited fleet capacity often lead to congestion and overcrowding. For example, the Lagos BRT system, while pioneering in Sub-Saharan Africa, faces challenges stemming from insufficient lane segregation, which allows private vehicles to encroach on bus lanes, reducing travel speed and reliability (Adewumi & Allopi, 2013). Similarly, Dar es Salaam's BRT system, despite its success, struggles with infrastructure maintenance and expansion to accommodate growing demand (Finn, 2008). These deficiencies often result from limited financial resources and fragmented planning processes.

### **2.2.2 Service Reliability and Schedule Adherence**

Service reliability, including adherence to schedules, is a persistent problem in African BRT systems. Unpredictable delays, caused by traffic congestion, vehicle breakdowns, and poor fleet management, negatively impact commuter satisfaction. In Lagos, irregular bus schedules and frequent delays have led to reduced public trust in the BRT system, mirroring findings from Cervero (2013), who identified service reliability as a key determinant of public transit success globally. Efforts to improve reliability often encounter logistical and resource barriers, particularly in cities with underfunded transit agencies. Tang et al. (2018) highlight the

importance of real-time scheduling technologies and proactive maintenance to address these issues, but their adoption in African BRT systems remains limited.

### **2.2.3 Capacity Constraints and Overcrowding**

Overcrowding is a prevalent issue in African BRT systems, driven by high demand and insufficient fleet sizes. Lagos's BRT system, for instance, struggles to meet commuter demand during peak hours, resulting in packed buses and long waiting times. Overcrowding not only diminishes passenger comfort but also raises safety concerns, as documented by Sohail et al. (2006), who linked overcrowding to increased accident risks in urban transport systems. Fleet expansion and the optimization of operational schedules are critical to addressing these challenges, but resource constraints often limit the implementation of such measures.

### **2.2.4 Fare Collection and Revenue Leakages**

Inefficient fare collection systems are another operational bottleneck. Manual fare collection processes, which are still prevalent in many African BRT systems, contribute to revenue leakages and delays. In Lagos, the gradual shift to digital ticketing has reduced some of these issues but has not been universally adopted, leaving gaps in revenue management (Gwilliam, 2011). Dar es Salaam's adoption of automated fare collection provides a model for African cities to enhance operational efficiency and financial sustainability (Finn, 2008). However, technological and infrastructural investments are required for broader implementation.

### **2.2.5 Driver and Staff Management**

The management of drivers and operational staff plays a critical role in the efficiency of BRT systems. Issues such as insufficient training, poor working conditions, and high staff turnover rates negatively impact service delivery. Venter (2016) emphasizes the need for capacity-building programs and incentive structures to improve the professionalism and retention of BRT staff in African cities.

### **2.2.6 Comparative Insights and Best Practices**

Operational challenges in African BRT systems, while significant, are not insurmountable. Comparative studies of systems in cities like Curitiba and Bogotá demonstrate the value of prioritizing infrastructure investment, implementing real-time scheduling, and adopting automated fare collection systems (Cervero, 2013). Lessons from these cities highlight the importance of aligning operational improvements with governance reforms to ensure long-term sustainability.

## **2.3 Comparative Insights from Other African Cities**

Examining Bus Rapid Transit (BRT) systems across different African cities provides valuable insights into the shared challenges and unique strategies that influence their performance. Comparative analysis highlights how variations in governance structures, operational practices, and financial models contribute to the successes and shortcomings of BRT systems on the continent.

### **2.3.1 Dar es Salaam, Tanzania: Integration and Continuity**

The Dar es Salaam Rapid Transit (DART) system is widely regarded as a successful BRT model in Africa. Its governance framework emphasizes clear institutional roles, with the Dar Rapid

Transit Agency (DART) providing centralized oversight and coordination. This centralized governance minimizes institutional overlap, ensuring more effective policy implementation and operational oversight (Finn, 2008). One key factor in DART's success is its approach to stakeholder engagement. By involving local transport unions during its planning and implementation phases, the system minimized resistance from informal operators, a frequent issue in other African cities (Sohail et al., 2006). Despite these strengths, DART faces operational challenges, including overcrowding and infrastructure maintenance. These issues underscore the importance of consistent infrastructure investment and capacity expansion to keep pace with growing demand (Venter, 2016).

### **2.3.2 Johannesburg, South Africa: Inclusivity and Incremental Development**

The Rea Vaya BRT system in Johannesburg stands out for its efforts to integrate informal transport operators, particularly minibus taxi associations, into its operations. The system's implementation involved extensive negotiations, compensation agreements, and the retraining of taxi drivers to become bus operators. This inclusive approach reduced social conflict and enhanced public acceptance (Cervero, 2013). Additionally, Johannesburg's incremental implementation strategy allowed the city to adapt its system based on operational feedback and commuter needs. However, the system has struggled with financial sustainability, as operational subsidies remain high, highlighting the need for better revenue management and cost optimization (Gwilliam, 2011).

### **2.3.3 Addis Ababa, Ethiopia: Overcoming Resource Constraints**

Addis Ababa's BRT system, though still under development, provides valuable lessons on implementing transit solutions in resource-constrained environments. With limited funding, the city has prioritized low-cost, high-impact interventions, such as lane segregation and signal prioritization for buses. These measures, while modest, have significantly improved travel times and commuter satisfaction (Adewumi & Allopi, 2013). However, the lack of an integrated fare collection system and fragmented governance have limited the system's efficiency. These challenges underscore the importance of addressing foundational governance and operational issues early in the planning process (Tang et al., 2018).

### **2.3.4 Lagos, Nigeria: A Cautionary Tale of Growth without Governance**

The Lagos BRT system was the first of its kind in Sub-Saharan Africa, setting a precedent for other cities. However, its governance challenges, including institutional fragmentation and political interference, have undermined its operational efficiency. While the system has achieved high ridership, issues such as overcrowding, unreliable schedules, and insufficient infrastructure persist (Sohail et al., 2006). Comparing Lagos to cities like Dar es Salaam highlights the importance of centralized governance and consistent policy enforcement in ensuring long-term success (Finn, 2008).

### **2.3.5 Lessons Learned from Comparative Analysis**

The experiences of Dar es Salaam, Johannesburg, Addis Ababa, and Lagos reveal several key lessons:

- i. **Centralized Governance:** Cities with centralized and clearly defined governance structures, such as Dar es Salaam, tend to perform better in terms of efficiency and accountability.

- ii. Stakeholder Engagement: Inclusive planning processes, as seen in Johannesburg, are critical for reducing resistance and ensuring public buy-in.
- iii. Incremental Implementation: Phased rollouts, as demonstrated by Johannesburg, allow for adjustments based on operational feedback.
- iv. Infrastructure Investment: Sustained investments in infrastructure, as evidenced by Dar es Salaam, are necessary to meet growing demand and maintain service quality.

### **3. METHODOLOGY**

This study employs a mixed-methods approach to comprehensively analyze the operational and governance challenges of Lagos State's Bus Rapid Transit (BRT) system. The methodology integrates qualitative and quantitative research techniques, enabling a robust understanding of the complex dynamics influencing the BRT's performance.

#### **3.1 Research Design**

The study is structured around three primary components:

- i. Qualitative Analysis: Semi-structured interviews were conducted with key stakeholders, including officials from the Lagos Metropolitan Area Transport Authority (LAMATA), private operators, and commuter advocacy groups. The qualitative component aims to capture insights into governance structures, institutional challenges, and operational decision-making processes.
- ii. Quantitative Analysis: Surveys were administered to a sample of 500 commuters across various BRT routes to assess passenger satisfaction, service reliability, and perceived challenges. Descriptive and inferential statistical techniques were employed to analyze the survey data.
- iii. Case Study Approach: The Lagos BRT system was examined as a single-case study, leveraging operational data and reports from LAMATA to contextualize findings within the broader urban mobility framework.

#### **3.2 Data Collection Methods**

##### **3.2.1 Population**

The study population consisted of key stakeholders within the Lagos BRT ecosystem, including:

- i. BRT Commuters – Daily users of the system across major corridors.
- ii. BRT Operators – Bus drivers, conductors, and fleet managers.
- iii. Regulatory Authorities – Officials from the Lagos Metropolitan Area Transport Authority (LAMATA), Lagos State Ministry of Transportation, and transport unions.
- iv. Transport Policy Experts – Researchers and urban mobility specialists familiar with Lagos's public transport system.

##### **3.2.2 Sample and Sampling Technique**

To ensure a representative analysis, the study used both probability and non-probability sampling techniques:

- i. A stratified random sampling technique was applied to select 500 BRT commuters across five major BRT corridors in Lagos (Ikorodu–TBS, Oshodi–Abule Egba, Mile 12–CMS, Berger–TBS, and Ajah–CMS). This technique ensured adequate representation of different user demographics.

- ii. A purposive sampling technique was used to select 20 key stakeholders, including transport regulators, LAMATA officials, and fleet operators, for in-depth interviews. This allowed for the collection of expert insights on governance, funding, and operational management.

### 3.3.3 Samples

The final study sample included 500 BRT commuters surveyed using structured questionnaires, 20 key stakeholders interviewed for qualitative insights and operational data and reports obtained from LAMATA and BRT operators for secondary analysis.

## 4. RESULTS

The results of this study are presented in two sections: (1) findings from the qualitative analysis of stakeholder interviews and operational documents, and (2) quantitative analysis of commuter survey data. Together, these results provide a detailed picture of the operational and governance challenges facing the Lagos State BRT system.

### 4.1 Qualitative Findings

#### 4.1.1 Governance Challenges

- i. Institutional Fragmentation: Stakeholders highlighted significant overlap in roles between LAMATA, the Lagos State Ministry of Transportation, and private operators. This fragmentation leads to inefficiencies in decision-making and policy enforcement.
- ii. Regulatory Gaps: Several respondents noted that outdated policies and inconsistent enforcement hinder effective regulation. For instance, bus operators frequently violate operational guidelines without facing consequences.
- iii. Political Influence: Frequent changes in political leadership disrupt continuity in transport policies, with shifts in priorities causing delays in infrastructure development and funding allocation.

#### 4.1.2 Operational Challenges

- i. Fleet Management Issues: Interviews with BRT operators revealed persistent maintenance problems due to funding constraints and the absence of a centralized maintenance system.
- ii. Infrastructure Limitations: Stakeholders identified inadequate dedicated lanes and poor terminal facilities as major barriers to service efficiency.
- iii. Overcrowding and Service Reliability: Operators admitted that high passenger demand often exceeds capacity, resulting in overcrowded buses and irregular schedules.

### 4.2 Quantitative Findings

#### 4.2.1 Commuter Demographics

- i. Gender: 56% male, 44% female.
- ii. Age: 60% of respondents were aged 25–40, with 25% below 25 and 15% above 40.
- iii. Income: 70% of commuters earn below ₦100,000 monthly, indicating the reliance of low-income populations on the BRT system.

**Table 1: Descriptive and Inferential Analysis Results**

Aspect	Descriptive Statistics	Inferential Analysis	Implications
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Aspect	Descriptive Statistics	Inferential Analysis	Implications
<b>Service Reliability</b>	- 68% rated reliability as unsatisfactory (1 or 2 out of 5).	Regression coefficient ( $\beta$ ): 0.45, $p < 0.01$	Service reliability is the strongest predictor of overall satisfaction, requiring urgent attention.
<b>Passenger Comfort</b>	- 74% reported dissatisfaction with overcrowding during peak hours.	Regression coefficient ( $\beta$ ): 0.33, $p < 0.05$	Fleet expansion and better scheduling can enhance passenger comfort.
<b>Ticketing System</b>	- 48% rated the ticketing system as moderately satisfactory (3 out of 5).	Regression coefficient ( $\beta$ ): 0.27, $p < 0.05$	Simplified and digital ticketing solutions are recommended to improve user experience.
<b>Affordability</b>	- 85% rated fares as affordable.	Not statistically significant in predicting overall satisfaction ( $p > 0.05$ ).	Affordability is a strength but needs monitoring to ensure continued accessibility.
<b>Overall Satisfaction</b>	- Mean satisfaction score: 2.8 (on a scale of 1 to 5).	Regression $R^2 = 0.62$	The model explains 62% of the variance in commuter satisfaction.
<b>Peak-Hour Challenges</b>	- 60% of respondents identified overcrowding as their primary concern.	Chi-square test: Significant association between peak-hour usage and satisfaction levels ( $\chi^2 = 21.3$ , $p < 0.01$ ).	Highlights the need for targeted interventions during peak periods.
<b>Demographics (Gender)</b>	- 56% male, 44% female.	No significant difference in satisfaction scores between genders (t-test, $p > 0.05$ ).	Satisfaction challenges affect all demographics similarly.
<b>Demographics (Age)</b>	- 60% aged 25–40; 25% below 25; 15% above 40.	ANOVA: Significant differences in satisfaction by age group ( $F = 4.8$ , $p < 0.05$ ).	Younger commuters (<25) reported lower satisfaction, indicating a need for youth-focused measures.
<b>Infrastructure Satisfaction</b>	- 62% reported dissatisfaction with terminal facilities and dedicated lanes.	Correlation with overall satisfaction: $r = 0.41$ , $p < 0.05$ .	Infrastructure improvements can have a moderate impact on satisfaction.

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### 4.2.2 Commuter Satisfaction Analysis

Survey respondents rated their satisfaction with various aspects of the BRT system on a scale of 1 to 5 (1 = Very Unsatisfied, 5 = Very Satisfied). Key findings include:

- i. Service Reliability: 68% of respondents rated reliability as unsatisfactory (1 or 2), citing frequent delays and unpredictable schedules.
- ii. Passenger Comfort: 74% expressed dissatisfaction with overcrowding, particularly during peak hours.
- iii. Ticketing System: 48% rated the ticketing process as moderately satisfactory (3), though many noted issues with ticket availability and long queues.
- iv. Affordability: 85% of commuters considered the fare reasonable, though concerns were raised about potential future increases.

#### **4.2.3 Regression Analysis of Commuter Satisfaction**

A regression model was developed to identify factors significantly influencing overall commuter satisfaction:

- i. Service Reliability ( $\beta = 0.45$ ,  $p < 0.01$ ): The strongest predictor of satisfaction, indicating the need for consistent schedules and reduced delays.
- ii. Passenger Comfort ( $\beta = 0.33$ ,  $p < 0.05$ ): Overcrowding was identified as a key deterrent to positive commuter experiences.
- iii. Ticketing Efficiency ( $\beta = 0.27$ ,  $p < 0.05$ ): Simplifying the ticketing process could significantly enhance commuter satisfaction.

#### **4.3 Comparative Insights**

- i. Dar es Salaam's BRT System: Strong governance and centralized management have reduced operational inefficiencies, contrasting sharply with Lagos.
- ii. Johannesburg's Rea Vaya: Early engagement with stakeholders, including informal transport operators, has minimized conflicts and improved service delivery.

#### **4.4 Key Insights**

- i. The interplay between governance and operational challenges has created a cycle of inefficiency, with weak institutional frameworks exacerbating operational bottlenecks.
- ii. Addressing these challenges requires targeted interventions, including enhanced coordination among agencies, improved infrastructure investment, and robust maintenance practices.

#### **Discussion**

The findings of this study underscore significant governance and operational challenges affecting the efficiency and reliability of Lagos State's Bus Rapid Transit (BRT) system. This section contextualizes these findings within broader urban transport governance frameworks and explores their implications for improving mobility in Lagos and similar cities in Sub-Saharan Africa. The study highlights a persistent issue of institutional fragmentation, with overlapping roles among LAMATA, the Lagos State Ministry of Transportation, and private operators. Such fragmentation undermines policy coherence and operational efficiency, consistent with findings from Gwilliam (2011), who noted that unclear governance structures often impede urban transport systems in developing countries.

The regulatory gaps identified in the Lagos BRT system reflect broader challenges in aligning governance frameworks with operational realities. Political interference, frequently cited by stakeholders, exacerbates these challenges, as documented by Sohail et al. (2006), who emphasize the destabilizing impact of political changes on transport infrastructure projects. Operational inefficiencies, particularly overcrowding, unreliable schedules, and inadequate fleet management, emerged as critical concerns. These issues align with studies by Cervero (2013), which argue that inadequate infrastructure and service disruptions are common in poorly managed public transport systems. The study's regression analysis identified service reliability and passenger comfort as the strongest predictors of commuter satisfaction. These findings echo the conclusions of Tang et al. (2018), who demonstrated that reliability and comfort significantly influence the perceived quality of public transit services globally.

Comparisons with Dar es Salaam's BRT system and Johannesburg's Rea Vaya reveal that strong governance and stakeholder engagement can mitigate many of the challenges observed in Lagos. For instance, the centralized management model in Dar es Salaam ensures policy consistency and accountability (Finn, 2008). Similarly, Johannesburg's proactive integration of informal transport operators demonstrates the value of inclusive planning processes (Venter, 2016). These comparisons suggest that Lagos can benefit from adopting best practices such as clearer institutional roles, enhanced accountability mechanisms, and inclusive stakeholder dialogue.

## **5. CONCLUSION AND RECOMMENDATIONS**

This study investigated the governance and operational challenges affecting Lagos State's Bus Rapid Transit (BRT) system, offering critical insights into its performance and broader implications for urban mobility in Sub-Saharan Africa. The analysis revealed that institutional fragmentation, regulatory gaps, and political interference have significantly hindered the system's effectiveness. Operational inefficiencies, including overcrowding, unreliable schedules, and inadequate infrastructure, were identified as critical pain points, negatively impacting commuter satisfaction and system reliability. The interplay between governance and operational efficiency emerged as a fundamental determinant of the system's overall performance. Strengthening institutional coordination, improving infrastructure, and leveraging technology are necessary steps to address these challenges (Cervero, 2013).

These findings align with existing research by Finn (2008), which underscores the importance of clear governance structures and stakeholder collaboration in enhancing public transit systems. (Oluwakoya, 2014). Moreover, comparisons with Dar es Salaam and Johannesburg's BRT systems underscore the value of centralized management and inclusive planning. Cities that prioritize accountability, infrastructure investment, and stakeholder engagement demonstrate better outcomes in terms of reliability, commuter satisfaction, and scalability (Venter, 2016). The Lagos BRT system, despite its challenges, remains a critical component of urban mobility in the state. Addressing its governance and operational shortcomings requires a holistic and inclusive approach. By implementing the proposed strategies, Lagos has the potential to transform its BRT system into a model for sustainable and efficient public transportation in Sub-Saharan Africa. As Gwilliam (2011) asserts, the success of urban transport systems lies in the synergy between strong governance and sustainable investment.

### 5.1 Policy Recommendations

This study contributes to the literature on urban transport in Sub-Saharan Africa by providing a detailed analysis of the challenges facing Lagos's BRT system. It highlights the importance of integrating governance reforms with operational strategies to improve system performance. The following are the policy recommendations:

- i. Governance and Institutional Reforms: Establishing clearer roles among institutions such as LAMATA, private operators, and the Lagos State Ministry of Transportation is critical to reducing fragmentation and improving accountability.
- ii. Operational Enhancements: Investing in fleet expansion, dedicated lanes, and terminal facilities is essential to addressing overcrowding and service unreliability.
- iii. Technological Innovations: The adoption of digital ticketing systems and real-time tracking can streamline operations and improve commuter experiences, as demonstrated in cities like Dar es Salaam (Cervero, 2013).
- iv. Stakeholder Inclusion: Engaging informal transport operators, commuters, and community leaders in planning and decision-making processes can foster inclusivity and ensure sustainable mobility solutions.

The study's findings also have significant implications for policy and practice:

- i. Strengthening Governance: Clearly delineated roles and responsibilities among institutions are critical to reducing fragmentation and enhancing operational efficiency.
- ii. Infrastructure Investment: Upgrading terminal facilities, expanding dedicated lanes, and increasing fleet capacity can address operational bottlenecks and improve commuter experiences.
- iii. Technological Innovations: Digitalizing the ticketing system and implementing real-time scheduling technologies can enhance reliability and efficiency, as evidenced by successful applications in other African cities (Cervero & Golub, 2007).
- iv. Stakeholder Engagement: Engaging all stakeholders, including informal transport operators and commuters, in decision-making processes can ensure more inclusive and sustainable transport policies.

### 5.2 Limitations and Future Research

While this study provides valuable insights, its findings are limited by data constraints and the specificity of the Lagos context. Future research could explore longitudinal data to assess the impact of governance reforms over time and expand the scope to include informal transit systems in Lagos. Future research could expand on these findings by conducting longitudinal studies to assess the long-term impact of proposed reforms, examining the role of informal transport operators in bridging mobility gaps and comparing urban mobility governance models across multiple African cities to identify scalable best practices.

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