

Research Topic: A Comparative Study of Institutional Responses for Effective Sustainable Mobility in Ghana and Tanzania

Key words: Public Transport, Institutions, Institutional Capacity, Sustainable Development, Sustainable Mobility, Sustainable Transport, Developing Countries

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1. Background of the Research

With the rising (negative) impacts of transportation to the environment, sustainable mobility has received considerable attention at key discussions and decision making discourse on global development visions, policies, goals and long-term development plans (Banister, 2000; Intergovernmental Panel on Climate Change, 2018; International Transport Forum, 2018; United Nations Framework Convention on Climate Change, 2015; United Nations, 1987; United Nations, 2015b; United Nations, 2016b). As such, decision makers underscore the relevance of common vision supported and ratified by all which leaves no continent behind in the quest to ensure sustainable mobility moving forward. The core focus of sustainable mobility, according to Banister (2000), is to find diverse pathways to facilitate movements of people, goods and services in accordance with the sustainable development strategy. Sustainable transport in the same vein is the capacity to provide the mobility needs of humanity in a manner that is least detrimental to the environment and protects the mobility needs of future generations (Rodrigue et al., 2016).

Globally, efforts and commitments towards ensuring the attainment of sustainable transport is explicit in the transport related targets of seven out of the 17 SDGs of the 2030 Agenda for sustainable development (United Nations, 2015a; United Nations, 2016a). More specifically, the 11th Goal, *“Make cities and human settlements inclusive, safe, resilient and sustainable”*, aims *“to provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport”*. This requires building the planning capacities of local authorities and developing consultation with beneficiaries (Agence Française de Développement, 2015). The 13th Goal, *“Take urgent action to combat climate change and its impacts”* aims *“to integrate climate change measures into policies, strategies and planning”*. Hence, to achieve this aim of the 13th Goal, the United Nations (2015a) specifies that it is pertinent to pursue comprehensive sustainable transport solutions (including prioritization of public transport, non-motorized transport, and cleaner and efficient internal combustion engine vehicles).

This research therefore seeks to address the issues affecting Ghanaian and Tanzanian cities in the provision of effective and sustainable road-based public transport by examining the institutional capacity of stakeholders responsible in its delivery.

2. Research Problem

Presently, the state of road-based public transport in Ghanaian and Tanzanian cities is unsustainable benchmarking it against the principles and ultimate impacts of sustainable transport and sustainable mobility noted in the background (Banister, 2011; United Nations, 2015a).

Cities in both Ghana and Tanzania are experiencing rapid motorisation and related negative impacts including road traffic congestion, air quality issues, energy insecurity and greenhouse gas emissions (Aidoo et al., 2013; Peprah et al., 2019; Kiunsi, 2013).

Comparatively, cities in Ghana and Tanzania are experiencing rapid urbanisation (Kanyama et al., 2004; Cobbinah and Nimminga-Beka, 2017; Agyemang et al., 2019; Peter and Yang, 2019; Sietchiping et al., 2012), one of the reasons for the poor state of road-based public transport in these cities (Poku-Boansi and Marsden, 2018; Amoh-Gyimah and Aidoo, 2013; Kanyama et al., 2004).

It is noteworthy to indicate that, in Accra city (Ghana) and Dar es Salaam city (Tanzania), road based public transport is mainly dominated by the use of low capacity vehicles (i.e. paratransit vehicles popularly known as 'trotro'- ranging from 15 to 23 passenger capacity in Accra, and 'daladala'- ranging from 16 to 35 passenger capacity in Dar es Salaam) which induce greater travel volumes, leading to road traffic congestion (Aidoo et al., 2013; Antwi, 2015; Okyere, 2012; Chengula and Kombe, 2017; Nkurunziza et al., 2012; Korea International Cooperation Agency (KOICA), 2016). In effect, the social, environmental and economic characteristics of road-based public transport performance in Tanzanian and Ghanaian cities are distressing (Kanyama et al., 2004; Hart, 2016). As a solution, the Government of Ghana launched the pilot Aayalolo BRT system (i.e. Quality Bus System (QBS)) in Ghana's capital city (Accra) in December, 2016 (Peprah et al., 2019; Poku-Boansi and Marsden, 2018; Accra Metropolitan Assembly, 2018). Unfortunately this collapsed after barely two years of operations in November, 2018. On the other hand, the Tanzanian Government also launched Phase 1 of its BRT system in Dar es Salaam (its largest city) in May, 2016 (Chengula and Kombe, 2017). The phase 1 of the Dar Rapid Transit (DART) has been operational since the launch but has not been without challenges inhibiting its efficient operations ((Mchomvu, 2018; Transportation Research Board, 2017).

In Tanzania, weak institutional coordination and communication among the different stakeholders for the provision of road-based public transport results in poor planning and operation of road-based public transport (Kanyama et al., 2004). Similarly in Ghana, activities of the multiple stakeholders involved in (planning, financing, implementing and operating) the provision of road-based public transport are uncoordinated (Poku-Boansi and Marsden, 2018).

Adding to the above, road-based public transport related functions in Ghana and Tanzania are spread across several agencies or institutions (including local governments) (Pojani and Stead, 2018). However, these institutions often have divergent focus areas with rare sustainable public transport visions. In effect, lack of effective coordination and communication between these sectoral institutions, limited planning capacity and weak administrative arrangements hinder the formulation of more innovative, integrated and sustainable policies for the road-based public transport industry (Pojani and Stead, 2018).

As can be gleaned from the foregoing, the seeming lapse in institutions and institutional capacity and their roles, has compounded road transport challenges in cities in Ghana and Tanzania. Therefore, this research seeks to fill the current research gap in Ghanaian and Tanzanian cities by finding innovative and concrete measures to improve the institutional capacity of institutions responsible for the provision of sustainable (road-based) public transport.

3. Research Questions

Based on the research problem identified, the following questions will be addressed by the study:

1. What are the institutions, their mandate in the provision of public transport and perception on sustainable transport in Ghana and Tanzania?
2. What are the capacity levels (legal and regulatory, financial, logistics, personnel and competence of staff) of institutions involved in the decision making processes in planning for more sustainable public transport systems in Ghana and Tanzania?
3. What are the coordination and communication mechanisms between the various institutions responsible for the provision of public transport in Ghana and Tanzania?
4. Is the existing capacity of these institutions commensurate with the current urban transport challenges in Ghanaian and Tanzanian cities? and
5. In what innovative ways and concrete measures can the existing capacity of the institutions be improved in order to become more responsive to the requirements of sustainable public transport in Ghana and Tanzania?

4. Relevance of the Research

The research will contribute to filling the gap in understanding why cities, particularly, in developing countries are unable to provide sustainable public transport, using a comparative approach for a compared analysis between Ghana (in West Africa) and Tanzania (in East Africa).

Also, the research will investigate measures to build the capacity of institutions responsible for the provision of (road-based) public transport in Ghana and Tanzania in order to respond to the requirements of sustainable mobility and sustainable transport. Ultimately, this will go a long way to contribute to the overall development of cities in these countries.

5. Study Approach and Research Methodology

5.1 Research Design

The research is a comparative institutional study and the selected research design is qualitative research design. This research design allows for more freedom during data collection. Another reason for using this type of design is that the variable of interest (i.e. Institutional capacity) is not quantitatively measurable. The choice of two Sub-Saharan African countries for comparison is informed by the fact that, over a decade cities in Ghana and Tanzania have experienced similar poor characteristics and challenges with urban public transport. Therefore, Governments of these countries have sought to find a solution to these problems. Nonetheless, these efforts have not been without challenges inhibiting the quest to curb the afore-mentioned problems.

5.2 Units of Enquiry

Institutions responsible for public transport in Ghana are Ministry-Ministry of Transport, Ministry of Roads and High Ways, Ministry of Local Government; Department-Department of Urban Roads; Department of Transport (AMA and KMA); Agency-Greater Accra Passenger Transport Executive (GAPTE), Transport Departments-Accra Metropolitan Assembly and Kumasi Metropolitan Assembly (KMA); Private Transport Unions/Operators; National Development Planning Commission (NDPC) Ghana; Environmental Protection Agency (EPA); Land Use and Spatial Planning Authority (LUSPA); Driver and Vehicle Licensing Authority (DVLA); Private Institutions such as Scania West Africa Ltd. In similar vein, institutions in Tanzania responsible for public transport are Ministry- Ministry of Transport and Communication, Ministry of Lands and Human Settlement Development; National Institute of Transport Dar-es-Salaam, National Environment Management Council (NEMC); Departments-Department of Traffic Police, Department of Environment; Authority- Surface and Marine Transport Regulatory Authority (SUMATRA), Dar-es-Salaam Regional Transport Licensing Authority (DRTLTA); Dar es Salaam City Authority; Private Transport Operators and Associations; Dar Rapid Transit (DART) Agency.

On the international front UITP Africa (UATP), the only worldwide network that brings together all public transport stakeholders and all sustainable transport modes will also serve as a unit of enquiry.

5.3 Data Collection Tools and Sampling Frame

- **Sources: Primary and Secondary Data Sources**

Both primary and secondary sources will be used to collect data. Primary data will be collected through empirical field surveys whereas secondary data will be collected through review of relevant literature from journal articles, books, collected works, conference proceedings, institutional reports, published and unpublished thesis among others.

- **Method: Surveys, Interviews, Observation**

Field surveys using structured questionnaires will be undertaken. Further, interview guides will be developed to guide relevant interviews to respondents. Key to both the surveys and interviews will be usage of observations during the surveys – situation of public transport and to validate key issues in the research problem found in literature.

5.4 Methods of Data Analysis and Presentation of Data

Data collected from the empirical field surveys and secondary sources will be edited, transcribed, collated and analysed. Analysis will focus on making inferences, triangulation, and drawing conclusions for development interventions at the micro-level (i.e. Institutions). The findings of the research, together with implications and recommendations, will be documented in this dissertation.

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