

**EVALUATION OF THE INSTITUTIONAL FRAMEWORK OF
URBAN TRANSPORT IN KADUNA METROPOLIS**

BY

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NOVEMBER, 2012

DECLARATION

I declare that the work in the thesis entitled '**Evaluation of the Institutional Framework of Urban Transport in Kaduna Metropolis**' has been performed by me in the Department of Urban and Regional Planning under the supervision of Mr. Y. Teku and Dr. M. Sani

The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this thesis was previously presented for another degree or diploma at any university.

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CERTIFICATION

This thesis titled “EVALUATION OF THE INSTITUTIONAL FRAMEWORK OF URBAN TRANSPORT IN KADUNA METROPOLIS” by Galadima, Abok meets the regulations governing the award of Masters Degree of Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

I dedicate this thesis to God Almighty for the opportunity He granted me to accomplish this task. I also dedicate it to my beloved wife (Mrs Rhoda Abok), and my children (Raphael, Jonathan and Faith). I also dedicate it to my late Father and Mother as well as my beloved brother Mr Joseph Galadima. I owe all of you so much as far as my success in this project is concern.

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ABSTRACT

The research aims at determining the level of integration that exists between the various transport institutions/agencies in Kaduna Metropolis with a view to identifying the problems and proposing a management framework for efficient service delivery. Data for the study were obtained from the semi-structured questionnaire, participant observation and document review. The review of literature was made on the concepts, characteristics and strategies of transport in some cities of the world and indicators for assessing integration among urban transport institutions/agencies. The qualitative data were collected by administration of semi-structured questionnaire based on the yes/no and multiple question options modified Likert Scale to the representatives of institutions/agencies on ideas, opinions, and experiences. Using the questionnaires, 17 institutions/agencies with urban transport mandate were interviewed and analyzed by the use of percentages, mean scores, and grand means. The result revealed that these institutions/agencies least integrate; as the level of their inter-relationship as regards inter-agency role relationships, collaboration, consultation and information exchange is very insignificant. The observation was done by viewing phenomena and assessing them using checklist schedule method, and was used to supplement the questionnaire method. To improve integration among the institutions, the study outlined some policy directions and proposed institutional management framework and these include; all institutions/agencies with urban transport mandate need to collaborate, make consultations, cooperate and communicate at all levels so as to provide a coherent framework for effective operation, avoiding policy inconsistencies, as well as overlapping of roles and functions. There is need to prepare an integrated and common urban transport plan for common implementation by all stakeholders. Collaboration among the stakeholders should be improved through; proper coordination of their activities by the coordinating agency, and to enforce compliance to joint decisions taken by stakeholders. Consultation among the institutions should be improved through; regular holding of formal meetings and participation in joint workshops and seminars to discuss urban transport issues and formulate strategies to solving the existing problems and curtailing the future ones. Information exchange should be improved through; the provision of effective means of communication amongst the organizations in the areas of internet/telephone services, mass media, public awareness campaigns, and improving regularity of accessibility of the institutions to up to date information from other institutions/agencies. Specific routes should be designated to different modes and vehicles types. There should be designated bus stops so as to have effective parking control. The local governments should coordinate the provision of the designated intra urban transport motor parks, and bus/car stops so as to enhance effective parking control. More vehicles should be provided based on the public private partnership initiative model.

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CHAPTER ONE:

1.0

INTRODUCTION

1.10 BACKGROUND OF STUDY

The concept of transport system is broad in perspective. It can be seen as an entity Consisting of various component parts (the input, output, and process units) which are expected to work together (inter-relate) so as to effectively achieve the goal/objectives of the system. It involves the mode of travel/services provided as well as the channels along which one travels/ terminal facilities, the users and stakeholders.

Urban transport contributes to a better quality of life for all by offering safe, affordable, accessible, and attractive travel that satisfies the mobility needs of the community and supports the economic development of cities (Buffalo City Municipality, 2003). Furthermore, improved urban transport, particularly public transport according to Onokala (2001) is expected to result in increased mobility of the masses, reduce congestion by reducing the number of vehicles on the road as well as provides the most efficient means of moving large number of people especially in densely populated urban centres.

Realizing the importance of urban transport system, some policies have been developed by government in making it functional. For instance Ikhazoboh (1993) noted that the Mass Transit Policy was designed to help transportation especially urban transportation because transport is critical to development through its impact at various levels of socio-politico-economic affairs. More precisely, the Federal Urban Mass Transit Agency (FUMTA) was established in 1988 as Government response to

the mobility crisis arising from the gross inadequacy of the various modes of public transportation in virtually all the urban centres in the country so as to alleviate the sufferings of commuters. Also the main thrust of the Draft National Transport Policy of 2010 is on developing an efficient, self sustaining and reliable public transport system that meets the needs of the growing population of the cities of Nigeria, and to improve the infrastructure and institutional framework for public transport service delivery.

However in order for the urban transport system to be functional, the stakeholders responsible for its management must be effective in carrying out their roles and responsibilities; and these can only be achieved when such institutions/agencies are integrated and coordinated.

The institutional framework component of urban transport system consists of service provision, control/regulatory agencies, legal/enforcement agencies, planning agencies, training institutions, standard and stipulation agencies. The importance of the institutions/agencies cannot be overemphasized, as it is the living component of the system hence its life wire.

Realizing that literatures have shown that many studies have been carried out on the other areas of urban transport system, this research therefore will be on the aspect of institutional framework. The study is to examine the nature of inter-agency relationships (integrative coordination) among the urban transport institutions in Kaduna Metropolis

1.20 RESEARCH PROBLEM

The availability of effective urban transport services is crucial to sustainable urban development. This is because a functional urban transport system shapes the city's physical structure, affects its economic development and impacts upon the quality of life of its people. The benefits of urban transport system in most cities however have not been realized for a number of reasons which include the overlap of functions due to lack of proper integration.

The importance of integrated urban transport system cannot be over emphasized, realizing that it contributes to the attainment of improved service as it offers safety/reduction in accident, better traffic flow, regulated transport fares, better environmental quality, greater user acceptance, better travel information, increased transport business activity, faster construction cost recovery and better planning information (Dhingra, 2008). Understanding these benefits of integrated urban transport becomes necessary therefore that cities should attain this feat, hence the need to conduct city by city studies to determine whether these conditions have been met or not.

Studies have been carried out on various aspects of transport planning such as administrative, planning, regulatory/enforcement organizations as well as on the institutions/agencies involved in the management of modes, and channels or infrastructure. For instance Oni, Okanlawon, & Asenime (2006) in attempting to proffer solutions to conflict amongst transport system management agencies in Lagos limited the scope to transport modes hence recommended the need to adopt the concept of integrated and coordinated multi-modal transport system management in solving the problem. In a similar vein Dayo (2006) examined the problems of traffic

management agencies in Lagos and concluded that there was absence of coordination amongst the agencies. Also research conducted by Antonio (2005) on service or operational organizations for which numerous forms of urban transport integration in Hong Kong were considered such as; institutional integration, fare integration, service integration, physical integration, information and tickets integration. The study carried out by Kanyama, Annika, Lindén and Lupala (2004) focused on the administrative organizations involved in urban transport management hence identified one of the key issues causing the problems of urban transport system institutional challenges in Dar-es salaam to be in the area of lack of a well-defined authority and administrative system that has the responsibility for the formulation and implementation of coordinated strategy for transport.

However, such studies have been piecemeal and have not holistically considered the entire urban transport institutions in relation to service provision institutions, infrastructure provision agencies and regulatory or enforcement agencies in order to determine their inter-relationship, hence this is an indication that a gap in literature exists. This therefore forms the basis for this study particularly for a city like Kaduna where there has been steady and rapid growth in population and physical territory. Thus the focus of this study is to propose a management framework for the plethora of urban transport institutions/agencies in Kaduna Metropolis.

1.30 RESEARCH QUESTIONS

This study is guided by the following research questions:

- (a) What is the existing institutional framework for urban transport in Kaduna Metropolis?
- (b) What are the roles and responsibilities of the institutions/agencies that are involved in urban transport services and management in Kaduna Metropolis?
- (c) What form of integration (inter-relationship) exists amongst the institutions/agencies that are involved in urban transport services and management in the study area?
- (d) What are the implications of the absence or otherwise of an integrated urban transport system in Kaduna Metropolis?
- (e) What management framework is appropriate for integrating the agencies involved in urban transport system in Kaduna Metropolis?

1.40 AIM AND OBJECTIVES

1.41 Aim

The aim of the research is to determine the level of integration that exists among the various urban transport institutions/agencies in Kaduna Metropolis with a view to identifying the problems and proposing a management framework for efficient service delivery.

1.42 Objectives

- (a) To review the concepts, strategies and indicators for assessing the nature of inter-relationship among transport institutions/agencies in urban areas.
- (b) To identify the existing institutional framework for urban transport in Kaduna Metropolis
- (c) To identify the roles and responsibilities of the institutions/agencies involved in urban transport services and management in Kaduna Metropolis

- (d) To examine the nature of inter-relationship among the institutions/agencies responsible for urban transport operations in the study area.
- (e) To determine the implications of the absence of an integrated urban transport operations in Kaduna Metropolis
- (f) To propose a management framework for integrating the institutions/agencies responsible for urban transport operations in Kaduna Metropolis

1.50 SCOPE AND LIMITATION

Urban transport system consists of four inter-related areas vis; the modes and services, infrastructure, users and the providers as well as institutions/agencies with management responsibilities. For the purpose of this research, the area of concern will be on the agencies that are involved in urban transport in Kaduna Metropolis. The study will be concerned with evaluating the institutional framework of urban transport institutions in Kaduna Metropolitan Area constituting mainly of Kaduna North, Kaduna South and parts of Chikun and Igabi Local Governments which fall within the existing built-up area (as at 2012) as in figure 1.

The areas to be concerned with in this study are in terms of the nature of relationship amongst the institutions (integrative coordination). The study will only focus on the institutions that are involved in road based urban transport in the metropolis; and the aspect of the institutional component to be covered include service provision institutions, infrastructure provision institutions, and regulatory or enforcement agencies. The evaluation of the institutional framework will be carried out through the application of indicators of integrative coordination. The following institution/agencies will be considered for the study;

Service Provision Institutions: These include; Kaduna State Transport Authority (KSTA), Nigeria Labour Transport Services (NLTS), National Union of Road Transport Workers (NURTW), Okada Riders Association and National Association of Road Transport Owners (NARTO).

Infrastructure provision/Maintenance Agencies: These consist of; Federal Ministry of Works, Federal Road Maintenance Agency (FERMA), Kaduna State Ministry of Works and Housing, Kaduna State Public Works Agency (KAPWA), Kaduna North, Kaduna South, Chikun, and Igabi Local Government Areas (Works Department);

Regulatory or Enforcement Agencies: These include; Federal Road Safety Commission of Nigeria (FRSC), the Nigerian Police Force, Traffic Wardens, and Vehicles Inspection Division (VID)

The study was limited by inadequate literatures on the subject matter, hence the researcher has to review literature from related fields and for which same was used in developing the instrument for data collection and in making appropriate recommendations. However, this limitation did not significantly affect the outcome of the research as the researcher carefully selected the appropriate literature.

Fig 1.1: Kaduna Metropololis

1.60 JUSTIFICATION OF STUDY

Effective institutional framework is a fundamental requirement of urban transport system. This is because the institutions component of the transport system is the living component part of the system consisting of humans as service, and infrastructure providers, as well as regulatory agencies. In order to appreciate problems that exist in any area of endeavor and proffer suitable solutions, there is need to study the phenomenon. Unfortunately however there is no known study carried out in Kaduna Metropolis (being a medium sized city) on the activities of the organizations in order to determine the level of their integration. This therefore, constitute a research gap which this study intends to fill. It is the curiosity to understanding the nature of inter-relationship among the transport institutions in Kaduna Metropolis and evolving a management framework for integrating them that the idea to carry out this research was developed. The findings of this study shall therefore not only add to knowledge, but will also be useful to the stakeholders in transport and other sectors in the Country and beyond.

1.70 DEFINITION OF TERMS

Coordination: In the context of this study it means the working together of institutions/agencies and accepting the need to adjust and make some changes to improve urban transport services, thus avoiding overlap

Co-operation: Co-operation in this study means the situation whereby different transport institutions/agencies share information and ideas.

Collaboration: Collaboration refers to a process of participation through which people, groups, and organizations work together to achieve desired results. It also simply means the situation whereby transport institutions agree to work together on

strategies or projects, and each contributing to achieving shared goals. In this research, it refers to the situation whereby the institutions with urban transport mandate work jointly so as to achieve integrated and effective transport service.

Communication: Communication in this study refers to the act of exchanging information among concerned institutions/agencies.

Consultation: In this study consultation means a meeting in which public transport institutions/agencies have discussions before decisions are made pertaining to issues affecting them.

Evaluation: Evaluation as defined by Kiefer (2010) is the process of examining a subject and rating it based on its important features (a process of making judgments based on criteria and evidence)

Integration: Integration as defined by Teixeira, Koufteros, Peng, and Schroeder (n.d) refers to the state of collaborations that exists among departments or organizations that are required to achieve some common objectives. It relates to interrelationships among organizations so as to smoothly work together as a system and aims at ensuring that different sub-systems work towards common goals. For the purpose of this research integration is defined as a process of coordinating separate institutions with urban transport responsibility into a balance whole.

Integrative coordination (or inter-organizational relationships): In this study it refers to a situation where organizations work together jointly, sharing aims, information, tasks and responsibilities in order to intervene early to prevent problems arising which may impact on urban transport achievement.

Management: Wikipedia (2009) defined management as the organization and coordination of the activities of an enterprise in accordance with certain policies and in achievement of clearly defined objectives.

Institutions: The term institutions as used in this research refers to the agencies, organizations or stakeholders that have the mandate for the provision of urban transport services, infrastructure and enforcement of laws and regulations.

Institutional Framework: Institutional framework is defined in this study to be a set of organizational structures, rules and norms for urban transport service delivery and management.

CHAPTER TWO

2.00 LITERATURE REVIEW

2.10 INTRODUCTION

In order to put this research into context, different literatures were reviewed in transport and interrelated areas in this chapter. Both the theoretical framework and empirical studies were covered for which the review of concepts/models principles, benefits of urban transport system and empirical studies of some urban transport issues were done for some cities of the world. Also the review of indicators for assessing integration among urban transport institutions was made.

2.20 URBAN PUBLIC TRANSPORT CONCEPT/DEFINITION

Dziekan (2008) noted that Public transportation has many synonyms: transit, public transit, mass transit. According to Dziekan the Swedish term “kollektivtrafik” means travelling together and bundling individual journeys. The Germans call it “Öffentlicher Personennahverkehr” (ÖPNV), focusing on the aspect of being accessible to the public and often financed by public bodies, and on the passive transport of people.

There are many definitions of public transport. White (2002) cited in Dziekan (2008) defined it as including all modes available to the public, irrespective of ownership. In addition to the scheduled services of bus, coach and rail operators, the definition includes taxis, private hire buses and coaches and even the provision of school bus services. The online lexicon Wikipedia (German version) cited in Dzieken sees it as mobility and transportation services that are accessible for everybody. The main

criteria are general accessibility, that the service is offered by special transport operators, and that conditions such as prices and timetables are set. Public transport comprises all transport systems in which the passengers do not travel in their own vehicles. While it is generally taken to mean rail and bus services, wider definitions would include scheduled airline services, ferries, taxicab services, etc. — any system that transports members of the general public (Wikipedia, 2007).

However, for the purpose of this study, public transport is widely viewed as a system which includes the mode modes of transport available to the public (services provided) irrespective of ownership for which fares are paid; the channels along which one travels, terminal facilities, as well as the users and stakeholders.

2.30 URBAN TRANSPORT SYSTEM

The term urban transportation system according to Vuchic (2009) is used in a broader meaning. Beyond the physical system, other system components are included. It includes the bus, car, and rail networks as well as stations and also the information, organization and the journey itself. The term therefore also includes information such as timetables, announcements in vehicles or at stops or other strategically and tactical information about how to use urban transport - particularly Public transport.

2.40 TYPES OF URBAN TRANSPORT INTEGRATION

Potter (2010) and Dhingra (2008) identified the following as types of urban transport integration;

(a) Physical integration: This is in terms of integrating transport modes like rails, buses and Para transit etc. at the intermediate points or at the terminals with

interchange facilities so that different modes can be switched over as per requirements & convenience

(b) Operational integration: Is related in terms of scheduling and routing of different modes

(c) Institutional (organizational) integration: Is an arrangement which can be established among policies of different operating agencies like railways, BEST authorities, local transport unions etc. so that they can work in unison. The cooperation and interaction of these stakeholders such as political, legal and financial representatives is crucial, especially in the design and implementation phase but also at the operational stages of an integrated urban transport system.

2.50 BENEFITS OF INTEGRATED URBAN TRANSPORT SYSTEM

Numerous benefits are derived from an integrated urban transport system which contributes to sustainable city development. Dhingra (2008) observed that these benefits include among others the following;

- Improved safety/reduction of accident
- Better traffic flow
- Lower travel cost
- Better environment quality
- Increased business activity
- Faster construction cost recovery
- Greater user acceptance
- Better travel information
- Better planning information

2.60 MODELS OF URBAN TRANSPORT SYSTEM: AN EXAMPLE OF CHINA

Yulin, Liguang, Jixiu, Hu. and Hongyang (2008) stated that three models of urban transport system exist in China thus:

Model 1: Traditional Model with overlapping Management by various Sectors

Under the Traditional model, the transport administration according to Yulin et al is managed by various sectors including transport, urban construction, city affair management, urban management, and public security. A number of cities are said to be applying this model, including Nanjing, Kunming, Fuzhou, Nanjing, and Hangzhou. However the model is characterized by: multiple management, industry division, department division, crossed function, divided policies from various sources; and high administrative cost (see Table 2.1).

Model 2: Integrated Urban-Rural Transport Management

In this model the transport authority manages the road and water transport, urban public transport, and highway passenger transport around the city. Examples of cities applying this model include Shenyang, Harbin, Urumqi, and Xining. The major characteristics of this model (as reported on Table 2.1) are; road transportation resources are integrated, but there is lack of united strategies, united planning, united decision-making and united construction functions for urban and rural transport.

Model 3: One City, One Transport Authority Model

Based on this model, the transport authority is in charge of design and plan, road (city and highway) and water transport, urban public transport, taxi management, and railway and civil aviation in the city. Some of the cities that are applying this model include Beijing, Guangzhou, Chongqing, Chengdu, Shenzhen, and Wuhan. This

model is characterized by integrated road transport administration, but centralized and unified management has not been developed yet in aspect of transport infrastructure construction and maintenance (see Table 2.1)

Table 2.1: Overview of Transport Administration Modes in Chinese Central Cities 14

Mode Category	Mode 1	Mode 2	Mode 3
System mode	Transport, urban construction, municipal, public security etc departments implement cross management for the transport	Carry out integrated management of urban and rural road transportation	Comprehensive transport administration of "One Transport Authority in One City"
Representative cities	Nanjing, Kunming, Fuzhou, Nanning, Hangzhou etc 18 cities.	Shenyang, Harbin, Urumchi, Xining etc 8 cities.	Beijing, Guangzhou, Chongqing, Chengdu, Shenzhen, Wuhan etc 10 cities.
Typical characteristic	Multiple management, industry division, department division, crossed function, divided policies from various sources, high administrative cost.	Road transportation resources are integrated. But united strategies, united planning, united decision-making and united construction functions for urban and rural transport are not available.	Integrated road transport administration has been realized, but centralized and unified management has not been developed yet in aspect of transport infrastructure construction and maintenance.

Source: Yulin et al (2008)

2.70 URBAN TRANSPORT STAKEHOLDERS AND THEIR RESPONSIBILITIES: AN EXAMPLE ACCRA, GHANA

According to Centre for Urban Transportation Ghana (2010), the stakeholders involved in urban transport are:

(a) Ministry of Roads and Highways

Has overall responsibility for urban transport policy formulation, monitoring and evaluation. The Department of Urban Roads, which is the implementing Agency for the project, sits under this Ministry.

(b) Ministry of Transport

Has responsibility for:

- the Driver and Vehicle Licensing Authority, has the responsibility to regulate vehicle and driving standards

- the National Road Safety Commission, is responsible for the education of road users and coordination of all road safety activities.
- Responsible for dealing directly with all Operators including Metro Mass Transit.

(c) Ministry of Local Government and Rural Development

- Has overall responsibility for the formulation, monitoring and evaluation of an integrated urban development and growth policy.
- Has responsibility to ensure that capacity is developed in the Municipal and Metropolitan District Assemblies to carry out their mandate to plan and regulate urban transportation pursuant to the Local Government Act (462)
- The Town and Country Planning Department is responsible for the integration of urban development planning and transport planning.
- The Environmental Protection Agency is responsible for developing national emission standards and monitoring.
- Regulates the Strategic Environmental Assessment and Environmental Impact Assessment processes of the project.

(d) Metropolitan and Municipal Assemblies

- Have the mandate to plan and regulate urban transportation.
- Have established Urban Passenger Transport Units with support from the project, to build capacity and implement measures to take over the regulation of public transport from the driver unions and associations.
- Will also be required, through appropriate institutional structures, to cooperate with each other in regulating cross jurisdictional services.

2.80 MAJOR PROBLEMS OF TRANSPORT ORGANIZATIONS IN CITIES: AN EXAMPLE OF CHINA

According to Yulin et al (2008) the problems that restrict transport development in central cities of China mainly include the following:

1. Decentralized Administration Bodies with Obvious Contradictions

The study conducted for China revealed that various transport modes management bodies are disjointed. The study indicated that administration bodies of different transport modes for highway, railway, civil aviation, pipe, urban mass transit, bus and trolley, taxi etc in different cities of China are decentralized and in different departments. This means that different types of management modes are developed, including “vertical management modes”, “block management modes” and “parallel strip modes”.

2. Unreasonable Administration Functional Configuration with low Administrative Efficiency

Unreasonable government function setting and unclear functional definitions have plagued administrative efficiency. Also too many administrative levels along with redundancies have caused low administrative efficiency, with results of low efficiency, due to overstaffing, waste of personnel, property, materials and resources.

3. Incomplete Communication and Coordination Mechanisms

Urban planning, transport infrastructure construction and maintenance, passenger and freight transport, and road transport administration functions in most central cities belong to different government departments such as construction, public security, transport, planning etc, and lack of communication and coordination mechanisms. Due to the lack of effective coordination mechanisms, it is very difficult to connect the various transport plans of urban road, highway, and urban rail etc. Also,

uncoordinated transport administration, such as the contradictions between suburban passenger transport management of the transport department and urban public transport under the construction department, as well as traffic order, parking management and safety management under public security transport management departments.

4. Incomplete Supervision Mechanisms

There is imperfect supervisory mechanism in the transport system mainly embodied in the fact that the transport administration department is both a policy executor, and the supervisor of policy implementation effect. Thus it cannot ensure its impartial law enforcement making supervision non-transparent and administration accountability questionable. Furthermore, there is lack of a supervisory mechanism for the service quality of public transport enterprises hence causes weak supervision of the government on public transport enterprises with very low public participation degree.

2.90 INSTITUTIONAL PROBLEMS IN URBAN TRANSPORT MANAGEMENT: AN EXAMPLE OF DAR-ES-SALAAM

Kanyama et al, (2004) observed that the major institutional problem of urban transport in Dar-es-Salaam is poor coordination. The interview conducted by Kanyama with the City Council revealed that coordination between itself and the three municipalities of Dar-es-Salaam is inadequate. For instance, it revealed that whenever requests are made to convene meetings for the City Council's working groups, it is common that attendance is poor among municipal engineers and planners. Municipalities do not put priority on transport planning; instead they put more attention on road building.

It was further revealed that when the Ministry of Works embarks on building of Dar-es-Salaam's roads, the Traffic Police Department is not consulted although its staff has everyday experience of traffic management which could be accommodated during design of roads and in the provision of associated infrastructure. On the whole, coordination is poor amongst Traffic Police, road planners and engineers, the Traffic Licensing Authority and the Ministry of Transport and Communication:

The study further revealed that there is no effective coordinating organ. "Poor coordination involves all the institutions that have a role in the operation of public transportation in Dar-es-Salaam and these include the City Council, the Traffic Police and the Municipal Councils. Due to lack of a well-organized system of coordination between these institutions, it is common to find overlapping areas of responsibilities which in some way bring about conflicts during execution of duties. There is no coordinating body or an explicit system of coordination that ensures that a policy for transportation is implemented in a coherent manner. The lack of coordination and organizing organs as revealed by the study are the factors which affect the public transport industry in Dar-es-Salaam.

2.100 PRINCIPLES FOR EFFECTIVE INSTITUTIONAL FRAMEWORK OF URBAN TRANSPORT MANAGEMENT:

Meakin (2004), Hamed (2008) and Kane (2001) considered the following as the requirements for effective transportation management institutions;

- (a) **Clear attainable objectives** which are consistent with broader policy Objectives
- (b) **Well defined working procedures:** In terms of tasks/duties, and basic rules of operations

- (c) **Adequate resources:** There must be adequate funds and qualified staff
- (d) **Coherence Policy:** The transport sector requires coherent policy and organizational structures, consistent laws and regulations and good professional staff. Coherence is a pre- condition, which is necessary to enable good administrators, regulators and operators to make good use of their potentials and professional staff to make good use of their skills as they seek to manage transport services.
- (e) **Accountability for performance:** In terms of openness/ free and easy access to information by the general public, and making audit reports available to the public.
- (f) **Public Participation:** There must be procedures for public reporting and consultation with stakeholders. Citizen participation is a necessary part of the policy machinery for good transit service. It is particularly needed to keep public transportation service responsive being the feedback loop in the policy delivery system.
- (g) **Decentralization of functions (Separation of functions):** Urban transport decision-making should be decentralized to the local level, as a means of ensuring that all urban residents are adequately served by effective transport services at affordable prices. Good governance can only be seriously pursued by separating responsibilities in a hierarchical structure.

2.110 METHOD OF PARTICIPATION AMONG INSTITUTIONS/AGENCIES

Literature on the method of participation will be of great help in deciding the indicators to be developed for this research work. Bolland and Wilson (n.d) highlighted the following as some of the methods:

- a. Public hearings:** In many countries this is the traditional legally required meeting to take formal action on a proposal or draft plan prepared by a public agency or to record public complains about some proposed action by an agency.
- b. Community forum:** A community forum is based on one or more public meetings sponsored by an official agency. Residents are invited to express their opinions about community problems and needs. A forum may also be used to inform citizens of potential programs and actions and to obtain feedback. With advance planning, an enormous amount of information can be obtained from a forum in a short time and at minimal cost.
- c. Task force:** An agency sponsored citizen committee with a specific task and charge related to a single problem, subject or project. Members of task forces may be specially selected or invited to participate because of their unique skills or backgrounds; they may volunteer; they may be nominated or elected; or may be formed by a combination of these processes.
- d. Focus/ user groups meetings:** Focus groups are a tool for collecting qualitative data from group discussions. A moderator follows a predetermined interview guide to direct a discussion among a group. Regular meetings are held between officials, and focus/user groups to discuss proposals as they develop. It requires that stakeholders are organized in some way. Common methods are to have street committees, or one committee with representatives from all streets, sub-areas; committee of users for certain facility, parents committee on education for example, etc. An advantage of this method is that it allows group interaction such that participants are able to build on each other's ideas and can give insights into not just what participants think, but also the reason for such thinking.

- e. **Citizen's juries:** A small group of 15-20 citizens are randomly selected. They are gathered in such a way as to represent a microcosm of their community. They meet over several days to deliberate on a policy question. They are informed about the issue, hear evidence from witnesses and cross-examine them. They then discuss the matter among themselves and reach a decision.
- f. **Social survey:** Carried out prior to drawing up plans or proposals. It may include questions on residents' attitudes to and ideas about the area. This is by far the best and relatively inexpensive way to gather information from a large number of people. Surveys may also be conducted to set priorities, evaluate performance, importance, affordability, etc. If a survey is well designed and implemented, the results can be generalized to a larger population.
- g. **Advisory/consultative forums:** Forums are constituted of citizens, marginal groups in society and other special interest groups known or believed to represent the interest of the likely affected parties and presumed to represent their ideas and attitudes. The purpose is to advise the public agency. Sometimes consultation guides are prepared for discussion with forums and to have their views on the subject matters of the prepared publications.

Interactive website: An interactive website on the Internet may be created by an agency to obtain (as well as provide) helpful information, request opinion and suggestions on some matters, receive complains etc. from stakeholders. This can be done either on a regular basis or on an ad hoc basis to serve some specific purpose. The success of this method, however, much depends on the level of Internet penetration in a society.

- h. **Workshop:** Workshops can be organized with participation of all stakeholders to prepare a plan or formulating guidelines to prepare such a plan. The beneficiaries can

themselves identify their problems, priorities and actions needed to solve the problems. Workshops can also be used as tools for transfer of information and knowledge, improve working relationships and support other management functions.

The planner or the local authority can play the role of a facilitator and provide technical support as needed. Some appropriate methods to deal with workshops include facilitation, visualization, video and group work. Visualization techniques in workshops have proven very successful.

- i. Partnership:** This method involves very high level of participation. Residents and other stakeholders and local authority collaborate on plan preparation, with ideas coming from both. Residents might also carry out some surveys, and later be involved in implementation of the plan.

2.120 INTEGRATIVE COORDINATION

Integrative coordination simply is a phenomenon where there is the combination of integration and coordination indicators in assessing the inter-relationship of organizations. Integration and coordination are necessary controlling mechanisms to ensure placid functioning, particularly when organizations become large and complex.

Integration aims at ensuring that different sub-systems work towards common goals.

2.120.1 Need for integrative coordination

Anderson, (1988) noted that integrative coordination is necessary for several reasons including the following:

- Since different organizations are required to achieve broad strategic objectives rather than only individual objectives, there is need to have a coordinating agency to coordinate the different units

- The coordinating agency has to settle conflicts and disputes between and or among different organizations. When different organizations are assigned different goals and tasks, conflicts are inevitable. A manager needs to integrate and coordinate the work of different organizations to effectively resolve conflicts.
- The necessity for coordination increases with increased specialization, because increases in specialized functions leads to decision making in specialized units or sub- units.
- It leads to better performance and productivity of organizations.
- It instills discipline to member organizations in honouring the objectives and also complying with the rules and regulations of the organizations.
- It creates unity of direction whereby members of the organizations jointly work toward the same goals.
- Specialization

2.120.2 Importance of Integrative coordination

Integration coordination is a necessary controlling mechanism to ensure placid functioning between organizations.

2.120.3 Need for integration

Integrative coordination brings about increase in the level of inter-organizational relationship. When the inter-organizational system is structurally fragmented, coordination is low; when it is structurally integrated, coordination is high. This is therefore the phenomenon of integrative coordination.

The assumption is that more relationships reflect better coordination. That is to say that increased levels of contact among agencies, or increased dependence among

agencies, constitutes coordination (Van de Ven, Walker, and Liston 1979 in Bolland and Wilson n.d)). The key issue of the assumption here is that a system where no organizations work together cannot be coordinated, while a system where all organizations work with each other must be coordinated.

In summarizing the importance of integration in management, Jarulaitis (2006), opined that every organization has to transfer information and share knowledge across functional and organizational borders, hence integration is prerequisite for every organization rather than an option. From management perspective, integration is seen as a mean to cut costs and improve efficiency. This is because integrated organizations share information easily amongst them hence is a strategy to obtain higher control over organizational resource

2.130 CASE STUDIES ON THE PROVISION AND MANAGEMENT OF URBAN TRANSPORT SYSTEM

Here case studies of best practiced integrated urban transport system were illustrated

2.130.1 The Case of New Zealand:

The Government's role in overseeing the transport sector according to Hamed (2008) has been focused on ensuring that the transport system contributes the maximum benefit to New Zealand at the minimum cost, consistent with sustainable development. The minister of transport controls policies but receives strategic policy advice from his Ministry and the regulatory agencies.

The Ministry of Transport's core functions are therefore; largely policy oriented.

As the minister of transport's agent, the Ministry plays an important role in negotiating and monitoring contracts with the standalone crown bodies (Hamed 2008). These are: Civil Aviation, Maritime Safety and Land Transport Safety Authorities, the Aviation Security Service, Transit New Zealand, Trans-fund New Zealand and the Transport Accident Investigation Commission. The Ministry also manages the Motor Vehicle Registry and Revenue Management business. The Development of any legislation for the transport sector is the Ministry's responsibility.

Each of the transport entities according to Hamed is controlled by a Board of Directors or Authority appointed by and accountable to the minister of transport. In addition to annual negotiated Performance Agreements with the transport entities, the expectations of the relationship between the Minister, the Ministry and each entity are set out in the 'Protocols and Guidelines', which are distributed to all Board and Authority members and entity senior management. Performance Agreements are negotiated by the Minister, through the Ministry, prior to the commencement of each financial year. The minister also has a Performance Agreement with the New Zealand Police (signed jointly with minister of Police). The New Zealand Police delivers road safety. This is funded through income from the National Road Fund.

The minister of transport has a direct agreement with the Land Transport Safety Authority for the management and administration of Motor Vehicle Registration/Revenue Management. This contract is commercially based. At the beginning of 2005 transport management was reformed by merging of the public transport and road safety authorities into a single entity under the Minister. The agencies have transferred their strategic policy making functions to the Ministry while

retaining their individual responsibilities for the management of road safety and the supervision of transport projects

The minister receives regular reports on entity performance under these agreements and, in the light of these reports, writes to the Chairs of the entities suggesting directions or improvements. In addition, regular audits and performance reviews of these entities are conducted.

2.130.2 The Case of Finland

There are seven Government departments and agencies, one state owned enterprise and seven state-owned companies operating within the purview of the Ministry of Transport and Communications (Hamed 2008). The Government departments and budget-bound agencies are independent organizations operating according to a business plan.

They use part of their revenues to finance direct operational expenses. The task of the Ministry is to monitor and supervise their work. The means of monitoring include annual result goals and follow-up of their implementation and monitoring of the use of funds.

The Ministry of Transport and Communications is responsible as the trustee of state-owned joint stock companies and enterprises within the field of transport and communications. The Ministry monitors their overall performance requiring them to be profitable, productive and providers of good service. This ensures the growth in the value of the companies and the development of services (Hamed 2008)

2.130.3 The Case of Ghana

The review of Barbut in Hamed (2008) revealed that Ghana is one of the African Countries that has proposed to employ some of the principles of effective transportation management in the planning and managing its bus rapid transit (BRT). The following principles according to Hamed (2008) were proposed to be employed:

(1) Developing adequate human resources viz;

a) Developing key skills and competencies to meet the demands of the Transport Sector by:

- Training personnel in the profession of Transport Planning, Traffic Management and Traffic Engineering.
- Promoting the role of women in the transport sector as providers of services, professionals and managers.
- Training traffic enforcement personnel and the judiciary to improve enforcement and judiciary processes.
- Encouraging improvements in existing driver training and testing schools and encourage the establishment of driver training for heavy goods and public service vehicles.

b) Carrying out of research on all aspects of transport sector performance and applied by public and private sector organizations by the use of modern ICT to improve the development and maintenance of transport infrastructure and delivery of transport services.

(2) Developing a Decentralized Institutional and Regulatory Framework for Urban Transportation.

a) An institutional framework shall be established, separating functions of

Policy Formulation, Regulation, Asset Management and Services including the empowerment of the MMDAs to license and regulate all service providers for urban transport.

b) A Centre for Urban Transportation (CUT) shall be established as a centre of excellence for the delivery of urban transportation in support of the MMDAs.

(3) Stakeholder Participation Plan

The Stakeholder Participation Plan will include the following:

- (i) Organizing workshops with key Ministry and Municipality staff to inform them of the challenges and to share “best” practices from successful examples across the world
- (ii) Organizing focus group discussions with the Unions, drivers and Associations to understand their point of view and inform them about the proposed changes
- (iii) Consulting the public on the BRT, and seeking their input primarily through scheduled “town hall” meetings
- (iv) Generating public awareness, involvement and enthusiasm and transforming that into sustained political support for the BRT
- (v) Instituting ways to generate interest in BRT through the media
- (vi) Organizing study tours

2.140 INDICATORS FOR ASSESSING INTEGRATION OF URBAN TRANSPORT INSTITUTIONS/AGENCIES

In order to collect relevant data for any research, appropriate indicators must be developed. Since this research is a status study, evaluation indicators to be developed will therefore be based on ground realities/experiences and challenges.

Litwak and Hylton (1962) in Bolland and Wilson (n.d) viewed the indicators for measuring coordination in terms of organizational rules and procedures: in the areas of the use standardized language and forms, establishment of common rules, policies, and procedures, engaging in monitoring through memos, reports, and computerized information systems, exchange of ideas and information.

However the summary of the indicators as relevant to this research include the following:

2.140.1 Communication:

This refers to the situation where there is exchange or transfer of information and ideas among the organizations. Information exchange is important in integrating organizations because good flow of information provides the entry point for promoting discussion and ensuring involvement in decisions and actions based on that information. Also good relationships happen where there are good communications, based on smooth flow of information, participation and involvement. Good flow of information also encourages transparency hence attainment of efficiency and effectiveness.

Interactive website is also another aspect for which information exchange and communication can take place between or among organization. An interactive website on the Internet may be created by the apex organization to obtain and/or provide helpful information, request, opinion, make suggestions as well as receive complains etc from stakeholders.

2.140.2. Consultation:

Consultation simply means building of common understanding and broad consensus among organization. Consultation with other organizations is also an important indicator of integrative coordination. This is because partners in consultation expect their views to be heard and taken into account. Consultation is broad in perspective and can range from simple type such as collection of information through questionnaire/interview surveys, round table discussions, public meetings, etc., to more sophisticated varieties such as regular joint meetings, and workshops.

One of the effective means of consultation is workshops and seminars. Workshops and seminars can be organized with participation of all stakeholders to prepare a plan of action or formulating guidelines to prepare same. Workshops can be used as tools for transfer of information and knowledge, improve working relationships and support other management functions.

Importance of Consultation

Melton (2002) in establishing the importance of consultation among organizations opined that consulting with key stakeholders is an important factor in achieving ultimate success and these could be achieved through the following ways:

- Quality input leads to quality decision-making. A broader perspective reduces “group think”, helps to challenge traditional thinking, and sparks creativity in problem solving.
- Greater stakeholder satisfaction with the final planning product comes from their involvement in shaping it.

- The chances of successful implementation increase as more stakeholders feel committed to the plan or project's goals and take ownership of the plan's design.
- Good governance, transparency and open communication are served when Boards communicate and receive feedback from stakeholders, instead of being guided by personal agendas.

Consultation with stakeholders just to say you did. If you include them, it must be because you are willing to include their point of view and you intend consultation to result in change or a new direction.

Main Options/Comparative Benefits of Stakeholders' Consultation

Melton (2002), noted that the followings are the main options/comparative benefits of consultation. See Table 2.2:

- Surveys
- One-on-one meetings
- Multi-stakeholder consultations e.g. annual conventions, workshops, and seminars etc.

Table 2.2: Comparative Benefits of Various Stakeholder Consultations

Benefits	Survey	One on one meetings	Multi-stakeholder consultation
A range of inputs is gathered	√	√	√
Increased stakeholder satisfaction with end result	√	√	√
Opportunity for real dialog		√	√
Opportunity to build consensus			√
Opportunity to build ownership in the plan and its goals		√	√
Diverging participants learn from one another			√
Efficient use of time	√		√
Inexpensive if travel required	√		

Source: Melton (2002)

2.140.3 Collaboration/Dialogues:

Inter-agency collaboration is working together of organizations to realize shared goals. The need for collaboration among agencies with shared goals and objectives cannot be over emphasized. This is because it will provide the agencies with the opportunity to consider functions that cut across them and to resolve conflicts.

Meanwhile to have effective collaboration, dialogue and negotiation are is required. Antonio (2005) opined that sometimes coordination is difficult because there are not enough opportunities for organizations to engage in real dialogue and negotiations among themselves at an early point in the planning process. The resultant effect of lack of dialogue is outgrowth of disagreement and conflicts. It is worth of note to understand that overlapping of roles and responsibilities can cause confusion or even conflicts and these need to be negotiated through collaborative efforts and dialogues.

2.140.4 Coordination:

Coordination is necessary in order for agencies to minimize duplication of effort, services, and reduction of redundancy.

2.140.5 Cooperation:

Is an act of working together in united effort of labour. It is joint operation.

2.150 EXPERIENCE LEARNT FROM THE LITERATURE REVIEW

Summary of the experience learnt from the literature review is thus:

(i) The review of literature was useful in identifying the methods of urban transport integration which include; physical integration, operational integration, and institutional (organizational) integration. This served as a basis for which the researcher considered the institutional aspect for this study.

(ii) Through literature review the benefits derived from an integrated urban transport system were identified and these include: improved safety/accident reduction, better traffic flow, greater user satisfaction, faster construction recovery, low travel cost, and better travel information.

(iii) The review of literature was also relevant in identifying the main models of urban transport system which include: the traditional model with overlapping management by various sectors, integrated urban-rural transport management, and the one city, one transport authority model. This was useful in making recommendation for improving the performance of urban transport institutions in the study area.

(iv) Also the review of literature was relevant in identifying the problems that restrict transport development in cities as including: decentralized administrative bodies with obvious contradictions, administration with low administrative efficiency, incomplete communication and coordination mechanisms and incomplete supervision mechanisms.

(v) It also revealed the main principles of effective urban transport institutional framework of management include: clear obtainment of objectives, well defined working procedures, adequate resources, accountability, public participation, and decentralization of functions (separation of functions). This was also useful in making recommendation for the study area.

(vi) The methods of participation among urban transport agencies were identified by the literature review to include: public hearing, community forum, focus/user groups meetings, task force formation, social survey, consultative forum, workshop and interactive website. This was useful in development the indicators for assessment and the instrument for data collection (questionnaire)

(vii) The need/importance of integrative coordination were identified to include: it results to effective coordination of different agencies, settlement of conflicts by the coordinating agency, better productivity, and better compliance to rules and regulations.

(viii) The main indicators for assessing integration of transport agencies as identified by the review of literature are; collaboration/dialogue, consultation and information exchange.

However, it should be noted that the review of the concept/models and characteristics of urban transport system is useful in understanding the basic ideas about urban transport in the context of this research. The review of types and benefits of integrated transport system provided means for understanding the nature of and establishing the need for the study.

The literature on Principles and indicators of integrative coordination provided the platform for which evaluation of the institutions was made public for the study area.

The empirical studies of urban transport in some cities of the world will be useful in developing a suitable management framework for urban transport system in Kaduna Metropolis.

CHAPTER THREE

3.00 RESEARCH METHODOLOGY

3.10 INTRODUCTION

The methodology for this research was developed based on the following stages; research approach, types/sources of data required, indicators for measuring integration of the institutions involved in urban transport management, methods of data collection, scale of measurement, methods of data analysis, and data processing/analysis.

3.20 RESEARCH APPROACH

Two main research approaches according to Morris (2007) can be used for research; the quantitative approach, and qualitative approach. This research adopted both the qualitative and quantitative approaches. This is because both the semantic and numeric formats of data analysis were employed whereby free response questions type (open-ended questions) was quantified. The descriptive statistics was used for quantitative analysis. In the qualitative analysis, the content analysis was used in reducing qualitative information to numerical terms.

3.30 AREA OF THE STUDY

The study was carried out in the following organizations in Kaduna Metropolis:

The service provision institutions which are; Kaduna State Transport Authority (KSTA), Nigeria Labour Transport Services (NLTS), National Union of Road Transport Workers (NURTW), Okada Riders Association and National Association of Road Transport Owners (NARTO). The infrastructure provision/Maintenance

Agencies; Federal Ministry of Works, Federal Road Maintenance Agency (FERMA), Kaduna State Ministry of Works and Housing, Kaduna State Public Works Agency (KAPWA), Kaduna North, Kaduna South, Chikun, and Igabi Local Government Areas (Works Department); and the Regulatory or Enforcement Agencies which include; Federal Road Safety Commission of Nigeria (FRSC), the Nigerian Police Force, Traffic Wardens, and Vehicles Inspection Division (VID)

3.40 **POPULATION OF THE STUDY**

The population of the study comprised all the representatives of the institutions/agencies as afore listed. Seventeen (17) institutions/agencies were considered as being those with direct or indirect mandate for urban transport responsibility in the study area. These 17 institutions/ agencies therefore constitute the population of the study for which questionnaires were administered to the Heads of these institutions or their representatives based on a purposive (judgmental) sampling.

3.50 **TYPE AND SOURCES OF DATA REQUIRED FOR THE STUDY**

Types of data required for this study were in line with the objectives for the study. Data were obtained from the questionnaire responses and from published and unpublished materials such as; published and legal documents (Constitution, Policies, statutes/acts, and guidelines); textbooks, journals, and research reports as well as internet search. Table 3.1 indicates types and sources of data required for the study.

Table 3.1: Types and Sources of Data Required for the Study

Objectives	Data Required/types	Data Sources	Method of Data Collection	Method of Data Analysis
To review the concepts, strategies and indicators for assessing the nature of inter-relationship among transport institutions/agencies in urban areas	Case studies of urban transport institutions	Internet, published/unpublished literatures	Literature review	Narrative summary analysis (Threading)
	<ul style="list-style-type: none"> - Concepts, classification, models, and characteristics of urban transport in some cities of the world - Urban transport institutions and their responsibilities in some cities - Problems faced by urban transport organizations - Principles of effective urban transport management institutions - Nature and importance of integrative coordination - Indicators for assessing the activities of organizations based on organizations based on integrative coordination - Case studies on the provision and management of urban transport 	Internet, published/unpublished literatures	Literature review	Narrative summary analysis (Threading)
To identify the existing institutional framework for urban transport in Kaduna Metropolis	- The Structure of the institutions (Federal, State, Local Governments and Private)	From the institutions themselves viz; service provision, infrastructure provision, and regulatory or enforcement agencies.	Semi structured questionnaire	Textual
To identify the roles/responsibilities of the institutions/agencies involved in urban transport services and management in Kaduna Metropolis	<ul style="list-style-type: none"> - Practical roles and responsibilities of urban transport institutions i.e. identification of agencies responsible for: <ul style="list-style-type: none"> *coordination * Inspection of road worthiness * Registration, licensing and permit * Fare control (regulation) * Traffic control * Ensuring safe operations/ enforcement of laws and standards and monitoring (controlling overloading, over speeding, wrong over taking, and parking) 	- From the institutions themselves viz; service provision, infrastructure provision and regulatory or enforcement agencies	- Semi structured questionnaire and the structured observation checklist	Textual
To examine the nature of inter-relationship among the institutions/agencies responsible for urban transport operations in the study area	<ul style="list-style-type: none"> - Inter-relationship (integrative coordination) in terms of: <ul style="list-style-type: none"> * Inter-agency role relationships * Information exchange/ communication * Consultation with stakeholders * Collaboration/ Dialogue and negotiation 	- From the institutions themselves viz; service provision, infrastructure provision and regulatory or enforcement agencies	Semi structured questionnaire	Frequency, mean scores, grand mean and textual
To determine the implications of the absence of an integrated urban transport operations in Kaduna Metropolis	<ul style="list-style-type: none"> - Various problems caused as a result of absent of integration among the organizations in the areas of: <ul style="list-style-type: none"> * Planning * Service/infrastructure provision * Service operation * Service regulation 	- From the institutions themselves viz; service provision, infrastructure provision and regulatory or enforcement agencies	- Semi structured questionnaire, and the structured observation checklist	Frequency, mean scores, grand mean and textual
To propose a management framework for integrating the institutions responsible for urban transport system in Kaduna Metropolis	<ul style="list-style-type: none"> - Opinions on the strategies for remedying the problems - Best practices management frameworks 	<ul style="list-style-type: none"> -- From the institutions themselves viz; service provision, infrastructure provision and regulatory or enforcement agencies - From Internet, published/unpublished literatures 	<ul style="list-style-type: none"> - Semi structured questionnaire - Literature review 	<ul style="list-style-type: none"> - Free response questions type (Open ended questions) - Narrative summary analysis (Threading)

Source: Author's Field 2012

3.60 **INDICATORS FOR EVALUATING INTEGRATION AMONG URBAN TRANSPORT INSTITUTIONS/AGENCIES IN KADUNA METROPOLIS:**

The indicators employed in evaluating the level of integration among urban transport institutions/agencies are; inter-agency role relationships, consultation, exchange of Information among institutions/agencies, collaboration/dialogue as detailed out on Table 3.2. The reason for the choice of these indicators is because the research is basically concerned with studying the current phenomena so as to develop a framework for improvement. The indicators were used for evaluating the issues in research question (c) as reflected in objective (e).

Table 3.2: Indicators for Evaluating Integration of Urban Transport Institutions in Kaduna Metropolis

Concepts	Integration Indicators	Attributes of Integration (Description)	Tools of Measurement
Co-ordination among institutions (Horizontal Inter-agency relationship)	Inter-agency role relationships	- Mutual inter-dependency in carrying out their roles/responsibilities	Free response (open ended) questions
	Consultation among organizations	- Regular stakeholders joint meetings to discuss issues of mutual interest - Regular participation in stakeholders workshops, seminars and other fora to exchange knowledge	Multiple choice questions (the Modified Likert Scale questions type)
	Exchange of Information among organizations	- Availability of Internet services/ Interactive website - Regular use of ICT for information dissemination among organizations (internet and telephone services), - Regularity of inter- organizational correspondences (written communication) - Regular use of mass media for dissemination of information -Regular dissemination of public transport information through campaigns to raise awareness	
	Collaboration/Dialogue	- Clearly defined roles and responsibilities of the organizations - Ability to abide by the specified task - Complying with joint decisions - Negotiations	

Source: Author (2012)

3.70 METHODS OF DATA COLLECTION

Since the study is a combination of both quantitative and qualitative research type, a combination of methods was used to collect the necessary data. Three basic instruments for data collection were employed for the study – the semi-structured questionnaire, the Participant Observation and document review (literature review). The review of literature was made on the concepts, and strategies of public transport in some cities of the world. Also the review of indicators for assessing integration among urban transport institutions was made. The qualitative data were collected by administration of semi-structured questionnaire to heads or representatives of agencies on ideas, opinions, and experiences. Semi structured questionnaire are semi open ended questions which the respondent is both allowed to supply answers without being constrained by fixed set of possible responses in some questions and is limited to fixed responses in some others. This method provides information about the agencies' attitudes, their values, and what they think or do.

In order to get first hand information for the study a variety of questioning techniques were employed in developing the questionnaire and these included the use of open-ended questions to allow participants to define and describe a situation, closed-ended questions to obtain specific information or to confirm a fact or opinion and probing questions to explore responses. That is to say the questionnaire consisted of a combination of series of closed-ended questions with boxes to tick/scale to rank, and open-ended questions for more in-depth opinion. However since the methodology is based on both quantitative and qualitative inquiry, some of the responses to the open-ended questions were quantified during the analysis stage. The Participant observation

was done by viewing and monitoring phenomenon based on predetermined checklist and recording same.

(a) The Questionnaire Administration Method:

The semi structured questionnaires were issued to each head of the concerned institutions or their representatives for their responses. The following institutions/Agencies (as contained in Table 3.3) were served with questionnaires and interviewed:

Table 3.3: Institutions/Agencies Questionnaires Were Administered to.

Name of Institutions/Agencies	Category
KSTA	Service Provision Agencies
NLTS	
N.U.R.T.W	
Okada Riders Association	
NARTO	
Federal Ministry of Works & Transport	Infrastructure Provision/ Maintenance Agencies
FERMA	
Kaduna State Ministry of Works & Transport	
KAPWA	
Kaduna North L.G.A	
Kaduna South L.G.A	
Chikun L.G.A	
Igabi L.G.A	Regulator or Enforcement Agencies
FRSC	
Traffic Warden	
Vehicles Inspection Division	

Source: Author (2012)

(b) Participant Observation Method:

Observation is the gathering of primary data by investigator’s own direct observation of relevant people, actions and situations by viewing or seeing without asking from the respondents. Observation can also yield information which people are normally unwilling or unable to provide hence provides data on what actually happens.

Therefore in this study additional data on urban transport infrastructure, problems of urban transport operation, and users’ satisfaction was obtained with simple observation of the situation inside the vehicles, along the road, at bus stops and

terminals. This was done by viewing phenomena and assessing them using checklist schedule method. The observation method will supplement the questionnaire method.

However the observation was made without the operators or users of the system knowing that they were being studied, so as to observe normal actions; and to comprehend how the system really works and the users' natural reactions to the daily issues when using the urban transport services.

(c) Review of Literature (Document Review Method):

For this research most of the literature was obtained from published and unpublished materials such as; published legal documents like policies, statutes/acts, and guidelines of urban transport institutions/agencies; textbooks, journals, and research reports as well as internet search. The relevance of the documents was determined based on the objectives of the study.

3.80 DEVELOPING THE DATA GATHERING INSTRUMENTS

(a) Developing the Semi-Structured Questionnaire

The instruments were developed according to sections (consisting of sections A to F)

Section A: This section was meant to gather personal information of the institutions so as to determine the institutions with Separate departments for urban transport system, as well as those with Separate departments for Urban Public Transport. The free response and yes or no questions type were used in this section.

Section B: It consists of questions on the roles and responsibilities of the urban transport institutions, effectiveness of transport institutions in carrying out their roles/responsibilities, conflicts of responsibilities among these institutions/agencies, and measures taken to resolving such conflicts. The multiple options Likert Scale format was used to obtain information in this section.

Section C: This section contained questions on the inter-agency role relationships, collaboration, consultation and exchange of information among urban transport institutions. The two point ordinal scale ('1' representing Yes and '0' representing No) was employed for obtaining information on inter-agency role relationships, while the multiple options Likert scale format was used for obtaining information on collaboration, consultation, and information exchange.

Section D: This section was meant to gather information on the problems of the absence of integrated urban transport operations in the study area. The multiple options Likert Scale questions type was used for this section.

Section E: Section E consists of questions on the strategies for improving the roles and responsibilities of the institutions in the study area. It also used the multiple options Likert Scale questions type.

Section F: Further observations and suggestions made by respondents. This section made use of the free response question format.

The Two Point Scale (Based on ‘Yes’ or ‘No’ Responses)

The Yes and No (represented by ‘1’ and ‘0’ respectively) was employed for obtaining information on inter-agency relationship. The choice of this instrument as one of the instruments for data collection was because it enables the respondents to express the nature of relationship among the institutions/agencies. In establishing the general relationship among the institutions/agencies a two point Ordinal scale (0 and 1) was developed from the free response questions type.) ‘0’ signifies no relationship exists while ‘1’ signifies that relationship exists.

To establish this, a somewhat Matrix Table was developed with the institutions placed both on the vertical and horizontal axis and the responses obtained were merged against same applying the two point scale. Afterward, mean, grand mean and total grand mean scores were obtained and conclusion/inference drawn on the nature of relationship.

The Modified Likert Scale

The choice of Likert Scale as the main instrument for data collection for the study was because it enables the respondents to easily respond to the items. It also allows the researcher to carry out both the qualitative and quantitative approaches effectively with the use of statistics for data interpretation. The Modified Likert Scale ranged from 0 for undecided, to 4 for strongly agree. Description of other levels of the scale can be seen in Table 3.4.

Table 3.4: Rating System for the Modified Likert Scale.

Rating	Description
0	Undecided (UD)
1	Strongly Disagree (SD)
2	Disagree (DA)
3	Agree (A)
4	Strongly Agree (SA)

Source: Nworgu (1988) in Nworgu (1999)

In developing the structured questionnaire based on the modified Likert scale, the variables were listed (see appendix 1) for which the respondents indicated their responses for each after which such responses were ranked accordingly using the rating in Table 3.4.

(b) Developing the Participant Observation Instrument

The checklist was developed by listing all the variables to be observed under each of the elements information was to be obtained. In collecting the observation data, a checklist schedule of the events and behaviours was developed to enable the researcher observe and assess same. The researcher, working from the prepared checklist, recorded the behaviours

(c) Developing the Literature Review Instrument

The Narrative Summary (threading) method of data collection was used for the literature review. Document assessment was made of concepts, strategies, principles, benefits of urban transport system and indicators for assessing the activities of transport institutions in urban areas. The purpose of the document assessment is to identify the relationships between policy and operation of urban transport institutions/agencies.

3.90 VALIDATION OF THE INSTRUMENTS

To establish the validity of the instrument (questionnaire), copies of the draft were given to two lecturers in the department of Urban and Regional Planning, Ahmadu Bello University, Zaria. The instrument was subjected to face validation by the lecturers. The lecturers were required to assess the instrument in terms of clarity, appropriateness, and relevance in addressing the issues of the study.

In order to furthermore test the validity of the questionnaire, a pilot survey was carried out whereby the researcher administered same to five (or 30%) of the supposed respondents or their representatives. These responses were not part of the actual study process and were only used for testing purposes. After the questions had been answered, the researcher asked the respondents for any suggestions or any necessary corrections to ensure further improvement and validity of the instrument. The comments and suggestions/corrections made by both the two lecturers and five respondents were taken into consideration in the final copy of the instrument.

3.100 DATA PROCESSING AND ANALYSIS

Both the qualitative and quantitative methods of data analysis were employed for the study. After the survey was conducted and the 17 completed questionnaires gathered from the respondents, all the total responses for each item were obtained and tabulated. Methods of data analysis employed for the research were the descriptive statistics (such as frequency analysis, percentage distribution, mean scores, grand mean scores and content analysis).

The yes/no response questions type which was meant to collect personal data about the organizations was analyzed by the means of frequencies and percentages. The multiple option questions type (which was based on the modified Likert scale) was used to collect data about secondary interaction among the organizations in the areas of collaboration, consultation and information exchange. These responses were analyzed by the use of frequency, mean scores and grand means. The free response questions type which was used to collect data on the inter-agency role relationship and additional information provided by the respondents were analyzed by means of

content analysis where applicable. The observation checklist which was used to collect data on the problems of transport operations was analyzed using the reporting and description methods. Events and/or behaviours recorded were reported and described and inferences made accordingly.

The data for the study were analyzed according to research questions. The content analysis was used for answering research question (a), and (b); while the descriptive statistics such as the Modified Likert Scale through the application of frequency counts mean scores and grand means were employed for analyzing the data for answering questions (c), (d) and (e).

However, in order to use the Modified Likert scale for interpretation, the variables were calculated for each pair of statements. The rating values were multiplied by frequency (f) of responses to obtain the mean score. The mean score (\bar{x}) was obtained by dividing the sum of the frequencies (f) and the weighted values (x) by the number of respondents (N) – i.e. $\bar{x} = \sum fx/N$. To obtain the grand mean on the other hand, mean scores of the variables were added up and divided by the total number of mean scores. i.e. Grand $\bar{x} = \sum \bar{x}/n$.

Decision Rule for the Modified Likert Scale

In interpreting the processed data obtained based on the modified Likert Scale, a decision rule was employed. Any mean score of the respondents between **2.45** and **4.00** was considered as acceptance (agree), the mean score of respondents between **0.45** and **2.44** as rejection (disagree), while the mean score between **0** and **0.44** was considered as undecided (a situation where the respondents were unable to either

agree or disagree with the variables) as presented in Table 3.5. That is to say, if the score is high it signifies favorable conditions and when it is low or zero, it signifies unfavorable conditions depending on the mode of the questionnaire items.

Table 3.5: Decision Rule for the Modified Likert Scale

Mean Scores	Description
2.45 - 4.00	Acceptance (agree)
0.45 - 2.44	rejection (disagree)
0.00 - 0.44	Undecided

Source: Adapted from Nworgu (1988) in Nworgu (1999)

Decision Rule for the Two Points Scale

In analyzing and interpreting the free response data collected on inter-agency relationship the Two Point Ordinal Scale was used, the decision rule employed was as in see Table 3.6.

Table 3.6: Decision Rule for the Two Points Ordinal Scale

Mean Scores/Grand Mean Scores	Description
0.00 to 0.29	Little Relationship
0.30 to 0.49	Low Relationship
0.50 to 0.69	Moderate Relationship
0.70 to 0.89	High Relationship
0.90 to 1.00	Very high Relationship

Source: Adapted from Okolo (1999)

CHAPTER FOUR

4.00 DATA ANALYSIS/DISCUSSION/PRESENTATION

4.10 INTRODUCTION

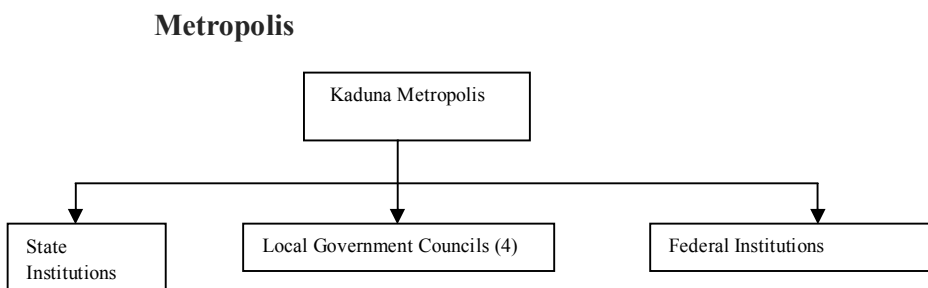
This section analyzed the existing management framework as well as the results from the questionnaires administered to the institutions/agencies with urban transport mandate in the study area for which general opinions were gathered on the subject matter. All the seventeen (17) questionnaires distributed were returned hence the analysis therefore covers the responses of the 17 concerned agencies. The analysis of the data was done based on the research questions thus:

4.20 DATA ANALYSIS BASED ON RESEARCH QUESTION (a): What is the

Institutional Framework for Urban Transport in Kaduna Metropolis?

The Urban transport management framework for Kaduna Metropolis constitutes the functions carried out by the Federal, State Ministries/Agencies, the four Local Councils that form the Metropolitan area and Private providers. (See Figures 4.1, 4.2, 4.3 and 4.4)

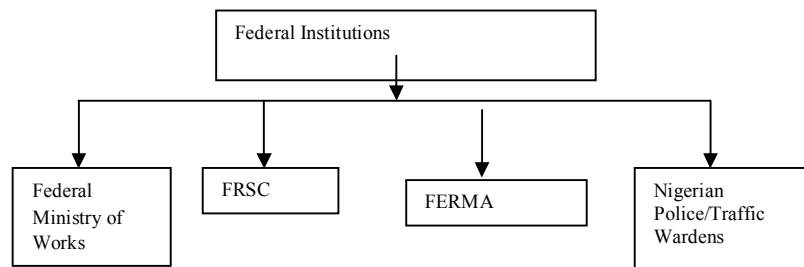
Fig. 4.1: **Broad Institutional Structure for Urban Transport in Kaduna**



Source: Author's field survey, 2012

Figure 4.1 illustrates the set up of the State, Local Councils, and the Federal Institutions with the mandate of urban transport in the study area. It is therefore expedient to understand that the relationship between the Federal, State and Local institutions is a two-way type whereby the Federal institutions do not necessarily receive directives from the State Government, but perform critical urban transport functions within the federal jurisdiction in the area of road construction and maintenance.

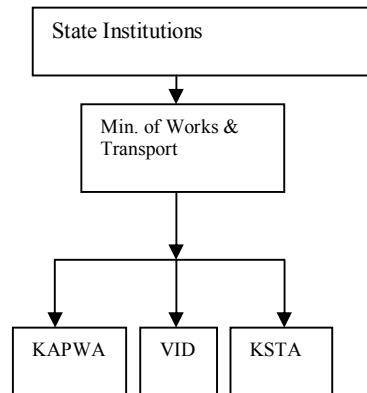
Fig.4.2: Federal Institutions as Stake Holders in Urban Transport in Kaduna Metropolis



Source: Author’s field survey, 2012

Figure 4.2 illustrates the Federal Institutions that have been identified to have a stake in urban transport in Kaduna Metropolis. Coordinating the activities of these institutions with those of the State, Local Governments and the Private becomes difficult as they do not derive their operational guidelines within the state. This therefore indicates that the existing administrative structure will not function effectively as a result of the contradictions in the operations of the State, Local Government and Federal Institutions.

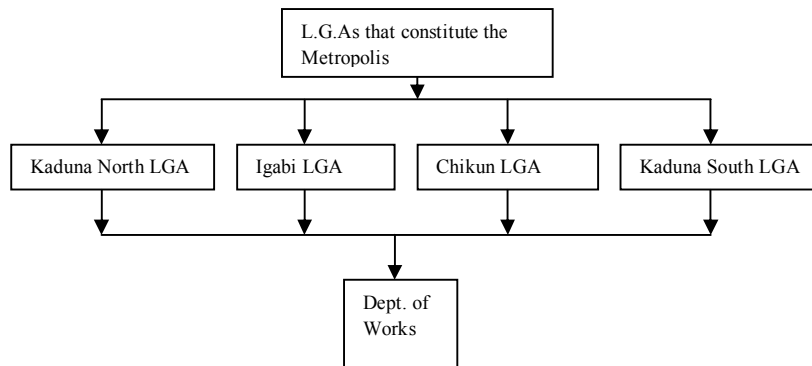
Fig 4.3: State Institutions/Agencies with Urban Transport Mandate in Kaduna Metropolis



Source: Author’s field survey, 2012

Fig.4.3 shows the State Administrative structure for the institutions with urban transport mandate which portrays the independent nature of these institutions from the Federal and State Institutions. This therefore implies that there is lack of integrative coordination, hence the need for improvement.

Fig. 4.4: Local Governments as Stake Holders in Urban Transport in Kaduna Metropolis



Source: Author’s field survey, 2012

Figure 4.4 illustrates the Local Councils Departments that have been identified to perform urban transport role of providing infrastructure (Roads construction and

maintenance). However, the statutory role of the Local Governments in roads, bus stops and motor parks construction and maintenance may not be effective if there is no proper integration with the other institutions.

Merit of the Existing Organizational Structure

The Independent organizational structure makes it easier for the Institutions to carry out their functions and roles, since there would be less bureaucratic bottlenecks.

Demerits of the Existing Organizational Structure

The organizational structures as illustrated in figures 4.1, 4.2, 4.3, and 4.4 are however not without major shortcomings. The identified shortcomings are in the following areas:

1. The existing urban transport institutional framework for Kaduna Metropolis lacks any coordinating body which guides service delivery.
2. There is lack of effective coordination of sectoral activities, since the Federal institutions whose roles, though critical, exist independently of the city transport management framework in terms of coordination and control.
3. It is monopolistic in nature
4. It lacks the coordinating capacities, as well as checks and balances hence may not be very efficient and transparent.
5. It results in duplication of functions which leads to conflicts and overlaps.

4.20.1 Institutions/Agencies with Separate Departments for Urban Transport (Both Public and Private).

Out of the 17 urban transport organizations, 11 were found out to have separate departments for general transport (which have mandate for both public and private transport). See Table 4.1

Table 4.1: **Percentage Distribution of Organizations with Separate Departments/Units dealing with General Urban Transport (both Public and Private)**

Response Type	No. of Organizations	Percentage (%)
Yes	9	53
No	8	47
Total	17	100

Source: Author's Field Survey, 2012

Table 4.1 shows that 9 organizations ((53%)) have separate departments dealing with **urban transport system** while 8 (47%) do not have. It is expedient to note that this finding concerns the general transport (consisting of both public and private). That is to say the finding does not translate to mean that these nine (9) organizations fully undertake public transport services/management but are rather responsible for the general urban transport hence distinct from the findings on Table 4.2

4.20.2 Organizations with Separate Departments for Urban Public Transport (Excluding Private Transport)

Table 4.2 shows the responses on the existence of separate departments for urban public transport. This is however specific to public transport as against the general transport in Table 4.1.

Table 4.2: **Separate Departments Dealing with Urban Public Transport (Excluding Private Transport)**

S/No	Name of Institutions/Agencies	Name of Department	No of Institutions with separate Departments for Public Transport	No of Institutions without separate Departments for Public Transport
1	Kaduna State Transport Authority	-	0	1
2	Nigeria Labour Transport Services	Labour Transport Committee	0	1
3	NURTW	-	0	1
4	Okada Union	-	0	1
5	NARTO	-	0	1
6	Federal Ministry of Works	-	0	1
7	FERMA	Works/Maintenance	0	1
8	Kaduna State Ministry of Works and Transport	Road traffic Dept	0	1
9	KAPWA	-	0	1
10	Kaduna North Local Government Area	Works Department	0	1
11	Kaduna South Local Government Area	Works Department	0	1
12	Chikun Local Government Area	Works Department	0	1
13	Igabi Local Government Area	Works Department	0	1
14	FRSC	-	0	1
15	The Nigerian Police	'B' Department (Transport)	0	1
16	Traffic Wardens	'B' Department	0	1
17	Vehicle Inspection Division	-	0	1
	Total		0	17
	%		0	100

Source: Author's Field Survey, 2012

The analysis in Table 4.2 shows that none of the seventeen (17) Institutions with urban transport mandate has a separate department dealing with **public transport issues**. That is to say the institutions rather have departments that are concerned with both inter and intra urban public transport system as well as the private transport system. This therefore implies that there is need for these Institutions to set specific departments that should handle public transport issues realizing that public transport is a vital element of any city hence requires special attention.

4.30 DATA ANALYSIS BASED ON RESEARCH QUESTION (b): What are the Roles/Responsibilities of the Institutions/Agencies that are Involved in Urban Transport Services and Management in Kaduna Metropolis?

The data for answering this research question is presented in Tables 4.3, 4.4, 4.5 and 4.6. However, it should be noted that some of the roles/responsibilities as presented were extracted from Draft National Transport Policy of Nigeria of 2010, Edicts and Handbooks of the Institutions, and from interviews.

Table 4.3: Main Roles and Responsibilities of the Urban Transport Institutions in Kaduna Metropolis

S/No	Agency	Statutory Roles/Responsibilities (Both formal and informal)	Actual Roles/Responsibilities Performed
1	Kaduna State Transport Authority	Provision of intra and inter urban public transport services	Mostly provision of inter urban transport services
2	Nigeria Labour Transport Services (NLTS)	Provision of intra and inter urban public transport services	Mostly provision of inter urban transport services
3	NURTW	Manage public transport, coordinate drivers, broker between drivers and passengers, and represent drivers at stakeholders for a	Manage public transport, at different levels coordinate drivers, broker between drivers and passengers, and represent drivers at stakeholders forum manage motor parks and bus stops
4	Okada Union	Coordinate Okada Riders	Coordinate Okada Riders and broker between them and enforcement/other agencies
5	NARTO	Coordinate Road Transport Owners /their activities	Coordinate Road Transport Owners/their activities, and management some motor parks
6	Federal Ministry of Works	Construction of new roads and upgrading of existing roads	Occasional Construction of new roads and upgrading of existing road
7	FERMA	Maintenance of federal road	Occasional Routine maintenance of Federal Roads
8	Kaduna State Ministry of Works and Transport	Construction and maintenance of State roads, drainages, streetlight, traffic signs and traffic Signals	Policy formulation and Supervision
9	KAPWA	Construction and maintenance of State roads, drainages, streetlight, traffic signs and traffic Signals	Construction and maintenance of roads , drainages, street light, and traffic signals
10	Kaduna North Local Government	Construction and maintenance of local government roads, bus/car stops, and motor parks	Not fully carrying out such roles and responsibilities as the state government has taken over such.
11	Kaduna South Local Government	Construction and maintenance of local government roads, bus/car stops, and motor parks	Not fully carrying out such roles and responsibilities as the state government has taken over such.
12	Chikun Local Government	Construction and maintenance of local government roads, bus/car stops, and motor parks	Not fully carrying out such roles and responsibilities as the state government has taken over such.
13	Igabi Government	Construction and maintenance of local government roads, bus/car stops, and motor parks	Not fully carrying out such roles and responsibilities as the state government has taken over such.
14	Federal Road Safety Commission	Production of drivers license, testing of drivers license, issuance of drivers license, issuance of certificate of road worthiness/road worthiness validity tag, road and traffic regulation	Production of drivers license, testing of drivers license, issuance of certificate of road worthiness/road worthiness validity tag,, monitoring the use of vehicles, and traffic regulation (control of over- speeding, under age driving), control of reckless driving, and drunk drivers)
15	The Nigerian Police	Provision of Security service	Security, parking control, traffic control, give support and protection during enforcement by other organizations, and provides , arrest traffic offenders
16	Traffic Wardens	Traffic and parking control, investigating causes of accidents	Traffic and parking control, investigating causes of accidents
17	Vehicle Inspection Division	Issuance of road worthiness certificates, issuance of learners permit, checking the soundness of vehicles/inspection of road worthiness,	Issuance of road worthiness certificates, issuance of learners permit, checking the soundness of vehicles/inspection of road worthiness,

Sources: 1. Adapted from the FRN (2010).
2. Author's Field Survey (2012)

The data in Table 4.3 indicate that there is duplication of roles and responsibilities among some of the urban transport Institutions/Agencies (such as Local Government Works Departments, State Ministry of Works and Transport, Federal Road Safety Commission, Vehicle Inspection Division, the Nigerian Police, Traffic Wardens, NURTW and NARTO) which may result to conflicts. This therefore implies that measures should be taken in order to harmonize the responsibilities for the institutions for efficiency

Table 4.4: Mean Responses of the Respondents on their opinion on the effectiveness of Urban Transport Institutions in carrying out their Roles/ Responsibilities.

S/NO	Variables	UD (0)	SD (1)	D (2)	A (3)	SA (4)	N= 17	\bar{x}	Remark
1	Institutions/Agencies are effective in carrying out the following roles and responsibilities:								
	(i) Planning	0	1	6	12	16	35	2.06	Reject
	(ii) Land use control	0	2	10	9	12	33	1.94	Reject
	(iii) Infrastructure provision/maintenance	0	4	6	18	4	32	1.88	Reject
	(iv) Coordination of other urban transport institutions	0	4	6	15	4	29	1.71	Reject
	(v) Routing (either fixed or flexible)	0	2	6	15	4	27	1.59	Reject
	(vi) Registration/licensing	0	3	8	9	12	32	1.88	Reject
	(vii) Driver training and testing	0	4	8	6	8	26	1.53	Reject
	(viii) Road safety education/ campaign	0	1	14	12	4	31	1.82	Reject
	(ix) Regulating the type of vehicles used	0	4	8	15	4	31	1.82	Reject
	(x) Inspection of road worthiness (vehicle Inspection)	0	2	10	15	0	27	1.59	Reject
	(xi) Traffic control	0	3	6	18	8	35	2.06	Reject
	(xii) Fare regulation (fares control)	0	3	12	6	8	29	1.71	Reject
	(xiii) control overloading	0	3	10	6	12	31	1.82	Reject
	(xiv) Control over speeding.	0	3	8	6	16	33	1.94	Reject
(xv) Control Parking	0	3	10	9	16	38	2.23	Reject	
2	Coordinating roles played by the Institution								
	(i) Sharing of peculiar responsibilities to all stakeholders	0	1	8	9	12	30	1.77	Reject
	(ii) Supervisory role	0	1	8	18	12	39	2.29	Reject
	(iii) Organization of training programmes such as seminars/workshops	0	1	4	21	16	42	2.47	Accept
	(iv) Creating effective communication	0	3	4	24	8	39	2.29	Reject
	Grand Mean	1.92							Reject

Source: Author's Field Survey, 2012

The analysis of the variables in Table 4.4 indicates that the respondents disagreed with all the items in 1 (i) to (xv), as well as with items 2(i), (ii) and (iv). They however agreed with item 2 (iii). The grand mean score of the responses is 1.92. This therefore signifies that the institutions are ineffective in carrying out their roles and responsibilities. The finding therefore implies that there is need to adopt measures that will improve the performance of institutions in carrying out their roles and responsibilities.

Table 4.5: Mean Responses of the Respondents on conflict between the urban transport institutions in the Metropolis

S/NO	Variables	UD (0)	SD (1)	D (2)	A (3)	SA (4)	N= 17	\bar{x}	Remark
1	There is conflict of responsibilities between the urban transport institutions in the Metropolis	0	1	2	27	20	50	2.94	Accept
2	The major areas of conflicts between urban transport institutions in Kaduna Metropolis are:								
	(i) Competition for supremacy	0	1	6	27	12	46	2.71	Accept
	(ii) Lack of clear cut jurisdictional boundaries in practice	0	1	6	21	20	48	2.82	Accept
	(iii) Duplication or overlapping of Functions	0	1	2	21	24	48	2.82	Accept
	Grand Mean							2.82	Accept

Source: Author's Field Survey, 2012

The analysis of the variables in Table 4.5 indicates that the respondents agreed with all the items- 1, and 2 (i) to (iii). The grand mean score is 2.82; hence it is therefore concluded that there is duplication responsibilities among most of the urban transport institutions in Kaduna Metropolis. The implication therefore is that there is need to resolve the duplication for efficiency.

Table 4.6: Mean Responses of the Respondents on the Measures taken to Improve Integration between the Urban Transport Institutions in the Metropolis

S/NO	Variables	UD (0)	SD (1)	D (2)	A (3)	SA (4)	N= 17	\bar{x}	Remark
1	Measures have been taken to resolve the	0	2	2	27	0	31	1.82	Reject
2	The measures taken to resolve the conflicts between the institutions are:								
	(i) Separation of functions /division of labour	0	1	0	24	12	36	2.12	Reject
	(ii) Negotiation	0	0	4	24	8	36	2.12	Reject
	(iii) Enhancement of communication	0	2	0	24	16	40	2.35	Reject
	(iv) Building of team work/trust	0	2	4	15	16	37	2.18	Reject
	(v) Problem solving meetings	0	1	2	27	16	45	2.65	Accept
	(vi) Interest adjustment	0	2	4	21	8	35	2.06	Reject
3	The measures taken in resolving the conflicts have been successful	0	2	4	21	4	31	1.82	Reject
	Grand Mean							2.21	Reject

Source: Author's Field Survey, 2012

The analysis of the variables in Table 4.6 shows that the respondents disagreed with items (1, and 2 i-iv) as well as 3 and agreed with item 2 (v); the grand mean score is 2.82. This is therefore concluded that effective measures have not been put in place in order to resolve the conflict and to improve integration of responsibilities amongst the urban transport institutions in Kaduna Metropolis. It therefore implies that there is need to develop measures of resolving the conflicts and improving integration.

4.40 DATA ANALYSIS BASED ON RESEARCH QUESTION (c):

What form of integration (inter-relationship) exists amongst the institutions that are involved in urban transport system in the study area?

The data for answering this research question is presented in Tables 4.7, 4.8, 4.9, 4.10 and 4.11. This section covers four basic areas vis; interagency role relationship (see Table 4.7); collaboration (see Table 4.8), consultation, (see Table 4.9), and exchange of information (see Table 4.10).

Table 4.7: Rating of Inter-Agency Role Relationships among Urban Transport Institutions

Institutions/Agencies	KSTA	NLTS	N.U.R.T.W	Okada Union	NARTO	Fed. Min. of TP	FERMA	Kad Min of Works & Tp	KAPWA	Kad North LGA	Kad South LGA	Chikun L.G.A	Igabi L.G.A	Fed Road Safety	The Nig police	Traffic Wardens	VID	N = 17	\bar{X}	Remark
KSTA	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2	0.12	Reject
NLTS	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	1	7	0.41	Reject
NURTW	0	0	0	0	1	0	0	1	1	1	1	1	1	0	1	1	1	10	0.59	Accept
Okada Union	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	8	0.47	Accept
NARTO	0	0	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	9	0.53	Accept
Federal Ministry of Transport	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0	4	0.23	Reject
FERMA	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	0.12	Reject
Kad. State Min of Works & Transport	1	1	0	1	1	0	0	0	1	0	0	0	0	0	0	1	1	7	0.41	Accept
KAPWA	1	0	0	0	0	0	0	1	0	1	1	1	1	0	0	0	0	6	0.35	Reject
Kad. North Local Govt	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	1	8	0.47	Accept
-noKad. South Local Govt	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	1	8	0.47	Accept
Chikun Local Govt	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	1	8	0.47	Accept
Igabi Government	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	1	8	0.47	Accept
Fed. Road Safety Com.	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	9	0.53	Accept
The Nigerian Police	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	14	0.82	Accept
Traffic Wardens	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	0	0	7	0.41	Reject
VID	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	0	8	0.47/	Accept
N = 17	10	8	10	9	10	3	2	8	9	6	6	6	6	6	7	7	12		G.M = 0.43	REJECT
\bar{X}	0.59	0.47	0.59	0.53	0.59	0.18	0.12	0.47	0.53	0.35	0.35	0.35	0.35	0.35	0.41	0.41	0.71	G.M = 0.43	The Overall Grand Mean score = 0.43 + 0.43/2 = 0.43	
Remark	Accept	Accept	Accept	Accept	Accept	Reject	Reject	Accept	Accept	Accept	Accept	Accept	Accept	Reject	Reject	Reject	Accept	REJECT	Reject hence there is low relationship based on the decision rule on Table 3.6	

Source: Author’s Field Survey, 2012

‘0’ (No) – Means there is no Relationship; while ‘1’ (Yes) – means there is relationship. However the inter-agency relationship was further established using the mean and grand mean scores as computed in Table 4.7.

The Grand Means scores for both the horizontal and vertical relationship of 0.43 as reported in Table 4.7 were obtained for the institutions. Also the Overall Grand mean score of (being the mean of the two grand mean scores) is 0.43 for the urban transport inter-agency role relationships in Kaduna Metropolis in Table 4.7 signifies that the relationship is **low** based on the decision rule in Table 3.6 which indicates that the ratings between 0.30 to 0.49 indicates low relationship.

This therefore implies that there is little integration among these institutions, hence may find it difficult to realize the goal and objectives of urban transport in the Metropolis. Therefore it is necessary to develop a management framework that will integrate these agencies so as to improve the situation.

Table 4.8: Mean Responses of the Respondents on Collaboration among Urban Transport Institutions/Agencies

S/No	Variables	UD	SD	D	A	SA	N= 17	\bar{x}	Remark
1	Your activities need to be properly coordinated with the activities of other institutions?	0	0	2	30	24	56	3.29	Accept
2	The following means by which the activities of Institutions can properly be integrated are obtainable in the Metropolis:								
	(i) There is an integrated transport Plan for the area	0	8	14	6	0	28	1.65	Reject
	(ii) A Coordinating Agency	0	9	12	6	0	27	1.59	Reject
	(iii) There is effective inter Agency communication/information sharing	0	6	12	3	0	21	1.24	Reject
	(iv) Constant inter agency meetings, dialoguing and consultation do take place	0	0	0	18	36	54	1.59	Reject
3	Institutions comply with joint decisions taken by stakeholders in the public transport system	0	1	12	6	20	39	2.29	Reject
	Grand Mean							1.94	Reject

Source: Author's Field Survey, 2012

The analysis of the variables in Table 4.8 indicates that the respondents agrees with item 1 and disagreed with all the items in 2 and 3. The grand mean score of the responses is 1.94 hence it indicates that there is low level of collaboration among the

urban transport institutions in the study area. This therefore implies that institutions need to collaborate with each other so as to achieve integration.

Table 4.9: Mean Responses of the Respondents on Consultation among urban Transport institutions/Agencies

S/NO	VARIABLES	UD	SD	D	A	SA	N= 17	\bar{x}	Remark
1	Regularity of formal meetings/consultations among institutions to discuss transport needs and services	0	4	6	18	12	40	2.35	Reject
2	The meetings held by the institutions are usually effective	0	4	6	18	12	40	2.35	Reject
3	There are regular joint workshops/seminars organized by these institutions	0	3	4	15	12	34	2.00	Reject
4	Institutions regularly participate in the joint workshops/seminars	0	5	6	18	0	29	1.71	Reject
5	Some Institutions always absent themselves in the joint meetings, workshops /seminars	0	6	0	0	0	6	0.35	Undecided
Grand Mean								1.75	Reject

Source: Author's Field Survey, 2012

The analysis of the variables in Table 4.9 indicates that the respondents disagreed with items 1 to 4 and were undecided with item 5. However, the mean grand score is 1.75 and this shows that little consultation takes place amongst the institutions with urban transport mandate in Kaduna Metropolis. It therefore implies that there is need for effective consultation among the institutions in order to have an integrated system.

Table 4.10: Mean Responses of the Respondents on Exchange of Information among Urban Transport Institutions

S/NO	VARIABLES	UD	SD	DA	A	SA	N= 17	\bar{x}	Remark
1	There is availability of Internet service/Interactive Website in the Institution	0	2	8	6	12	28	1.65	Reject
2	The use of means of communication to disseminate information to other Institutions								
	(i) ICT (Internet/Telephone)	0	1	2	12	16	31	1.82	Reject
	(ii) Mass Media	0	5	8	18	0	29	1.71	Reject
	(iii) Public awareness campaigns	0	7	8	15	0	30	1.76	Reject
3	Regularity of accessibility of institution to up to date information from other institutions with urban Transport mandate	0	1	4	24	8	37	2.18	Reject
Grand Mean							1.82		Reject

Source: Author's Field Survey, 2012

The analysis of the variables in Table 4.10 indicates that the respondents disagreed with all the items in 1-3. The grand mean score is 1.82 hence it is concluded that there is low level of information exchange amongst the public transport organizations in the study area. This phenomenon therefore implies that there is need to improve information exchange amongst the organizations so as to enhance integration.

4.50 DATA ANALYSIS BASED ON RESEARCH QUESTION (d): What are the Implications of the Absence or Otherwise of an Integrated Urban Transport System in Kaduna Metropolis?

The implications of the absence of an integrated urban transport system in the study area as revealed by participation observation survey are summarized thus:

- 1. Lack of Effective Enforcement of Regulations:** The enforcement of regulations in the area of checkmating over speeding, wrong over taking, wrong parking and overloading is hardly effected in the study area. Throughout the period of the observation survey, no case of arrest was made as regards non violation of the aforementioned rules and regulations. The only noticeable enforcement was in the area of wrong parking where it was observed particularly along Ahmadu Bello Way where some element of enforcement of no wrong parking is enforced in some restricted areas. However effective case of wrong parking enforcement was noticed in areas near parks and military establishment along some major roads in the town.

The implication of this is that there will be congestion and traffic holdups hence effective enforcement of regulations should be undertaken by the concerned agencies to curtail the phenomenon.

2. Problem of Traffic Congestion/Holdups: The participation survey also revealed the problem of traffic congestion/holdups along some roads in the study area. Traffic congestion was vividly noticed between Kano road and Leventis Roundabout, Kawo area near the overhead bridge, Kachia road by Sabo market, and Taiwo road by Kasuwan Barci.

Also the participation survey revealed that some major areas in the study area do witness traffic holdup particularly during peak hours (7-9a.m and 4-6pm) on workdays. The following roads were found out to experience traffic holdup in the morning pick hours: Aliyu Makama road (particularly from Mia Hotel Barnawa to Junction Road by the Station Roundabout), Kachia Road (before Railway Station), Junction road (from Station Round about to Ahmadu Bello Stadium). Another problem area is Kachia road (from Post Office Road Junction to NNPC Junction).

The following roads where found out to experience traffic hold up during the evening pick hours: Ahmadu Bello way (from Leventis Roundabout to Kano road), Junction Road (from Sardauna Crescent to Station Roundabout), Kachia road (from NNPC Junction to Post Office Road. The implication of this finding is that there will be delay in journeys thereby affecting users satisfaction hence measures should be taken to remedy the situation.

3. Accidents: The observation survey revealed that it is very common to witness accidents involving the commercial motor cycles than the other modes of urban transport in the study area. This is due to the reckless manner in which the operators of the commercial motor cycles ride coupled with lack of routing for same. Table 4.11 supports the findings as obtained from the participant observation. The Table shows the cases of accidents in Kaduna Metropolis for three days.

Table 4.11: Number of Accidents per each Mode of Transport (July-September, 2010)

Mode	No. of Cases
Private Cars	48
Buses/Taxis	56
Trailers/Lorries	216
Motorcycles	27
Bicycles	-

Source: Police Traffic Division, Kaduna (in Mustapha 2010)

Since the operators of the commercial motor cycles ride on virtually all the roads in the metropolis at will and based on demand, there is the need for proper routing to be introduced for different modes in the metropolis so as to minimize vehicular conflicts which results to accident particularly as it affects the motor cyclists.

- 4. Lack of Proper Routing:** The study revealed that there is no designated routing in the study area particularly for buses and motor circles. It was revealed that bus and motor cycle services are rendered according to the market forces (demand and supply) without any form of designated routing. The only form of routing for buses is that noticed for buses playing Kasuwa to Kabala Doki, Kasuawa to U/Romi. Furthermore some forms of designated routings were noticed for the mini buses plying U/Dosa and U/Badarawa, as well as the Kabu-Kabu car services playing Kasuwa to K/Mashi, U/Sarki to Malali, Kawo to Sabon Tasha through Namdi Azikiwe Express, Kawo to Mando, Kawo to Rigachikun, Sabon Tasha to Kamazou and Sabon Tasha to NNPC.

The implication of this finding is that lack of proper routing will make some areas of the town suffer as such areas may not have access to public transport in some hours of the day.

- 5. Irregular Transport Fares:** There is usually irregular transport fare in all the modes, except for the train which operates at fixed price at some specified locations or distances. The train however runs from Sabon Tasha to Rigachikun. It is therefore expedient that fares regulation be introduced so as to encourage people to the use of public transport hence reducing traffic congestion and holdups.

The findings of the participation observation survey conducted by the researcher as afore presented were corroborated by the following responses on the problems of transport operation as contained in Table 4.12

Table 4.12: Mean Responses of the Respondents on their Perception of the Problems of Urban Transport Institutions and Operations in the Study Area

S/NO	VARIABLES	UD	SD	D	A	SA	N= 17	\bar{x}	Remark
1	Duplication of roles and responsibilities (overlapping functions)	0	2	6	6	32	46	2.71	Accept
2	Conflicts between institutions with similar functions	0	1	4	33	8	46	2.71	Accept
3	(i) Poor communication	0	0	4	27	16	47	2.77	Accept
	(ii). Lack of negotiation/consensus	0	1	4	27	12	44	2.59	Accept
	(iii) Lack of taskforce or working groups	0	1	8	18	20	47	2.77	Accept
4	Lack of effective enforcement/regulations	0	1	2	27	16	46	2.71	Accept
5	Traffic congestion	0	1	6	27	12	46	2.71	Accept
6	Increase in accidents	0	2	2	33	12	49	2.88	Accept
7	Lack of proper routing	0	1	4	27	8	40	2.35	Reject
8	High & irregular transport fares	0	2	6	24	12	44	2.59	Accept
9	Lack of Users satisfaction	0	1	4	36	8	49	2.88	Accept
10	Lack of intermodal integration	0	0	4	27	16	47	2.99	Accept
	Lack of good planning.	0	1	6	27	12	46	2.71	Accept
11	Lack of sustainability	0	1	6	24	12	43	2.53	Accept
	Grand Mean						2.71		Accept

Source: Author's Field Survey, 2012

The analysis of the variables in Table 4.12 indicates that the respondents agreed with the items in 1 to 6, as well as 8 to 12. They however disagreed with item 7. The grand mean score is 2.71, hence it is concluded that the transport problems as witnessed in the study area are caused as a result of the absence of an integrative coordinated urban transport operation.

4.60 DATA ANALYSIS BASED ON RESEARCH QUESTION (e): What management framework is appropriate for integrating the institutions/agencies involved in urban transport system in Kaduna Metropolis?

The data for answering this research question are presented in Table 4.13

Table 4.13: Mean Responses of the Respondents on the Strategies for improving the roles and responsibilities and integration of the institutions with urban transport mandate

S/No	Variabes	UD	SD	D	A	SA	N= 17	\bar{x}	Remark
1	(i) Effective communication	0	0	2	21	38	61	3.59	Accept
	(ii) Regular stakeholders meetings to share ideas	0	0	0	27	28	55	3.12	Accept
	(iii) Explicit division of responsibilities	0	0	2	33	20	53	3.12	Accept
	(iv) Explicit job description	0	0	0	27	28	55	3.24	Accept
	(v) Effective training to gain ideas	0	1	0	21	32	53	3.12	Accept
2	Do you consider that an integrated transport Plan is needed for Kaduna Metropolis?	0	0	0	24	32	56	3.29	Accept
3	Designation of routes to different modes and vehicles types (routing)	0	0	0	27	28	55	3.12	Accept
4	Designation of bus stops so as to have parking control	0	0	2	33	20	53	2.12	Accept
	Grand Mean							3.09	Accept

Source: Author's Field Survey, 2012

The analysis of the variable in Table 4.13 indicates that the respondents agreed that all the items 1 (i) - (v) to 4 constitute the strategies for improving the roles and responsibilities of the institutions with urban transport mandate. The grand mean

score is 3.09 indicating acceptance of the variables as strategies for improvement. This therefore implies that there is need for the urban transport institutions to adopt such strategies so as to improve their roles and responsibilities.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.10 SUMMARY OF FINDINGS

The detailed analysis carried out in the course of this study revealed a lot of findings.

The summary of these analysis are presented according to research questions thus:

Research Question (a): What is the existing institutional framework for public transport in Kaduna Metropolis?

The study revealed that there exist independent institutions/agencies with urban transport mandate. That is to say there is no coordination particularly between the Federal institutions/agencies, and the State and Local Governments. The Study also revealed that none of the institutions has a separate department or unit dealing with urban public transport. This therefore signifies that duplication functions cannot be avoided hence conflicts must certainly result among some of the institutions.

Research Question (b): What are the roles/responsibilities of the institutions/agencies that are involved in urban transport services and management in Kaduna Metropolis?

The study observed that there is duplication of roles and responsibilities among the urban transport institutions/agencies which often result in conflicts. It was also revealed that the institutions are ineffective in carrying out their roles and responsibilities due to lack of proper coordination as well as duplication of responsibilities among such institutions in Kaduna Metropolis. The measures put in place in resolving the conflicts of responsibilities in the study area have not been effective.

Research Question (c): What form of integration (inter-relationship) exists amongst the institutions/agencies that are involved in urban transport operations in the study area?

The study found out that the inter-relationships among the institutions/agencies in the areas of inter-agency role relationship, collaboration, consultation, and exchange of information are not effective.

Research Question (d): What are the implications of the absence or otherwise of an integrated urban transport system in Kaduna Metropolis?

The study revealed that the transport problems as witnessed in the study area are caused as a result of the absence of an integrative coordinated urban transport operation.

Research Question (e): What management framework is appropriate for integrating the institutions/agencies involved in urban transport system in Kaduna Metropolis?

The study also revealed that among the strategies for improving the roles and responsibilities of the institutions/agencies with urban transport mandate in the study area include; effective communication, explicit division of responsibilities, explicit job description, effective training and development of an integrated transport Plan.

5.20 IMPLICATION OF THE RESULTS

Based on the findings in the exposition made by the study, it is evident that since there is lack of integration among the institutions/agencies with urban transport mandate in the study area, the carrying out of the activities of such transport institutions will not be effective hence affecting the overall urban transport system. This is to say that there is need to integrate these institutions so as to create the avenue

for improving the efficiency of urban transport institutions in the metropolis and to consequently make it a vibrant and competitive city.

5.30 CONCLUSION

The research was designed to evaluate the activities of urban transport institutions/agencies in Kaduna Metropolis with the aim of developing a management framework that will integrate the plethora of agencies involved in the, provision and maintenance, as well as regulation of urban transport in the study area. In the course of the study, it was realized that there are problems militating against effective inter-relationship among the institutions with urban transport mandate in the study area. These problems are in relation to duplication of responsibilities, lack of collaboration, lack of consultation, as well as lack of information exchange. These have resulted to operational problems such as ineffective enforcement of regulations, traffic congestion/holdups, lack of proper routing, and irregular transport fares.

However, if all the problems as revealed by the study are resolved, the activities of urban transport institutions and the operation of the urban transport system will be improved in the study area. On the basis of this, efforts should be made by the government in collaboration with other stakeholders to implement the recommendations.

5.40 **RECOMMENDATIONS**

The recommendation was made based on findings obtained from literature review and from primary surveys/analysis. In the course of the research, evaluation of relationships among the urban transport management institutions were examined and was found out that there is little integrative coordination.

This is evident as the results of both the correlation coefficient and Likert scale rating proved so. These findings and conclusions therefore informed the following suggested recommendations.

1. Since urban transport consists of both public and private institutions, there is need for the institutions to have separate departments or units to deal with urban public transport since public transport plays a key role in the creation of functionality of the urban system. If done, it will create a sense of responsibility hence improve efficiency in carrying out public transport activities.

2. Integrating the institutions is a *sin-qua-non* to a successful urban transport service and infrastructure provision as well as regulatory or enforcement activities. All these different institutions need to be integrated for them to successfully carry out their activities. Inter-agency integrative coordination takes a horizontal approach based on cooperation and coordination amongst agencies and authorities. In order to achieve a comprehensive and effective integration, all agencies and authorities with urban transport mandate need to collaborate, make consultations, cooperate and communicate at all levels. The aim of these is to provide a coherent framework for the operational work, avoiding policy inconsistencies, as well as overlapping of roles and conflicts of functions. Therefore it is recommended that service and infrastructure provision agencies, as well as regulatory or enforcement agencies should work together at all levels to maximize integration. There is need to develop a framework

for integration, including memoranda of understanding, coordination guidelines or rules of procedure for inter-agency collaboration, consultation, and exchange of information.

In order to achieve these, there is need to have a Coordinating Agency to be responsible for coordinating other institutions. This, if done will enable the achievement of the desired goals and objectives of particularly urban public transport system. This is recommended based on the one city, one transport authority model as reviewed for China (see section 2.50). The choice of this model for Kaduna is because it will encourage integrative coordination and inter- agency interaction, since the coordinating agency will be the coordinator of the other institutions.

3. There is need to prepare an integrated and common urban transport plan for common implementation by all stakeholders. This plan will guide policy and coordinate all urban transport matters in the metropolis. The plan should be designed in conjunction with the physical development plan to ensure that land use and transport development is coordinated.

4. The integrated urban transport plan should contain among others the three main types of urban transport integration as identified by Rotter (2010 and Dhungra (2008) as reviewed in section 2.30, which include; physical integration (in terms of integrating transport modes like, buses, taxis, and motor cycles); operational integration (in terms of scheduling and routing of different urban transport modes), and institutional (organizational) integration (by involving the stakeholders in the design, implementation and operating stage).

5. The revitalization of the railway system is necessary so as to be integrated into the current operating public transport system.

6. Collaboration among the institutions should be improved through; proper coordination of the activities of these institutions by the coordinating agency, and to enforce compliance to joint decisions taken by stakeholders.
7. Consultation among the institutions should be improved through; regular holding of formal meetings and participation in joint workshops/seminars by institutions to discuss urban transport issues and to formulate strategies to solving the existing problems and curtailing the future ones.
8. Information exchange should be improved through; the provision of effective means of communication amongst the institutions in the areas of internet/telephone services, mass media, public awareness campaigns, and improving regularity of accessibility of the institutions to up to date information from other institutions/agencies.
9. Specific routes should be designated to different modes and vehicles types. The routing should be done by the coordinating agency in conjunction with the planning agency and all the urban transport service provision institutions. This if done, will curtail the current phenomenon of the routing particularly of public transport being determined by market forces thereby affecting some areas at particular times of the day.
10. There should be designated bus stops and parking sites so as to have effective parking control. The local governments should coordinate the provision of the designated intra urban public transport motor parks, and bus/car stops as well as common parking sites for the private transport.
11. More vehicles should be provided based on the public private partnership initiative model.

12. Roles and responsibilities of the organizations should clearly be defined as proposed in Table 5.1, so as to avoid duplications/overlapping that usually result into conflicts of responsibilities.

13. There must be management structures that will further strengthen the inter-relationship among the institutions for efficient service delivery as proposed in Fig. 5.1, 5.2, 5.3 and 5.4.

However, it should be noted that some of the roles and responsibilities that are contained in the Draft National Transport Policy, as well as the Edits and Handbooks of the Institutions/agencies and which are considered appropriate are retained.

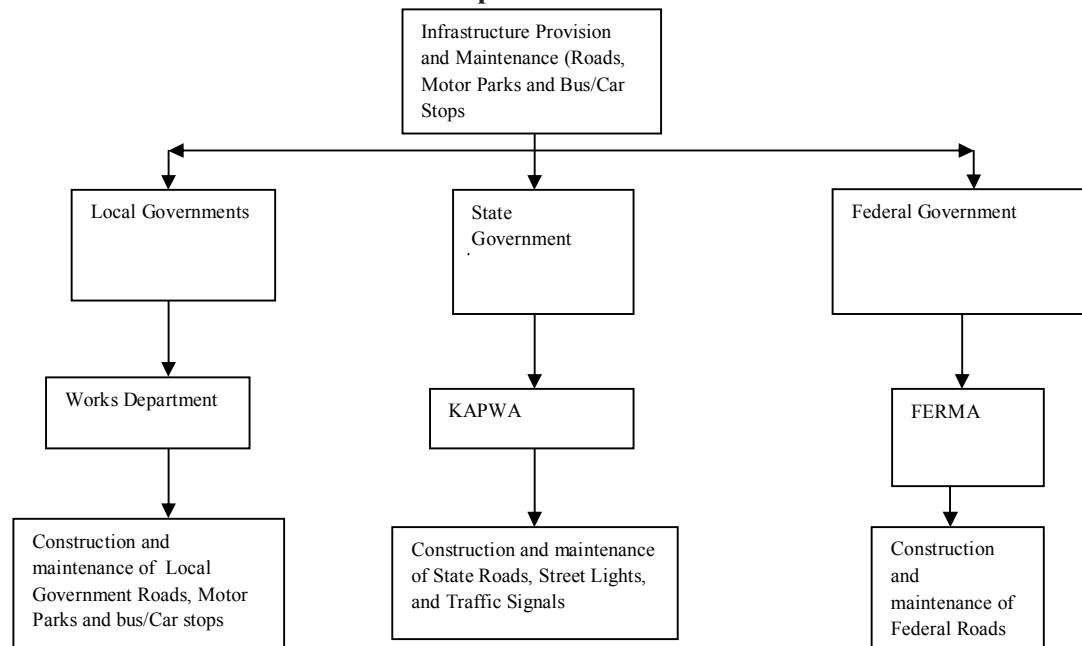
Table 5.1: Proposed Roles and Responsibilities for Urban Transport Institutions in Kaduna Metropolis:

S/NO	ORGANIZATION	ROLE	RESPONSIBILITIES
1	KSTA	Ensuring the provision of public transport services (both intra and inter urban)	*Responsible for fixing of fares and routing in conjunction with other stakeholders *Coordinating the operators to ensure compliance to fixed fares and routing *Coordinating the public transport services in partnership with the Federal Ministry of Transport
2	NLTS	* Liaise with KSTA to provide public transport service	*Partner with State Ministry of Works and Transport in fixing of fares and routing and ensuring compliance
3	FERMA	* Ensuring the maintenance of Urban Federal Road	* Maintenance of Urban Federal Roads on regular basis as against occasionally as is the current practice
4	N.U.R.T.W	* Ensuring the provision of public transport services by private individuals /organizations	* Coordinate the public transport services provided by the private individuals/organizations * Ensure that private operators comply with fixed fares, routing and parking regulations *Ensure discipline among drivers
5	Okada Riders Association	* Ensuring the provision of public motor cycle transport services by private individuals /organizations	* Coordinate the public motor cycle transport services provided by the private individuals/ organizations * Ensure that private motor cycle operators comply with fixed fares, routing and parking regulations * Ensure Discipline among Commercial Okada Riders
6	NARTO	Coordinating Role	* Ensure effective coordination of Road Transport Owners * Liaise with NURTW for effective service delivery
7	Federal Ministry of Works	Ensuring the provision/maintenance of Federal roads within the study area	* Implement the Integrated transport plan at the Federal Government level (federal roads) *Manage and coordinate the Federal roads construction/ maintenance project team *Partner with the State Ministry of Works and Transport in the provision of Public Transport Service.

8	State Ministry of Works	Ensuring the provision/maintenance and the provision of Public Transport Services through KSTA	<ul style="list-style-type: none"> * Implement the Integrated transport plan at the State Government level (State roads) * Manage and coordinate the state roads construction/ maintenance project team * Supervise roads construction/maintenance at the Local Government Level * To empower KSTA to provide efficient public transport service
9	KAPWA	Construction/maintenance of roads	* Coordinating role, and Construction/maintenance of roads
10	Kaduna North L.G.A	* Ensuring the construction/ maintenance of Local Government roads and Bus/Car Stops and motor parks	<ul style="list-style-type: none"> * Liaise with State Ministry of Works, Ministry of Lands, Survey and Country Planning and with KASUPDA as regards the preparation integrated public transport plan. * Implement the Integrated transport plan at the Local Government level * Manage and coordinate the construction/maintenance of local Government roads * Manage and coordinate the construction and maintenance of Bus/Car Stops and Motor Parks
11	Kaduna South L.G.A	* Ensuring the construction/ maintenance of Local Government roads and Bus/Car Stops and motor parks	<ul style="list-style-type: none"> * Liaise with State Ministry of Works, Ministry of Lands, Survey and Country Planning and with KASUPDA as regards the preparation integrated public transport plan. * Implement the Integrated transport plan at the Local Government level * Manage and coordinate the construction/maintenance of local Government roads * Manage and coordinate the construction and maintenance of Bus/Car Stops and Motor Parks
12	Chikun L.G.A	* Ensuring the construction/ maintenance of Local Government roads and Bus/Car Stops and motor parks	<ul style="list-style-type: none"> * Liaise with State Ministry of Works, Ministry of Lands, Survey and Country Planning and with KASUPDA as regards the preparation integrated public transport plan. * Implement the Integrated transport plan at the Local Government level * Manage and coordinate the construction/maintenance of local Government roads * Manage and coordinate the construction and maintenance of Bus/Car Stops and Motor Parks
13	Igabi L.G.A	* Ensuring the construction/ maintenance of Local Government roads and Bus/Car Stops and motor parks	<ul style="list-style-type: none"> * Liaise with State Ministry of Works, Ministry of Lands, Survey and Country Planning and with KASUPDA as regards the preparation integrated public transport plan. * Implement the Integrated transport plan at the Local Government level * Manage and coordinate the construction/maintenance of local Government roads * Manage and coordinate the construction and maintenance of Bus/Car Stops and Motor Parks
14	FRSC	* Production of drivers license, issuance of road worthiness, issuance of learners permit, checking the soundness of vehicles/road worthiness	<ul style="list-style-type: none"> * Production of Drivers license * Testing of drivers license * Road safety education/ campaign * Monitoring of vehicles in areas of wrong over taking, over speeding * Traffic regulation (control of over- speeding, under age driving), control of reckless driving, and drunk drivers)
15	The Nigerian Police	* Security service	* Ensure security on roads, bus/car stops and motor parks
16	Traffic Warden	* Control traffic flow	<ul style="list-style-type: none"> * Vehicles parking control * Traffic control
17	Vehicles Inspection Division	* Ensuring compliance	<ul style="list-style-type: none"> * Issuance of learners permit * Checking the soundness of vehicles/road worthiness

Source: **Author, 2012**

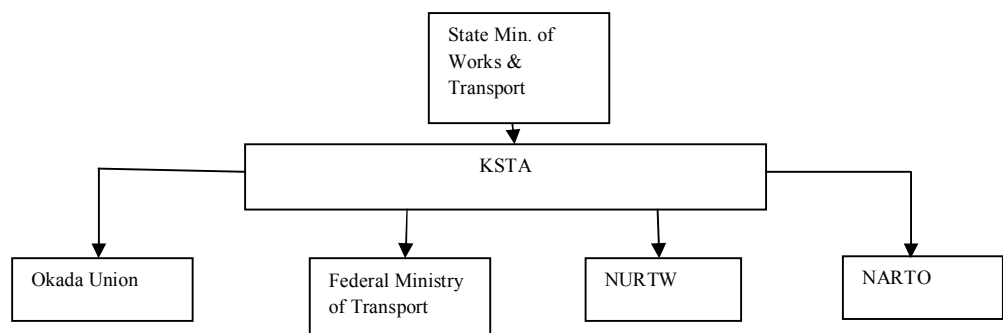
Fig.5.1: Proposed Management Structure for Urban Transport Infrastructure Provision in Kaduna Metropolis



Source: Author, 2012

Fig. 5.1 shows the proposal made as regards infrastructure provision and maintenance by the different institutions with urban transport mandate. It is required that each institution should stick to its role and responsibilities so as to avoid duplications/overlaps and conflicts.

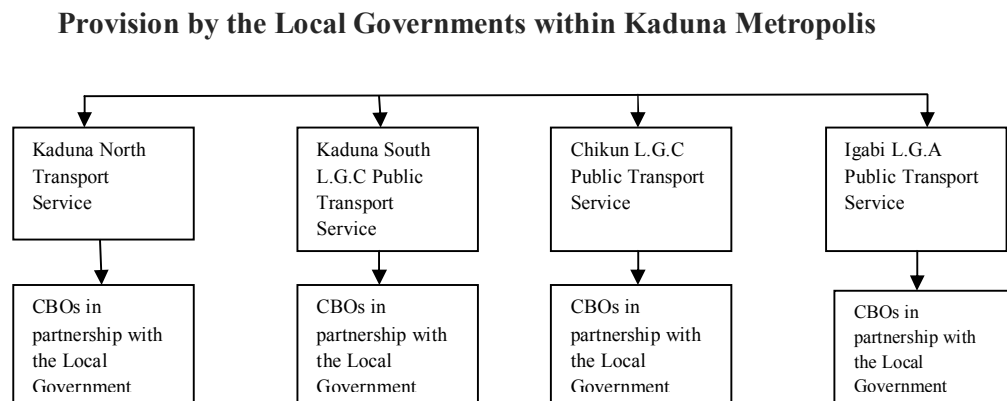
Fig.5.2: Proposed Management Structure for Urban Transport Service Provision in Kaduna Metropolis



Source: Author, 2012

Fig. 5.2 indicates that the public transport service provision organizations will be coordinated by Kaduna State Transport Authority. The Federal Ministry of Transport is to partner with the State and NARTO by providing same with Vehicles or by granting loans for the obtainment of vehicles to be run by KSTA. It may not be viable for the Federal Government, State Government and NURTW to run town service simultaneously hence that will amount to duplication of efforts and responsibilities. However, the private sector and the commercial motor cycles are to be allowed to continue with the direct service provision as currently in practiced, but should be made to comply with any form of routing system that will be put in place.

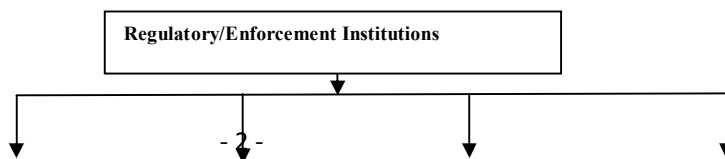
Fig.5.3: Proposed Management Structure for Public Transport Service

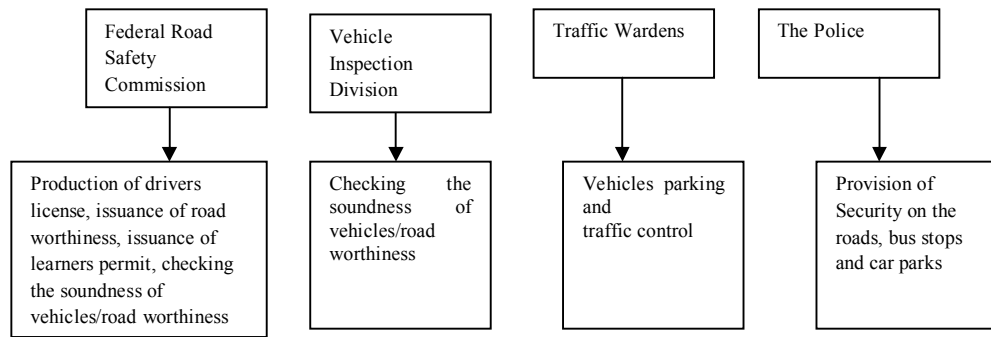


Source: Author, 2012

Fig. 5.3 indicates the proposals made for the Local Governments to run public transport services in conjunction with interested CBOs and other related organizations. This is with the aim at reducing the plead of the Local Government employees in getting to their place of work.

Fig. 5.4: Proposed Management Structure for Urban Transport Regulatory and Enforcement Institutions/Agencies





Source: **Author, 2012**

Fig. 5.4 shows the roles of the Regulatory and enforcement Agencies. It is expected that each of these organizations should strictly operate within its area of jurisdiction to avoid duplication of responsibilities.

5.50 CONTRIBUTION OF THE THESIS TO KNOWLEDGE

The overview of the literature review, findings and discussions described in this thesis has tackled various urban transport problems. From literature review, it was discovered that integrative coordination is required for any system to function well and to fully achieve its objectives. The review of literature also contributed in determining the methods of integrative coordination to include; collaboration, consultation and exchange of information. Furthermore, the review was significant in determining the problems and the strategies towards achieving an integrated public transport system. It is based on the issues as revealed by literature that the questionnaire items were drawn and the questionnaire instrument developed hence used in obtaining data from the respondents.

It is worth to note that these issues as revealed from literature reviews as aforementioned, were corroborated by the findings from the research based on the opinions given by the respondents both through the yes or no responses, multiple option Likert questions, and the free response types. Having understood the nature of the institutions with urban transport mandate in Kaduna Metropolis through literature review, and the findings of the study, the research conclusion and recommendation were made towards integrating the organizations so as to improve their activities.

Therefore, the contribution of the research to knowledge is in relation to the fact that the application of integrative coordination were successfully employed in measuring the inter-relationship among the institutions/agencies with urban transport mandate in Kaduna Metropolis, and the findings however revealed that there is little integration amongst them. The revelation therefore has gone beyond the earlier findings of similar studies which have been piecemeal in scope where as their focus had been either on inter-modal organization, inter administrative agencies, inter planning agencies, or on inter service/infrastructure provision agencies. Further contribution of this research is also in the area of the gap created in literature, hence the need for studies to be carried out to fill this gap as suggested in section 5.6.

5.60 AREAS OF FURTHER RESEARCH

This research is an initial step in developing an integrated and effective urban transport operation in urban areas. Due to the scope of the issue and the limitations of the study, the results were not able to represent the generalized situation for all urban centers in Nigeria. This study only looked at the experience of Land based urban transport institutions/agencies in Kaduna as a medium sized town. However, further studies could focus more on the following areas:

1. There is need for an all embracing study that will consider all the urban transport system such as land, water and air.
2. A research is required for either the small sized city or a large sized one, or both in order to verify the claims made by the results for Kaduna being a medium sized city.
3. Also a comparative study of the urban transport is required between the small sized city and its medium or large sized counterpart for the purpose of comparative analysis.

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APPENDIX 1:

QUESTIONNAIRE FOR EVALUATION OF THE INSTITUTIONAL FRAMEWORK OF URBAN TRANSPORT IN KADUNA METROPOLIS

NAME OF INSTITUTION/AGENCY: _____

PREAMBLE

The bearer (Galadima Abok) an M.Sc Student in Urban Management in the Department of Urban and Regional Planning, Ahmadu Bello University, (A.B.U), Zaria is currently carrying out a research on the ‘Evaluation of the Institutional Framework of Urban Transport in Kaduna Metropolis’. Please assist him by appropriately responding to the questionnaire items, as your honest responses will be very helpful in our mission to carry out a successful research. The exercise is purely an academic one and your responses will be treated confidentially.

Thank you in anticipation of your cooperation.

Galadima, Abok.

INTERVIEW GUIDE

Answer the questions in Sections B, C, D, E and F by ticking the appropriate options.

Key to Sections B, C, and D:

UN- Undecided (0 point)

SD - Strongly disagree (1 point)

D- Disagree (2 points)

A- Agree (3 points)

SA- Strongly agree (4 points)

SECTION A: Organizational Personal Data

1. How many Departments/Units does your Institution have? _____
2. Do you have a separate Department/Unit dealing with urban public transport? **Yes()/ No ()**
3. If yes, which Department(s) _____

Section B (i): Checklist for Roles and Responsibilities of Institutions/Agencies (Indicate for Your Institution only)

S/No	Agency	Statutory Roles/Responsibilities (Both formal and informal)	Actual Roles/Responsibilities Performed
1	Kaduna State Transport Authority		
2	Nigeria Labour Transport Services (NLTS)		
3	NURTW		
4	Okada Union		
5	NARTO		
6	Federal Ministry of Works		
7	FERMA		
8	Kaduna State Ministry of Works and Transport		
9	KAPWA		
10	Kaduna North Local Government		
11	Kaduna South Local Government		
12	Chikun Local Government		
13	Igabi Government		
14	Federal Road Safety Commission		
15	The Nigerian Police		
16	Traffic Wardens		
17	Vehicle Inspection Division		

Section B (ii) Checklist for effectiveness of Urban Transport Institutions in carrying out their Roles/ Responsibilities.

S/NO	Variables	UD (0)	SD (1)	D (2)	A (3)	SA (4)
1	Institutions/Agencies are effective in carrying out the following roles and responsibilities:					
	(i) Planning					
	(ii) Land use control					
	(iii) Infrastructure provision/maintenance					
	(iv) Coordination of other urban transport institutions					
	(v) Routing (either fixed or flexible)					
	(vi) Registration/licensing					
	(vii) Driver training and testing					
	(viii) Road safety education/ campaign					
	(ix) Regulating the type of vehicles used					
	(x) Inspection of road worthiness (vehicle Inspection)					
	(xi) Traffic control					
	(xii) Fare regulation (fares control)					
	(xiii) control overloading					
	(xiv) Control over speeding.					
	(xv) Control Parking					
2	Coordinating roles played by the Institution					
	(i) Sharing of peculiar responsibilities to all stakeholders					
	(ii) Supervisory role					
	(iii) Organization of training programmes such as seminars/workshops					
	(iv) Creating effective communication					

Section B (iii) Checklist for Conflict between the Urban Transport Institutions in the Metropolis

S/NO	Variables	UD (0)	SD (1)	D (2)	A (3)	SA (4)
1	There is conflict of responsibilities between the urban transport institutions in the Metropolis					
2	The major areas of conflicts between urban transport institutions in Kaduna Metropolis are:					
	(i) Competition for supremacy					
	(ii) Lack of clear cut jurisdictional boundaries in practice					
	(iii) Duplication or overlapping of Functions					

Section B (iv) Checklist for Measures Taken to Improve Integration between the Urban Transport Institutions in the Metropolis

S/NO	Variables	UD (0)	SD (1)	D (2)	A (3)	SA (4)
1	Measures have been taken to resolve the conflicts					
2	The measures taken to resolve the conflicts between the institutions are:					
	(i) Separation of functions /division of labour					
	(ii) Negotiation					
	(iii) Enhancement of communication					
	(iv) Building of team work/trust					
	(v) Problem solving meetings					
	(vi) Interest adjustment					
3	The measures taken in resolving the conflicts have been successful					

Section C (i): Checklist for Inter- Role Relationships among Institutions with Urban Transport Mandate. Indicate '0' for No Relationship and '1' for there is Relationship between your Institution and others.

Institutions/Agencies	KSTA	NLTS	N.U.R.T.W	Okada Union	NARTO	Fed. Min. of TP	FERMA	Kad Min of Works & Tn	KAPWA	Kad North LGA	Kad South LGA	Chikun L.G.A	Igabi L.G.A	Fed Road	The Nig police	Traffic	VID
KSTA																	
NLTS																	
NURTW																	
Okada Union																	
NARTO																	
Federal Ministry of Transport																	
FERMA																	
Kad. State Min of Works & Transport																	
KAPWA																	
Kad. North Local Govt																	
-noKad. South Local Govt																	
Chikun Local Govt																	
Igabi Government																	
Fed. Road Safety Com.																	
The Nigerian Police																	
Traffic Wardens																	
VID																	

Section C (ii): Checklist for Collaboration among Urban Transport Institutions

S/No	Variables	UD (0)	SD (1)	D (2)	A (3)	SA (4)
1	Your activities need to be properly coordinated with the activities of other institutions?					
2	The following means by which the activities of Institutions can properly be integrated are obtainable in the Metropolis:					
	(i) There is an integrated transport Plan for the area					
	(ii) A Coordinating Agency					
	(iii) There is effective inter Agency communication/information sharing					
	(iv) Constant inter agency meetings, dialoguing and consultation do take place					
3	Institutions comply with joint decisions taken by stakeholders in the public transport system					

Section C (iii): Checklist for Consultation among urban Transport institutions

S/NO	VARIABLES	UD (0)	SD (1)	D (2)	A (3)	SA (4)
1	Regularity of formal meetings/consultations among institutions to discuss transport needs and services					
2	The meetings held by the institutions are usually effective					
3	There are regular joint workshops/seminars organized by these institutions					
4	Institutions regularly participate in the joint workshops/seminars					
5	Some Institutions always absent themselves in the joint meetings, workshops /seminars					

Section C (iv): Checklist for Exchange of Information among Urban Transport Institutions

S/NO	VARIABLES	UD (0)	SD (1)	D (2)	A (3)	SA (4)
1	There is availability of Internet service/Interactive Website in the Institution					
2	The use of means of communication to disseminate information to other Institutions					
	(i) ICT (Internet/Telephone)					
	(ii) Mass Media					
	(iii) Public awareness campaigns					
3	Regularity of accessibility of institution to up to date information from other institutions with urban Transport mandate					

Section D: Checklist for Problems of the Absence of Integrated Urban Transport Operations

S/NO	VARIABLES	UD (0)	SD (1)	D (2)	A (3)	SA (4)
1	Duplication of roles and responsibilities (overlapping functions)					
2	Conflicts between institutions with similar functions					
3	(i) Poor communication					
	(ii) Lack of negotiation/consensus					
	(iii) Lack of taskforce or working groups					
4	Lack of effective enforcement/regulations					
5	Traffic congestion					
6	Increase in accidents					
7	Lack of proper routing					
8	High & irregular transport fares					
9	Lack of Users satisfaction					
10	Lack of intermodal integration					
	Lack of good planning.					
11	Lack of sustainability					

Section E: Checklist of Strategies for Improving the Roles and Responsibilities and Integration of the Institutions with Urban Transport Mandate

S/No	Variables	UD (0)	SD (1)	D (2)	A (3)	SA (4)
1	(i) Effective communication					
	(ii) Regular stakeholders meetings to share ideas					
	(iii) Explicit division of responsibilities					
	(iv) Explicit job description					
	(v) Effective training to gain ideas					
2	Integrated transport Plan is needed for Kaduna Metropolis?					
3	Designation of routes to different modes and vehicles types (routing)					
4	Designation of bus stops so as to have parking control					

SECTION F: General Opinion/Suggestions on the strategies for integrating the involved in Urban Transport in Kaduna Metropolis

- What is your opinion about Urban Transport System in Kaduna Metropolis?

- What do you think must be done in order to improve the present roles and responsibilities of the Institutions with urban transport mandate?

- What do you suggest should be done in order to integrate the institutions/agencies involved in Urban Transport in Kaduna Metropolis?
