ANALYSIS OF LIVELIHOOD IMPACT OF COMMERCIAL MOTORCYCLE RIDERS IN BIDA, NIGER STATE

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ABSTRACT

Poor transportation system and inadequate means of transports have forced urban residents to take succour in paratransit. Livelihood is inevitable in the existence of human being. Commercial motorcycle riding is one of the fast growing livelihood strategies among poor or low income youths in the city. However, commercial motorcycle riding is an informal economic activity, and therefore, a marginal livelihood. This study, therefore, aim to analyse the livelihood impacts of commercial motorcycle riding in Bida. The main objectives of the study were to examine the socioeconomic status of the riders, spatial characteristics of commercial motorcyclist, operation services of commercial motorcyclist, livelihood activities of commercial motorcycle operators and the relationship between operation activities and livelihood wellbeing of operators. The study used non-probabilistic sampling approach; a convenience sampling technique was employed during the administration of the questionnaires to the riders. A total number of 215 copies of the questionnaires were administered to the riders and the data collected were analysed through descriptive statistics. The study findings show that commercial motorcycle riding is essentially male livelihood activity (100%) which provide job directly to majority of the riders. Eleven main commercial motorcycle parks were identified while Esso neighbourhood and poly area have more parks with three each averagely. It was also revealed that, majority of the riders engaged in full time operation and all the commercial motorcycle riders perceived the business as a satisfactory livelihood strategy. The result found that there is a statistically significant difference in the income of the commercial motorcycle riders before and after they joined the business ($X^2 = 150.457$, df = 40, p = <0.005). It was also found that there is a strong and positive relationship between operation of commercial motorcycle and livelihood wellbeing ($R^2 = .714$; df = 26; p = <.005). The study concluded that, commercial motorcycle operation contributes significantly to livelihood improvement of the operators and facilitate movement of individual, hence increase social integration in the study area. The study therefore recommends that the government should formalize and regulate the activities of commercial motorcycle operation as one of the means of living activities that fill the gap of youth employment problem. Provision of support in terms of loans to the operators of commercial motorcycle especially for those riders who hire/lease their motorcycles is also suggested. These will contribute to the reduction in unemployment and poverty rates in all forms.

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to the Study

Livelihood is about the way people earn and mobilize resources that make them to exist, either in the urban or non-urban areas. It comprises things which make human being have the requirements for living like food, water and housing (Young *et al*., 2002; UNHCR, 2014) and as observed by De Haan *et al.* (2002) this is not as similar as acquiring a permanent job. However, deducing out of Chambers and Conway (1992), livelihood consist of abilities, assets and human activities need for existence: livelihood is sustainable if it is able to withstand and regain out of pressure and tremors, sustain or improve the abilities and properties, make possible sustainable livelihood chances towards next generation and which provides to different livelihoods both at global, continental, regional, national and local levels for a specific period.

Livelihood outcomes attained by the less privilege (poor) follow their utilization of properties within agreed set of organizational terms (De Haan *et al.,* 2002). Some part of transportation infrastructure and services are element of both the less privilege property base organizational concept which assists to determine the usage. Commercial motorcycle can also be seen as important in everyday means of living of the people in Bida.

The study of commercial motorcycles is very important as they serve as channel of movement in everyday activities and overall means of living for the people in the area. It also provide employment for most people, which serve as a means of existence by creating excitement and standard vehicle is appealing, especially other as other alternative can be available. The commercial motorcycle business can be flexible, and allowing other income-generating works (Kemtsop and Starkey, 2013; World Bank, 2011).

Therefore, those engaged in commercial motorcycle riding have reduced transportation problems faced most especially by the people and occupied essential part of the public transportation system in many places. By means of commercial motorcycle, human beings are able to move to places inaccessible with vehicles. In recent time, majority of the people are involving in commercial motorcycle as a means of living. As a result of extreme poverty facing most people and lack of employment in most part of the country, commercial motorcycle riding is a viable employment. Due to extreme poverty, people are struggling coupled with high rate of unemployment in the country and this has forced large number of people most especially poor's and jobless people to engage in commercial motorcycle operation as means of living (Abdussalam, 2014). By this engagement, commercial motorcycle is not just a mode of public transport in Nigeria; it is a means of livelihood, contributing to employment, income and some forms of capital accumulation. Exploring the livelihood opportunities of this mode of transport becomes important not only to appreciate its importance in human wellbeing; but also to understand its contributions in such livelihood improvement.

1.2 Statement of the Research Problem

As examined by the World Bank (2011) income poverty is a major challenge in the world today; where sub-Saharan Africa is one of the regions highly affected by poverty owing to high rate of youth unemployment. While contending with the current economic crisis in the world, African countries will not cope with the growing number of economic crisis such as income poverty unless serious measures and alternative strategies are developed. In trying to eradicate extreme poverty and hunger, the Millennium Development Goals encourage development by improving socio economic

conditions. Some of these conditions can be improved through job creation.

Kumar (2011) conducted a study in third world countries and revealed that vehicle ownership is low and dependency on public transport is high. However the financial conditions and performance of all forms of government-organized public transport are ineffective and are in decline. This situation has forced people and the market to develop creative solutions to address daily travel needs hence a resort to motorcycles either for personal mobility in addition to public transport.

Howe (2001) has asserted that the decline in the organized public transport systems has led to a growth in largely unregulated, informally provided non-conventional public transport. The most dominant being the commercial motorcycles. Buses and taxis cannot use the footpaths and tracks that provide access to many low income urban settlements. In congested conditions the motorcycles are also valued for their ability to meander through the traffic and shorten door to door journey times and their charges are relatively cheap. Commercial motorcycles primarily provide some types of short distance services where they serve as feeders to urban areas on routes that suffer from low density of demand and sometimes the roughness of the route may be unattractive to taxis. They also complement taxis and large capacity bus services particularly in the remote areas from the main roads where large capacity buses or trucks cannot operate. Commercial motorcycles have a provision of an on demand access and travel much further than bicycles and with high speed. Access to basic community healthcare is an essential and often a forgotten need. Regular health education, routine vaccinations and early detection of health issues such as malnutrition drives progress towards Sustainable Development Goals (SDGs). Reliable transport options magnify the reach and

effectiveness of existing healthcare professionals.

Olawo (2014) undertook a study on effect of increased investment in motorcycles business on economic empowerment of people in Kisumu west district and established that the level of motorcycle business activities was very high in the district and that these activities had a positive significant effect on economic empowerment. The study suggested that further studies should be done in other districts to establish the nationwide effect of motorcycle business in economic empowerment.

Salum (2015) argued that the use of motorcycle taxi is not a new phenomenon of transport sector in most part of urban and rural areas of both developed and developing countries. That most people, especially youths who are either unskilled or semiskilled engage themselves into offer transportation services to their customers as means of earning and improving their livelihood as they found it difficult to be accommodated in other formal sectors due to limited opportunities.

In Tanzania, the influx of hundreds of thousands of “Boda Boda” started in 2009 when the government licensed them alongside the three-wheelers commonly known as “Bajaj” to carry passengers in a bid to reduce transport problems, especially in urban areas but also in rural areas. Most youths who are unskilled and semiskilled engage in this industry as alternative economic opportunity in attain their livelihoods after experiencing negative rewards from agricultural activities and other economic activities for several years up to date (Salum, 2015).

Ebonugwo (2009) has revealed that in Sub-Saharan Africa, motorcycle taxi popularly referred to as “Okada” in Nigeria or “Boda boda” in Eastern Africa, has become generally accepted as a means of commercial transportation, also as possibly the best form of flexible public transportation system. Oyesiku (2002), Oladipo (2012) considered commercial motorcycle operation in Nigeria as it provides additional source of income and also provides employment opportunity and improves standard of living in urban and rural areas. The rate of unemployment grows all over Nigeria, where the private sector did not prove to be strong enough to absorb the unemployed citizens. Many then turned to the informal sector to sustain their livelihood. Among the growing population of youths (scholars and non-scholars) who are unable to find job in the cities turned back to their home towns considered a more favourable environment to sustain a living are quickly absorbed by motorcycle services, thus offering self-employment as livelihood improvement.

The aforementioned studies, however, focused on the transportation demand and supply sides of commercial motorcycles on the one hand, and the environmental and health implications on the other hand. Little have been done to assess the livelihood impacts of commercial motorcycle operation, despite the contribution of the livelihood to a reduction in unemployment and poverty rates. This bias in literature may be responsible for the multiplicity of public policies geared towards discouraging motorcycle operation as a livelihood strategy. This study, therefore, analysed the livelihood impacts of commercial motorcycle operation to cover this knowledge gap.

Furthermore, despite the availability and potentiality of commercial motorcycles in the study area and its operations, income poverty still persists. The level of motorcycle business activities is very high in Bida metropolis and these activities have a positive

significant effect on community's (people's) livelihoods. Hence, this could be recognized as a new measure for poverty reduction in Bida going by the prevalent poverty rate of over 50% as reported by Sanusi (2009). This report was recognized by National Bureau of Statistics (NBS, 2012) that, 60.4% of the population in Niger State were poor, while UNDP (2016) report shows that Nigeria is one of the poorest countries in the world with poverty rate of 62.6%. It is on this basis that this study seeks to close the observed knowledge gap by analysing the livelihood impacts of commercial motorcycle riding in Bida local government of Niger State, Nigeria.

Therefore this study has recognized the livelihoods opportunities in commercial motorcycle riding in Bida. This study provided an in depth knowledge on livelihoods opportunities from commercial motorcycle. This study also served as reference point to policy formulation. These are some of the knowledge that this study has filled.

1.3 Research Questions

This work looked at the research questions below so as to determine the significance of motorcycle operation as profession or means of living within the study area.

1. What are the socioeconomic characteristics of the commercial motorcyclist in Bida?
2. What are the spatial characteristics of commercial motorcyclist?
3. What are the operation services of commercial motorcyclist in the study area?
4. What are the livelihood implications of commercial motorcycle riding?

1.4 Aim and Objectives

1.4.1 Aim

The aim of this research is to analysed livelihood impact of commercial motorcycle riders in Bida.

1.4.2 Objectives

i. To examine the socioeconomic characteristics of commercial motorcycle riders.
ii. To investigate the spatial characteristics of commercial motorcyclist in Bida.
iii. To assess the operation services of commercial motorcyclist in the study area.
iv. To examine implications of commercial motorcycle operation on the livelihood of the operators

1.5 Research Hypothesis

H0: There is no statistically significant difference between the income of commercial motorcycle riders before and after joining the business of motorcycle riding.

1.6 Justification for the Study

As a result of various benefits that ranges from socioeconomic to the livelihood opportunities and poverty eradication associated with commercial motorcycles necessitates this research work. This development of commercial motorcycles has special significance because it has occurred in the study area. This advantage is perceived to be of crucial importance to the well-being of the people in Bida.

In the third world countries, motorcycle are mostly used as means of movement in everyday activities and generally means of living to most people in the study area (World Bank, 2011). A review of some of the studies done indicates that, Ogunsanya and Galtima (1993) carried out a research on motorcycle uses as means of people movement in the north-east part of Nigeria, Yola town as a case study. The research

work established economic deprivation and insufficient transportation facilities as the problems that led to motorcycles use as means of people movement in the country. Adesanya (1998) centred on the emergence of motorcycles as a means of people movement in Ibadan. He also viewed the socioeconomic characteristics of motorcycle riders, attributes of motorcycles riding and effect of motorcycles on the public mostly in terms of safety and fares.

Fasakin (2001) also carried out research on problems influencing the profits gained everyday by commercial motorcycle riders in south-west part of Nigeria, Akure town as a case study (Fasakin, 2001). Oyesiku (2001) observed some other factors including high number of people using commercial motorcycle as a means of people movement in Nigeria indicating a reduction in supply of new cars of different types since 1970s result into the development of commercial motorcycles as a means of public movement. The significance of commercial motorcycle in reducing poverty is of importance and it also revolves around the needs such as, serving as a means and great access to employment, agricultural development, health and educational centres and social interaction. Most jobless youths and those that are out of service (retirees) see commercial motorcycle riding as a means of living. This study may also contribute to knowledge and provide database further research work.

1.7 Scope of the Study

The study involves and strictly confined itself to the livelihood impact of commercial motorcycles riding on only the operators in Bida. For adequate information on the collection of data and maximum level of accuracy attainment for excellent result, the study focused on the livelihood impacts of commercial motorcycle riding only on the

operators and the following were address during the study; the subject scope of the work presented below encompasses the socio-economic characteristics of commercial motorcycle operators were determine through the age and gender, literacy level, marital status and their primary occupation; spatial characteristics; location, space dimension and size; operation services; ownership of motorcycle, number owned, route plied; and livelihood impacts; employment opportunities and income generation.

1.8 Study Area

1.8.1 Brief historical background

Bida is a traditional Nupe town and traditional headquarters of Bida Emirate and can be traced back to as far as 15th century as most traditional cities in the northern part of Nigeria, and surrounded by wall with four entering points or gates popularly known in Nupe as EBBAN, the town is located in valley that's Chinian, Musa and Landzun which passes towards the centre of the city. The rivers are used for irrigation purpose by the people of the area encouraging the cultivation of surge cane, vegetables and rice. The town is self-sufficient and reliance in terms of agricultural produce.

History as shown that Bida bannin is the initial place of where Bida first settle before they were they were at Bidakko. As at that time tsoda was in charge /control of all Nupe territory and all his followers were animals' hunters and wanderers. The people live home for a long distance and stays out for many days for the purpose of hunting and later come back home. In Bidakko, there's a district head who is in charge of the affair of the area, luckily for those that came to Bida for animals hunting decided to build huts (with grasses) and live there permanently and some of them returned back to Biddako alongside with meat (animals) and asked whether they were interested in going back to

the Biddako? Many of them agreed to go back and used the word ("let's go" meaning Bida in Nupe). The name Bida came into existence as a result of these words ("let's go").

Presently, Bida is under the leadership of Etsu Nupe, Alh. (Dr) Yahaya Abubakar is the thirteenth Etsu Nupe under fulani dynasty (Mohammed and Kawu, 2014).

1.8.2 Location

The town Bida his on latitude is situated 90ºN,and longitude 60ºE which is in form of sand stone and comprise of plains with large area of swamp (fadamas) which is highly good for rice cultivation. The location of Bida is shown in Figures 1.1 and 1.2; while the street guide of Bida is shown in Figure 1.3. The area is surrounded to the west by village called Pitcch, east by Baddegi, north Faslu and Doko village in the south. Bida located towards the northern part of the nation capital (Abuja) about 189 kilometres away from the town (Maxlock, 1980).

1.8.3 Climatic condition

The study area experiences distinct wet and dry seasons. Wet season begins mostly April and end in October with an average rainfall of 1,334 mm while the temperature ranges between 27ºc and 40ºc in the dry season (Maxlock, 1980)

1.8.4 Topography

The town is underlain by undifferentiated complex mostly magnetite and characterized by more or less continuous steep outcrop of granite that appear and limit physical /urban growth along the north-east direction and south-west with major drainage valleys downward the heart of the town consist of some small drainage navigating towards eastern part with storm water from the hills.

1.8.5 Population

1991 census figure put the total population of the town at 173,898 (89,571 for male and 83,327 for female) (National Population Commission, 1991); while 2006 census figure was 188,181 (95,561 for male and 92,620 for female) (National Population Commission, 2006). The study area has twelve neighborhood, namely: Bangaie, Bangbara, Banma, Banwuya, Banyagi, Dokodza, Esso, GRA, Ndazabo, Project quarters and Rahmatu dangana.

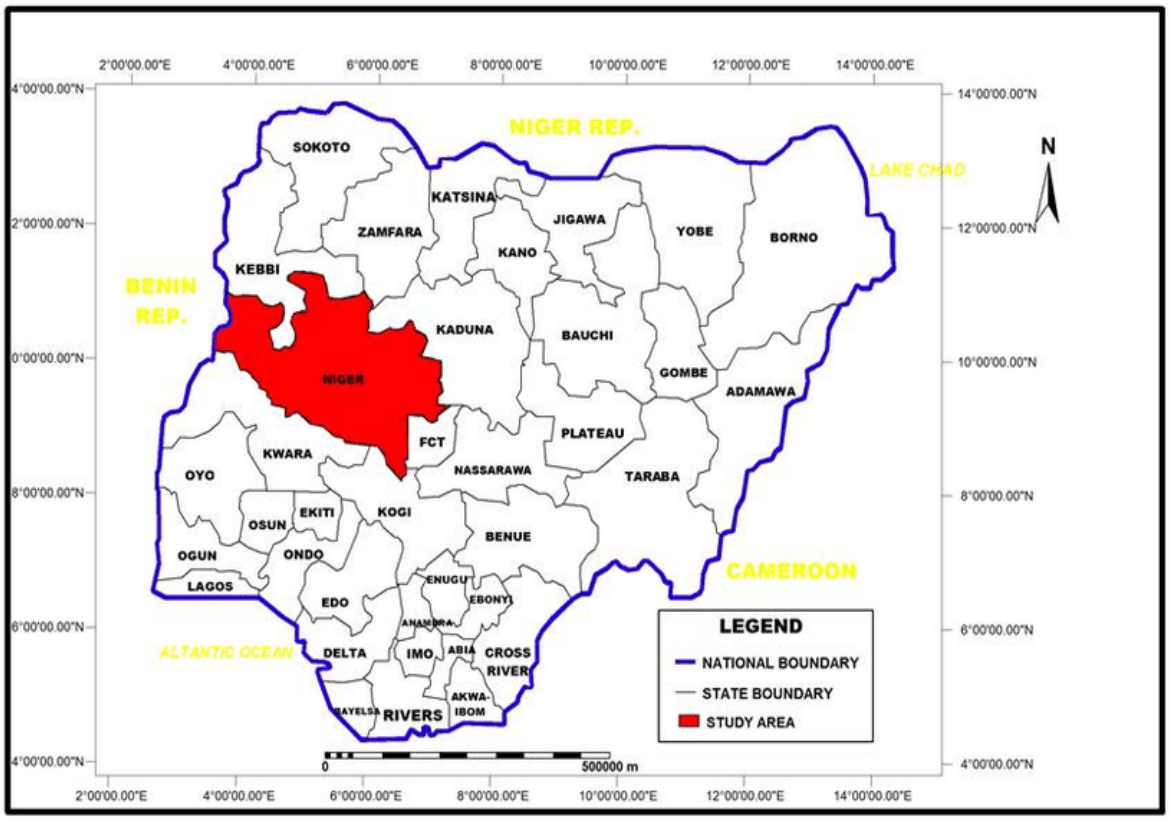

Figure 1.1: Location of Niger State in Nigeria

Source: Niger State Ministry of Lands (2013)

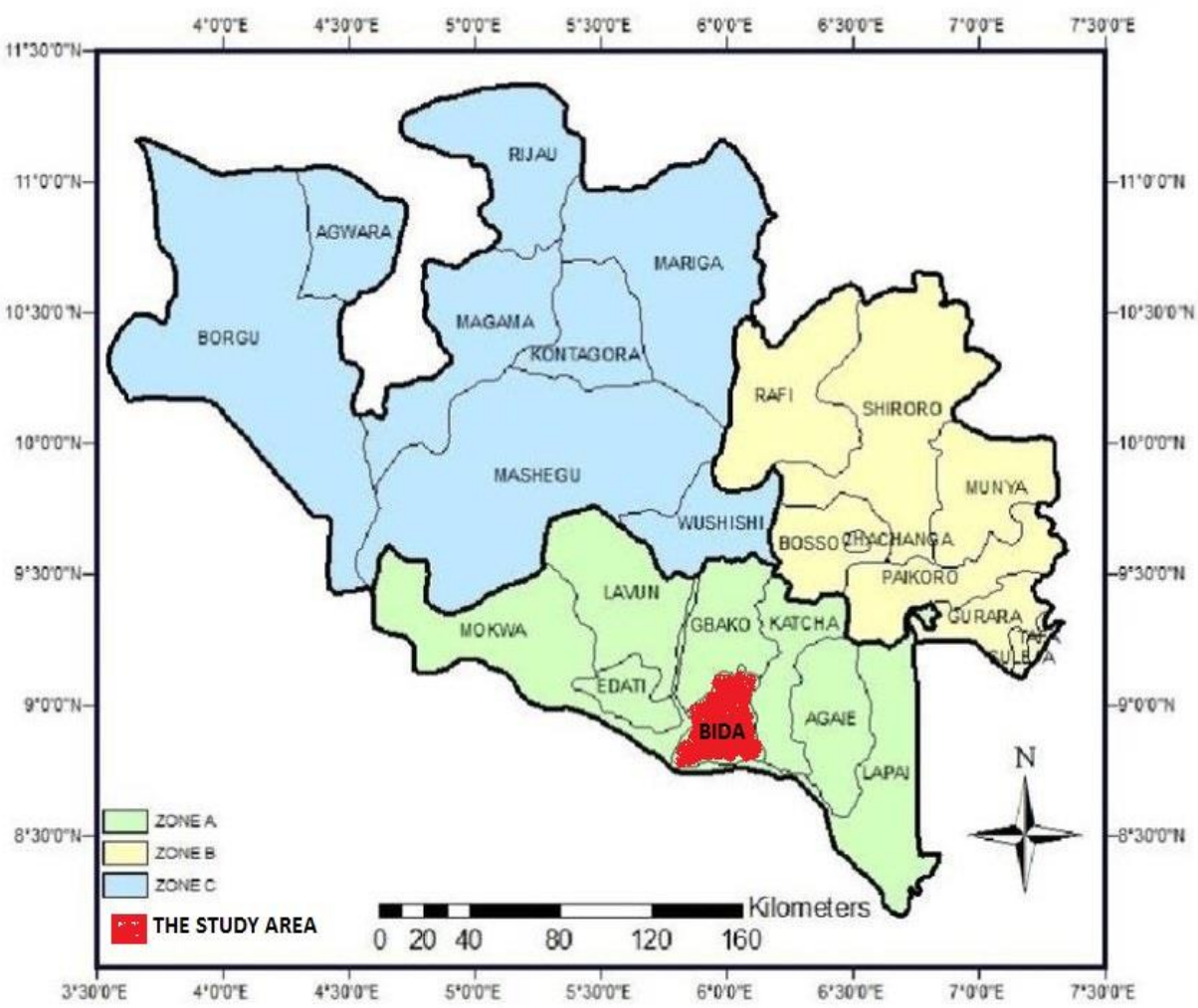

Figure 1.2: Location of Bida in Niger State

Source: Abdullahi (2020)

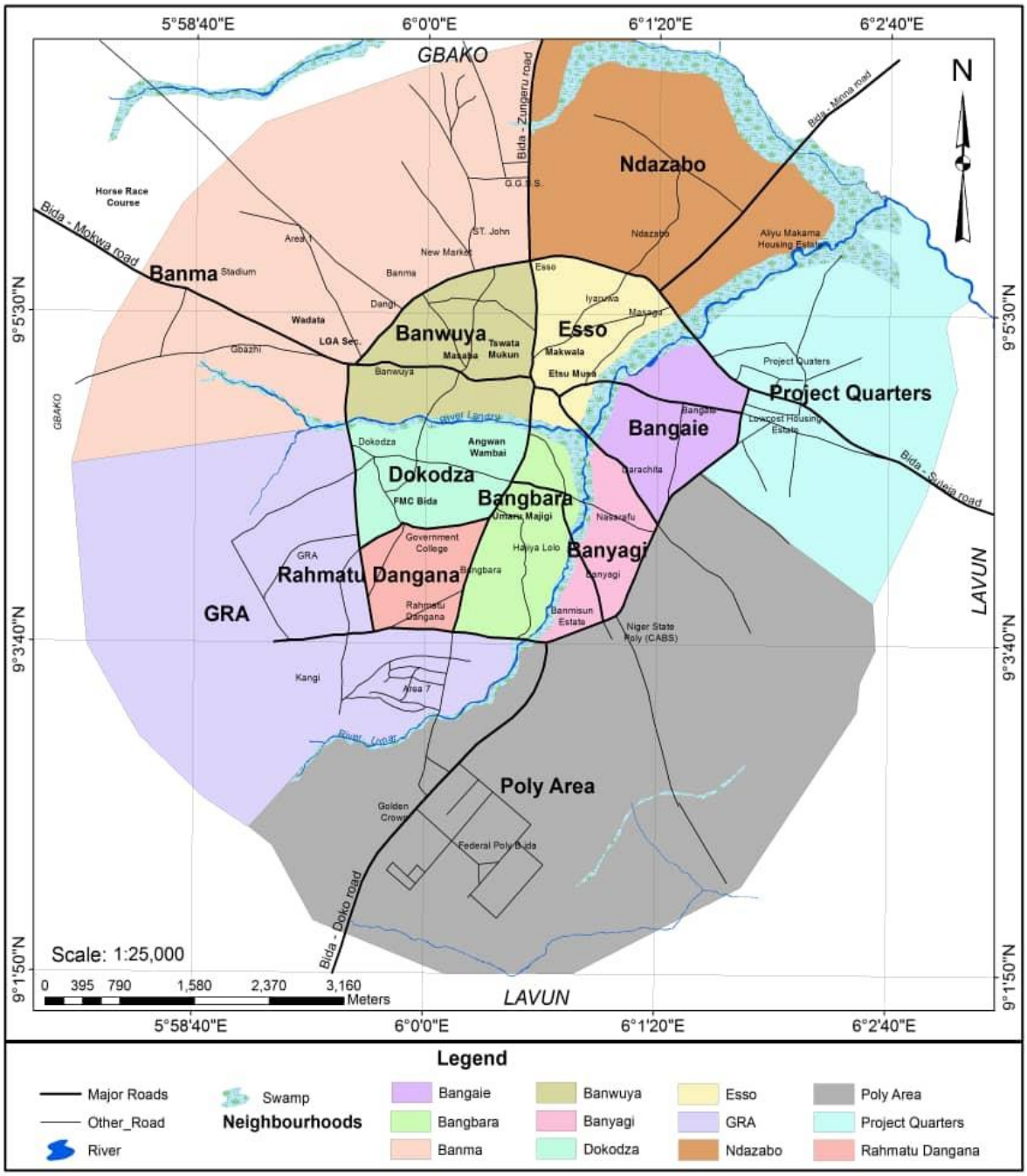

Figure 1.3: Street Guide of Bida

Source: Department of Urban and Regional Planning, Federal Polytechnic Bida (2016)

1.8.6 Definition of terms

Livelihood: Livelihood is defined as a means of living, which include the capabilities, assets, and activities required for livelihood outcomes. A livelihood encompasses income, social institutions, gender relations, property rights required to support and

sustain a certain standard of living as well as access to benefits derived from social and public services provided by the state such as education and health services.

Impact: significant, influence, or effect on something.

Commercial Motorcycle: They are two-wheeled motorcycles which are used to carry people and goods on commercial basis.

Riding: sitting on something such as a bicycle, motorcycle, or horse and travel along on it controlling its movements.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Theoretical Framework

2.1.1 The functionalist theory

This study adopts the functionalist theory as its theoretical underpinning. According to Mooney *et al.* (2007) the functionalist perspective is based largely on the works of Herbert Spencer, Emile Durkheim, Talcott Parsons and Robert Merton They argued that in functionalism, society is a system of interconnected parts that work together in harmony to maintain a state of balance and social equilibrium for the whole. They also emphasises the interconnectedness of society by focusing on how each part influences and is influenced by other parts. Ashley (2019) revealed that functionalism posits that society is more than the sum of its parts; rather, each aspect of it works for the stability of the whole and use the terms functional and dysfunctional to describe the effects on society. Element of society are functional if it contributes to socioeconomic stability of society and dysfunctional if they disrupt socioeconomic stability. However, this theory was used in this research work as it involves functions of different parts within the society whereby for the livelihood to be achieved within the society there have to be different function of institution or sector to realize that, for example, the transportation services have a great role in gaining living particularly in urban areas.

2.2 Conceptual Framework

2.2.1 Livelihood framework

Department for International Development (DFID, 1999) established that livelihood framework is a tool to improve our understanding of livelihoods, particularly the

livelihood of the poor. It was developed over a long period of term by the Sustainable Rural Livelihood Advisory Committee, building on earlier work by the Institute of Development Studies. The framework is centred on people; it does not work in a linear manner and does not try to present a model of reality (Herieth, 2017). Its aim is to help stakeholders with different perspectives to engage in structured and coherent debate about the many factors that affect livelihoods, their relative importance and the way in which they interact. This, in turn, should help in the identification of appropriate entry points for support of livelihoods. Furthermore, the form of the framework is not intended to suggest that the starting point for all livelihoods (livelihood analysis) is the vulnerability context which through a series of permutations yields livelihoods outcome.

Livelihoods are shaped by a multitude of different forces and factors that are themselves constantly shifting (Serrat, 2008). Herieth (2017) noted that people-centred analysis is most likely to begin with simultaneous investigation of people's assets, their objectives (the livelihood outcomes which they are seeking) and the livelihood strategies which they adopt to achieve these objectives. However, commercial motorcycle operation contributes to the socioeconomic stability of the society which serves as a means of livelihood of the urban poor.

2.2.1.1 Using the framework to help reduce poverty

The framework is intended to be an adaptable tool for use in planning and management. It offers a way of philosophy about livelihoods that helps order complexity and makes clear the many factors that affect livelihoods (Serrat, 2008; Timalsina, 2011; Herieth, 2017). A more important task than perfecting the framework itself is putting the ideas

that it represents into practice. Furthermore, use of the framework is intended to make a distinct contribution to improving DFID's ability to reduce poverty. However, this research work adopted DFID Livelihood framework, because it provides a useful theoretical base for understanding both rural and urban poverty and the situation of people living in poverty in their areas.

2.2.2 Concept of livelihood approach and livelihood framework

Timalsina (2011) revealed that livelihood approach views the individuals and social groups who are trying to make a living in volatile conditions and with limited assets. It provides a framework for understanding the opportunities and assets available to poor people and the sources of their vulnerability, as well as the impact upon them of external organizations, processes and policies.

The concept of livelihoods became prominent in the middle of the 1980s with work done by Robert Chamber and Institute of Development Studies at the University of Sussex. Schafer (2002) further states that the livelihoods approach and increased participation was a means of correcting the inevitable biases introduced by outsiders deciding what was best for the people. Cahn (2002) asserted that multilateral and bilateral agencies have put reduction, elimination or eradication of poverty as the prime focus of their programmes. It was also realised that a new way of thinking about poverty reduction is needed.

The basis of a life free from poverty is access and entitlement to range of assets and livelihood strategies that can sustain households and individual through the stresses and

shock of life (Serrat, 2008). During the 1990s a new approach to poverty reduction, sustainable livelihood approach emerged. The sustainable livelihood approach is promoted by multilateral and bilateral organization such as United Nation Development Programme (UNDP, 1997) and Department for International Development (DFID, 1999). Furthermore, Herieth (2017) has emphasized more the access to assets and activities in dealing with livelihood which is influenced by social relations and institution. The livelihoods framework is a tool to understanding of livelihoods, particularly the livelihoods of the poor. However, the concept of livelihood framework was found to be useful in dealing with changes to livelihood of migrant commercial motorcycle operators in the study area.

2.2.2.1 Livelihood assets

Makhetha (2010) observed that when discussing the poor, it is important to refer to the assets that they have access to in order to draw focus on what they have rather than what they do not have. These would allow us to understand how they make use of what they have in order to compensate for what they do not have. The relationship between assets and vulnerability is present in the fact that the more assets that people have access to, the less vulnerable they are, and the greater the erosion of their assets, the greater their insecurity (Rakodi, 2002; Rakodi and Lloyd-Jones, 2002). Individuals draw on their assets in a number of ways, and this includes pooling resources and the skilful use of social networks in order to avoid the poverty cycle (Hossain, 2005).

Furthermore, Rakodi (2002) and Rakodi and Llyoyd-Jones (2002) refers to them in terms of capital asset framework while Serrat (2008) and Herieth (2017) refer to the

assets that the poor draw on in terms of an asset vulnerability framework. The two essentially refer to similar assets; the difference between was that Serrat (2008) and Herieth (2017) discusses the assets that people draw on as a response to economic crises, while Rakodi and Llyoyd-Jones (2002) focuses on the response of households to poverty and sustaining their livelihoods. The two authors therefore refer to the same assets, but what sets them apart is the fact that they refer to them under different contexts. Rakodi and Lloyd-Jones's account of assets was therefore be referred to for the purpose of this review due to the fact that it is concerned with individual's or households responses to poverty and the assets on which they draw. Capital asset comprises of financial capital, physical capital, natural capital, human capital and social capital.

Financial capital refers to the financial resources available to people including savings and remittances that enable them to pursue their livelihoods (Rakodi and Lloyd-Jones, 2002).

Physical capital includes basic infrastructure such as transport, roads and service shelter, tools and equipment and means that enable people to pursue their livelihoods (Rakodi and Lloyd-Jones, 2002).

Natural capital refers to as being made up of natural resource stocks from which resource flows useful to livelihoods are derived, and it is stated that direct access to and the utilization of natural capital (land, water and aquatic resources, and tree and forest products) is less significant to the urban poor (Rakodi, 2002; Rakodi and Lloyd-Jones, 2002).

Human capital refers to both the quality and quantity of labour resources available to households, and this include skills and physical wellbeing (Rakodi and Lloyd-Jones, 2002), education and the capacity to adapt (Serrat, 2008). Chambers (1995) indicated that the body is a major source to the poor and that physical weakness, such as disability and sickness, results in them being unable to carry out their daily activities and strips them of an asset in the form of a fit and strong body. However, this indicates that a healthy and fit body is very important to the poor as they rely on it to carry out their daily activities that may include securing a livelihood.

Social capital refers to the networks and relationships of trust and reciprocity on which people draw in pursuit of livelihoods (Rakodi and Lloyd-Jones, 2002). Lyons and Snoxell (2005) place a lot of importance on social capital and assets that it contributes to the sustainability of the poor's lives. But some authors, such as Skinners, argued that this one sided view that presents social capital as being a good thing is misleading due to the fact that not all relation can be good.

This theory makes contribution on how commercial motorcycle operation facilitates the livelihood diversification as an aspect of capital assets. According to livelihood framework, communities require accessibility to supplies, services, facilities and work opportunities. The accessibility of such things can be measured in different way (Jones and Tomazevic, 1981). Accessibility depends on infrastructure and available and affordable modes of transport for the movement of people and their goods.

Livelihood outcomes attained by the poor result from their use of assets in a given set of structural and institutional conditions. Transport infrastructure and services are part of both the poor's asset base and the institutional framework that helps to determine its use. Improvements in the transport services and infrastructure can, thus, both improve the poor's asset base and make the institutional environment more favourable. Improvement in transport services open up the potential to make livelihoods more sustainable by, freeing up time; enabling livelihood diversification; and promote accessibility for social services (Barwell *et al.*, 1985). However, the livelihood framework was used in this research work as it indicates the different capital aspects that have to be achieved in gaining and improving livelihood diversification in the study area.

2.2.3 Sustainable livelihoods framework

Sustainable livelihoods framework forms the core of the sustainable livelihoods approach and serves as an instrument for the investigation of poor people's livelihoods. It provides a useful guide for the analysis on livelihoods suggesting that livelihoods comprise capabilities, assets and activities required to make a living. Livelihood assets and capital are used interchangeably as they are an important component of the sustainable livelihood framework because they form the strength upon which people construct their livelihoods and achieve their goals (Bebbington, 1999).

As illustrated in Figure 2.1, the framework depicts stakeholders as operating in a context of vulnerability, within which they access certain assets. These gain their meaning and value through the prevailing social, institutional and organizational

environment known as transforming structures and processes (Kollimar and Gamper, 2002). This context influences the livelihood strategies that are open to people in pursuit of their self-defined beneficial livelihood outcomes (Figure 2.1). The framework does not work in a linear manner but rather seeks to provide a way of philosophy about the livelihoods of poor people which should help in identifying more effective ways to support livelihoods and reduce poverty.

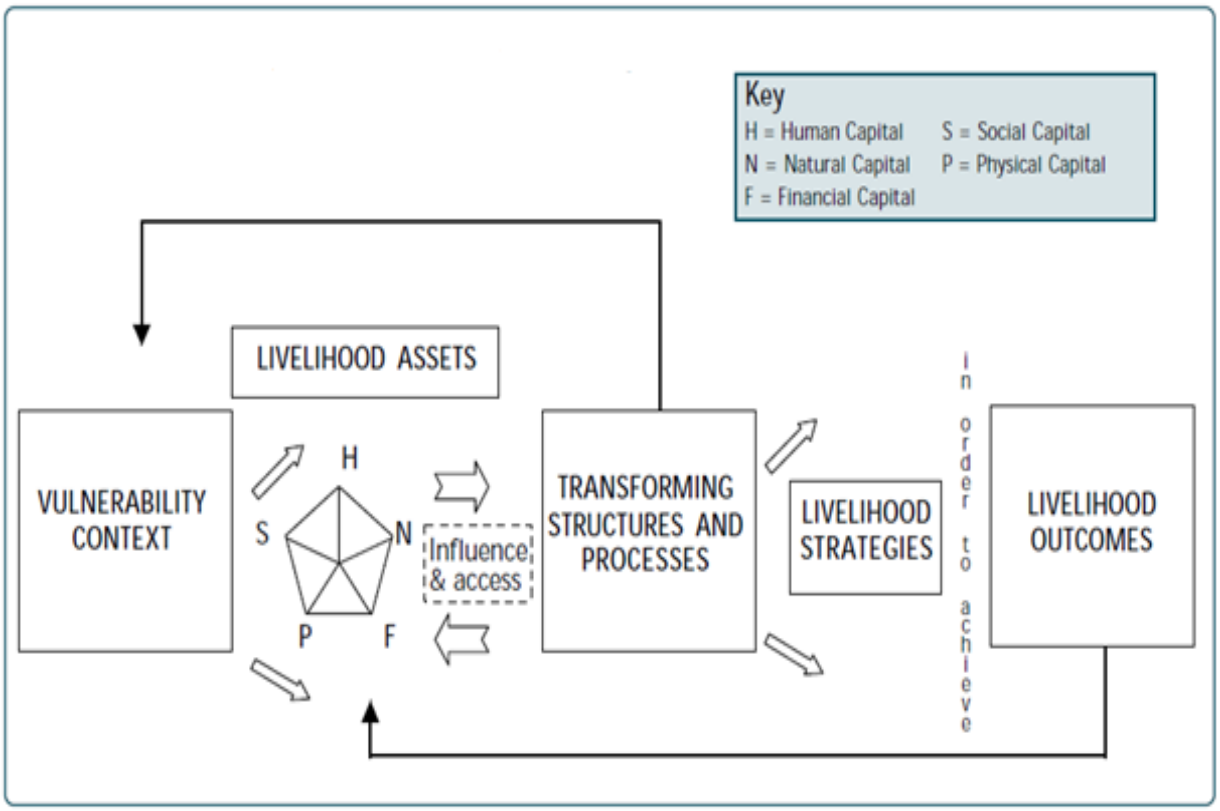

Figure 2.1: Sustainable livelihood framework

Source: DFID (1999)

Chambers and Conway (1992); DFID (1999) argued that sustainable livelihoods can be seen as the "capabilities, assets (stores resources, claim and access) and activities required for a means of living: a livelihood is sustainable when it can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets and provide sustainable livelihood opportunities for the next generations". Furthermore, it

refer to the means of earning a living and maintaining a particular standard of living. Individual use their resources ranging from assistance from family to saving; natural resources and education to earn a living.

A sustainable livelihood has stable resources to draw in times of crisis and is stable to recover and maintain a particular standard of living. Though, sustainable livelihood framework is seen more than general approved approaches and definitions to poverty eradication, which job and employment is necessary not just to secure, but also to protect and sustained livelihoods of individuals (UN-HABITAT, 2015).

This study adopted DFID Livelihood framework, because it provides a useful conceptual base for understanding both urban and rural poverty and the situation of people living in poverty in their settlements, and it is an effective tool for analysing the impact of regulations on their livelihoods. It can be used to analyse the coping and adaptive strategies pursued by individuals and communities as a response to external shocks and stresses such as drought, civil conflict and failed policies and anti-poor regulatory frameworks.

DFID livelihood framework consists of human capital, social capital, physical capital, natural capital and financial capital. This study looks on the aspect of financial capital and physical capital whereby the physical capital comprises the basic infrastructure and producer goods needed to support livelihoods. Infrastructure consists of changes to the physical environment that help people to meet their basic needs and to be more productive. Producer goods are the tools and equipment that people use to function

more productively. The components of infrastructure that are usually essential for sustainable livelihoods includes affordable transportation, secure shelter and buildings, adequate water supply and sanitation, clean, affordable energy; and access to information communications (DFID, 1999).

Many participatory poverty assessments have found that a lack of particular types of infrastructure is considered to be a core dimension of poverty. Without adequate access to services such as water and energy, human health worsens and long periods are spent in non-productive activities such as the collection of water and fuel wood and other things. Therefore, this study contributes new knowledge about the contribution of commercial motorcycle riding in the course of enhancing livelihoods diversification.

The financial capital denotes the financial resources that people use to achieve their livelihood objectives. The definition used here is not economically robust in that it includes flows as well as stocks and it can contribute to consumption as well as production. However, it has been adopted to try to capture an important livelihood building block, namely the availability of cash or equivalent that enables people to adopt different livelihood strategies.

Financial capital is probably the most versatile of the five categories of assets. It can be converted with varying degrees of ease, depending upon transforming structures and processes into other types of capital. It can be used for direct achievement of livelihood outcomes for example when food is purchased to reduce food insecurity. Rightly or wrongly, it can also be transformed into political influence and can free people up for more active participation in organizations that formulate policy and legislation and govern access to resources (DFID, 1999).

Therefore, this theory makes a bid contribution on how commercial motorcycle riding facilitates the livelihood diversification as an aspect of financial capital or assets. According to livelihood framework, all communities require accessibility to supplies, services, facilities and work opportunities. The accessibility of such things can be measured in different ways (Mooney *et al.,* 2007). Accessibility depends on infrastructure and available and affordable modes of transport for the movement of people and their loads.

Livelihood outcomes attained by the poor result from their use of assets in a given set of structural and institutional conditions. Transport infrastructure and services are part of both the poor's asset base and the institutional framework that helps to determine its use. Improvements in transport services and infrastructure can, therefore, both improve the poor's asset base and make the institutional environment more favourable. Improvements in transport services open up the potential to make livelihoods more sustainable by, freeing up time; enabling livelihood diversification; and promote accessibility for social services (Barwell *et al.,* 1985). Therefore, the livelihood framework was used in this study as it implies the different capital aspects that have to be achieved in gaining and improving livelihood diversification for the community, where financial are the capital aspect analysed in this study.

2.2.4 Urban public transportation

Transportation is an important element in economic development and it affords the social and political interaction that most people take for granted (Gbadamosi and Afolabi, 2017). The provision of transport infrastructure has grown extensively across the globe through a range of networks of modes which have undergone technological

improvements cutting across the motive power, the tracks as well as the means which serves as compartment for passengers and goods. It is also a key player in the transfer and distribution of goods from the input points through the manufacturing line to the customers (Badejo, 2002). Perhaps, this led to the assertion by Mumby (1968) that there is no escape from transport since it is a keystone of civilization.

Olagbegi and Olufemi (2007) opined that urban public transportation has been described as a carrier of person for hire or reward locally within the urban area. They note that urban public transportation in however described as vehicles allowed to provide stage carriage service for hire and perhaps reward. Saxena and Arora (2010); Okola (2013); Asekhame and Oisamoje (2013) argued that the most means public transportation in a particular region, areas or territory is an indication of the rate and the level of the socioeconomic development of that locality or region. They strongly indicated that transportation is seen as an index of economic, social and commercial growth of a country, in which the entire composition of a nations industry and commerce lies on the well laid foundation of transportation. Furthermore, public modes of transportation provide service for all persons, while cars can only be used by those who own and can drive them. Thus, cities need and benefit from public transportation services, which offer greater mobility for their entire population than the people in rural areas can enjoy. Transit systems are also needed in urbanized areas to make high density of diverse activities, such as residences, business offices and factories stadia physically possible while keeping cities liveable and attractive for people (Vuchnic, 1981).

Furthermore, Tijani (2013) classified urban public transportation into Private transportation; Para transit or for-hire transportation and urban transit, mass transit or public transportation. The most important modes of land transportation include railways, motor vehicles (cars, lorries and buses) as well as motorcycles, tricycles and bicycles. Others include the use of animals (camels, donkeys and horses), and animal drawn carts. However, of all these options, use of motorcycles for commercial land transportation has gained ascending for several reasons. The prevailing mode of transportation in a particular territory, locality and country is an indication of the level of the socioeconomic development of that locality or territory.

Sustainable transportation indicates the travelling as well as the movement of people, goods and services in urban or public areas in a way and manner that reduce degradation of an environment, transportation system costs as well as traffic safety problems and traffic congestion, while ensuring smooth access even for the poor to meet their mobility desires and needs (Akinbamijo, 2008).

As established by Stafford and Faccer (2014), in a green economy, the mobility and connectivity of people, goods and services are provided for in a way that contributes to urban efficiency, low levels of carbon emissions and with equitable socioeconomic benefits. Furthermore, Stafford and Faccer (2014) revealed that low carbon transport options are resource efficient and reduce the per capita green-house gas emissions per kilometre travelled. Low carbon transportation will require a shift to non-motorized transport (walking and cycling) and mass transit system s (motorcycles, buses and trains carrying many passengers and different kinds of freight) that are more cost-efficient and reduce congestion, air pollution and the carbon foot print per passenger travelled.

However, also central to the green economy transition and a more inclusive and equitable society is a focus on livelihoods, poverty reduction, wellbeing, social protection and access to essential services that contribute significantly to maintaining and enhancing the environment.

2.2.4.1 Emergence of motorcycles globally

As indicated by Foale (2006) and Narteh (2012), the first motorcycle design for a self-propelled bicycle has a three-wheel design called the Butler petrol cycle, conceived of and built by Edward Butler in England in 1884. He exhibited his plans for the vehicle at the Stanley cycle show in London in 1884, two years earlier than Karl Benz invented his first automobile and was generally recognized as the inventor of the modern automobile. Butler vehicle was also the first design to be shown at 1885 International Inventions Exhibition in London.

Informal public transport modes vary in size, type and operation from place to place all over the world. In Madras, Caracas and Delhi; Duto and Pedicab, bicycle, rickshaws, Lorries and hand cast are informal transport modes used for goods and passenger movements. In the U.S.A. for example, the informal transport modes are in the forms of Jetney, dial and ride subscription buses, Vanpool, shared taxi and auto rapid transit (Anne *et al*., 2011).

2.2.4.2 Review of studies on motorcycle as a means of transportation in African countries

David and Asiwome (2017) undertook a study on the phenomenon of commercial motorbike transportation and its impact on the youth of Agbozume traditional area in the Ketu south municipality in the Volta region of Ghana. The study focused on factors that motivated the youth into the commercial motorbike transport business, the socio-economic benefits of the business, and the effects of the business on the education of the youth in the area. The study employed the case study design. The instruments of questionnaire and interview were used to collect data from a total sample of one hundred and fifty (150) persons. Like other parts of Ghana, there has been the emergence of commercial motorbike transportation in the Agbozume Traditional Area in the Ketu South Municipality of the Volta Region. David and Asiwome (2017) observed that this new means of public transportation in the area has seen many of the youth engaged in it for livelihood. The study found among others that poverty, lack of employment opportunities and peer influence were the factors that attracted the youth of the area into commercial motorbike transport business. It also found that, though, the business posed a lot of risks to the youth, most of them were unwilling to stop the business because of the socio-economic benefits they obtained through it. In line with the findings, it was strongly recommended that the government should provide job opportunities for the youth especially those who have skills since the central motivation for engagement in commercial motorcycle business is unemployment and poverty.

Desiré *et al.* (2019) assess ccommercial motorbikes and intra-urban transport in Mbouda town-west region of Cameroon. This study, therefore calls for the need to understand the stages of the evolution of the transport system in Mbouda. Equally, there is the need

to understand the socio-economic impacts of the activity in the area. Primary and secondary data were used in the study. In Cameroon, before the civil unrest of the early 1990s that retarded economic activities and development in the whole country, urban transport was an absolute monopoly of township taxis. During the unrest, circulation of vehicles was prohibited by protesters and only bikes were permitted to circulate in towns. That was probably the unnoticed spark that developed into a new urban transport system. In Mbouda town, after the unrest, taxis resurfaced and functioned together with the motorbikes. As time went on, the competition became stiff and by the year 2000, taxis were very scarce in Mbouda. In 2010, the taxis had completely disappeared from the urban transport sector in Mbouda and gave way to commercial motobikes. It was found out that the intra-urban transport sector in Mbouda slumbers in informality. The commercial motorbike riders function like outlaw citizens. The town thus needs a complete re-organisation of the sector, as well as the proper implementation of the laws and texts governing the activity.

Bolbol and Zalat (2018) conducted a study on motorcycle riders' risky behaviors and safety measures in Zagazig, Egypt. A cross-sectional study was conducted on 319 motorcycle riders admitted to Zagazig University Hospitals due to crash accident. A questionnaire was used to gather information about rider's risky behaviours and safety issues along with other socio-demographic data. The study showed that the majority of motorcyclists (87.1 %) don't have a driving license, only (1.9 %) wear helmets and more than half of them (54.5 %) usually use the cell phone while riding and this was noticed more among "Tok-Tok" (3 wheels) riders. About 58.0% of riders don't respect traffic rules as traffic lights or road signs, and the majority ride on highways. Poor

riding technique (73.4 %) was the main cause of accidents. Stunting acts were more common among the two wheels riders with riding experience less than 10 years

Dorcas *et al.* (2021) conducted a study on Compliance of commercial motorcycle riders with road safety regulations in a peri-urban town of Ghana. A cross-sectional study was employed involving a multistage sample of 238 motorcycle riders. Data were collected using a pretested structured questionnaire and entered into Epi Data version 3.2 software and exported to STATA software version 12 for analysis. Descriptive and inferential analyses were done while statistical significance was determined at 95% reliability interval and p-value of 0.05. The level of compliance with road safety regulations among respondents was 59.2%. The mean age of respondents was 29.9 ± 7.9 years, and all respondents were males. Respondents who did not own their motorbikes were 0.39 times less likely to comply with road safety regulations compared to their counterparts who owned one, while those without alternate occupations were 0.51times less likely to comply with road safety regulations compared to those with an additional occupation. Those aged between 30–39 years and 40–49 years were 2.37 and 4.1 times more likely to comply with road safety regulations, respectively, compared to those aged 29 years, and those who did not smoke were 3.15 times more likely to comply with road safety regulations than those who smoked.

Owino (2018) examined factors aassociated with aaccidents ievolvingg ccommercial motorcyclists in Migori town, Kenya. Transport services offered by commercial motorcyclists present a number of advantages to users. The advantages range from affordability to flexibility. However, commercial motorcyclists have continued to operate in fear of their lives. This is due to the increasing number of case of road

accidents involving them and other road users. This study uses descriptive survey research design targeting commercial motorcyclists registered with Migori town motorists Sacco limited. One hundred and ninety five riders were randomly sampled while five key informants were purposively identified. Pretested structured questionnaires were administered to sampled riders to collect quantitative data and in-depth interviews to gather qualitative data. The likelihood of a rider with a riding license, involved in accident not being involved in accident was 7.2 times higher than those who do not possess riding license. The likelihood of respondents in age group 31 to 42 years not being involved in accident is 7.5 times higher than those who are aged over 54 years. Rider in age group 43 to 54 years were 5.6 times likely not to be involved in accident compare to those over 54 years. The study recommends that both existing and potential commercial motorcyclists undergo rider formal training in driving schools as a way of reducing commercial motorcyclists accident involvement.

The use of the commercial motorcycle as means of public transportation is a popular phenomenon across the nations of the world especially in the low and middle income countries (WHO, 2004). Nwaogbe *et al.* (2011) asserted that they operate as low capacity mode of transportation in many urban areas as an alternative to public transportation in the third world countries. For instance, commercial motorcycles are used in Togo, Benin Republic, Burkina Faso, Liberia, Niger, Sierra Leone and other West African's countries for public transportation. A study by Mutiso and Behrens (2011); Cervero (2000) revealed that in much of Sub-Saharan Africa, as in many parts of the developing world, commercial motorcycle operation still largely informal. It also emerged as popular mode of transportation both for passengers as well as for ferrying goods in both rural and urban areas of these countries and have several advantages that

make them suitable for both rural and urban set-ups compared to other forms of motorized road transport (Arosanyin, 2010; Narteh, 2012; Raynor, 2014; Singoro *et al.*, 2016; Starkey, 2016; Yakubu, 2012). Many rural areas in the Sub-Saharan Africa have poor road networks, hindering access to public, people have to walk and goods moved over considerably long distance to get to the nearest road to access public transport (Yakubu, 2012). The emergence of informal commercial motorcycle operation has tremendously reduced the burden. However, it serve as basis of urban employment that's means of livelihoods to so many unemployed people in the third world countries, some of whom have migrated from rural areas.

2.2.4.3 Review of studies on commercial motorcycle in Nigeria

Taruwere (2012) undertook a study on Determinants of Earnings among Commercial Motorcycle Operators in Kwara State, Nigeria. The study used modified Mincerian equation as tool for data analysis. A total of 80 Questionnaires were distributed to okada operators in both rural and urban areas. Out of this 77 were returned valid.The study revealed that, the significant variables like age of okada riders; location; and license holding positively determine earnings while variables such as age2; and average fare charged per trip; negatively determine earnings . The findings further indicate that okada riders earn a minimum of N 500 and maximum of N 2,800 per day. Urban okada operators earn N 591.97 higher than the rural operators; licensed operators also earn N 512.37 higher than non-licensed operators daily.

Awosusi *et al*. (2020) undertook a study on Alcohol use and compliance with road safety rules among commercial motorcyclists in Southwest Nigeria. The study used

sample size comprised 660 registered commercial motorcyclists selected through multistage sampling techniques. A self-developed and validated questionnaire was used to elicit information from the respondents. The reliability of the instrument was determined through Cronbach's alpha with a reliability coefficient of 0.82. The data analysis was done using SPSS software version 19.0. The research questions were answered using descriptive analysis and correlation matrix was used to determine the association between alcohol use and factors influencing alcohol use at 0.05 level of significance. Findings showed that majority of the motorcyclists 236 (39.4%) were regular users of alcohol and a significant negative correlation ($r = -0.174$, $p<0.05$) was found between alcohol use and compliance with road safety rules and regulations. It was recommended that government under the auspices of Federal Road Safety Corps should organize sensitization through on dangers of alcohol use on safe driving to commercial drivers through motorcycle parks rallies, workshops and regular health talks.

Gambo *et al.* (2017) conducted a study on Impact of Commercial Motorcycle Transport in Raising Income from Jigawa State, Nigeria. The study used primary data generated from a survey of 300 randomly selected motorcycle riders in three local government areas in Nigeria. Eviews9.0 & SPSS 20 software aided data analyses were used for descriptive analyses and in addition, an econometric model was specified and estimated using the OLS techniques. A majority of the operators (40.3%) generate average income of between N901 - N1, 200 and the multiple regression result reveal that years of experience, daily savings and daily fuel purchase are the major determinants of income generation model, although the model does not have a good fit given the very low value of R2 (0.31), but, overall, the model is highly statistically significant according to the F-

test which is rejected at 1% level of significant. The model is very satisfactory as it passed two out of the three econometric tests conducted.

Venatus and David (2017) conducted a study on the Role of Commercial Motorcycles in Nigerian Rural Economy. Data for the study were collected through personal interviews and focus group discussion sessions. The study has noted that most of the commercial motorcycle operators were able-bodied young men who had varying levels of education but who had no off-farm gainful employment. The study has revealed that commercial motorcycle business in the study area has helped in promotion of livelihood and in the alleviation of poverty.

Ajay (2011) observed that prior to 1980, motorcycles or motorbikes were primarily used for private purposes such as for individual mobility and for domestic purposes like fetching water and firewood, as well as for conveying farm produce from the farm or to the market. Tijani (2013) argued that it emerged as a means of transportation within rural communities. They also served as status symbol for the low income earners who could afford them (Christopher *et al.,* 2013). Nwaorgu (2013) revealed that commercial motorcycle however found its way as a means of public transportation within the country's cities from late 80s to 90s.

Several reasons have been advanced for their emergence as a means of public transportation within Nigeria's urban and city landscape. These include the inadequacy in the scope, coverage and services rendered by the public transport system. Besides the increase in population and depression in Nigeria's economy in the early eighties led to

massive unemployment (Ogunsanya and Galtima, 1993), decrease in the supply of new vehicles (Oyesiku, 2002), drop in the quantity and quality of public transport services, ease which commercial motorcycle negotiates traffic congestion and inaccessible places (remote areas) and take people, goods and services from one place to another as it supplement services rendered by commercial buses and vehicles (Asekhame and Osiamoje, 2013), political patronage of operators, ease of access to the service (Nwadiaro *et al.*, 2011; Oluwaseyi, 2014; Olusanya, 2011).

Increasing incidents of unemployment among the youths and finally lack of an articulated transport infrastructure to ensure sustainable development of transport policy, structure to ensure sustainable development of infrastructure capacity (Badejo, 2011). Ganne (2010) established that it is instructive to observe that similar factors influence the decision to use motorcycles for commercial purposes in Nigeria. The operational factors in focus are the easy manoeuvrability of commercial motorcycle, their ability to travel on poor roads, and the ease with which they can reach distant and remote places. However, commercial motorcycle operation came into fill the service gap created by the unavailability or inadequacy of cars and other modes of mobility on land. In recognizing the importance of commercial motorcycle operation to the socioeconomic activities in Nigeria is the provision of easy employment opportunity for the teeming number of unemployed youth, retirees and other quasi operators desirous of augmenting their regular source of income (Ogunrinola, 2011; Okola, 2013).

2.2.4.4 Livelihood advantages and opportunities of commercial motorcycle riding

Skinner (2008) argued that the term livelihood is a concept that tends to be applied to urban poverty, and it is defined as comprising the capabilities, assets (including both material and social resources) and activities required for a living. Livelihood is also considered to be sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in future. The concept livelihood is important because it begins to expose the fact that households are not passive victims during times of disasters, but that they are active in ensuring that they survive harsh conditions by drawing on a number of assets (Rakodi, 1999). Applying this concept to the daily lives of informal commercial motorcycle operation was found to be useful in helping us gain a better understanding of the various activities they engage in and the assets on which they draw in order make a living and survive in the city.

It has been established that the informal commercial motorcycle operation is an important source of livelihood to many poor urban households as it brings in a steady flow of daily income both to operators and motorcycle owners who happen to rent out their motorcycles. The commercial motorcycle operations also create employment opportunities to many unskilled urban labour and further job opportunity to informal sector workers who wish to switch jobs in search of higher rewards (Ojuki and Kimeu, 2018).

According to Timalsina (2007 and 2010) lack of gainful employment coupled with poverty in rural areas has pushed many people out of their villages in search of a better

existence in the cities of the third world countries. These migrants do not possess the skills or the education to enable them to find good paid, secure employment in the formal sector and they have to settle for work in the informal sector and put up their own business to earn their livelihoods. This has led to a rapid growth of the informal sector in the most of the cities in the third world countries. Bhowmik (2005); Timalsina (2010) argued that they are conflict affected people, who have migrated to urban centres for safe living and secure subsistence livelihoods. At present these type of migrants are decreasing but have not stopped yet. Furthermore, low skilled rural migrants live in all countries of Asia, but they are more prevalent in the poorer countries. Due to the violent and conflict as well as hard working life in rural areas, working people have been displaced from rural areas. Peasant and conflict affected families seeking work as well as well safe place to live, have moved to urban areas where employment in the in formal sector are very limited (ILO, 2004).

Singh (2005) revealed that informal sector is characterized by a large number of small-scale production and service activities that are individually or family owned and labour intensive, does not fall under the purview of organized economic activities. Most workers entering the sector are recent migrants unable to find employment in the formal sector and their motivation is usually to obtain sufficient income to survive, relying on their own indigenous resources to create work. As many members of the household as possible are involved in income generating activities and they often work for very long hours. It is difficult to estimate the exact magnitude of the informal sector but there is general agreement that the informal sector comprises a growing proposition of economic activity. Particularly in third world countries fifty percent of the labour force is engaged in the informal economy (Gottdiener and Budd, 2005). However, informal

commercial motorcycle operation has become an opportunity to many to make a living in the urban areas.

Ellis (2003) asserted that a successful sustainable rural livelihood strategy combines migration with subsistence production at home and continued control over land revolves around having the skills to enter higher paid labour markets in the urban areas and having the networks to gain access to work opportunities. Furthermore, Ellis (2003) revealed that migration contribute positively to the achievement of secure livelihoods and to the expansion of the scope for poor people to construct their own pathways out of poverty. However, in the third world countries migration has long been an important livelihood strategy for the rural people.

Timalsina (2011) noted that migrants, who were working in the rural vulnerable situation, see themselves more beneficial working in the urban informal sector. Migrants livelihoods vary according to their level of education and the skills they have. Competent and skilled migrants may find urban formal jobs either in the government or in the private sectors. Among various informal activities, commercial motorcycle operation is one which is growing in the recent years rapidly in the developing countries (Timalsina, 2007).

Muiruri (2010) asserted that commercial motorcycle operation is one of the activities within the informal economy that has been in existence for a long period of time and fast growing and becoming source of livelihood to many in some part of the third world countries. Timalsina (2011) opined that commercial motorcycle operation is not only a

source of employment but it provides affordable services to the majority of the urban poor. They constitute an integral part of the urban economy, provide an essential service, create their own employment and contribute to economic growth. The role played by the commercial motorcycle operations in the economy therefore is as important as it facilitates the movement of people, goods and services from one point to another. Furthermore, Timalsina (2011) revealed that commercial motorcycle operation attracts those who have limited opportunities for obtaining formal employment or prestigious business and minimizes chances of social exclusion and marginalization.

Commercial motorcycle operation is increasingly becoming livelihood option for those marginalized people. On the other hand it is an important livelihood securing sector for the urban poor. It provides seasonal employment to the rural poor and has become a source of economic earning to them. They also contribute significantly to the urban employment creation where unemployment and poverty issues are more acute. Very poor people migrate to the urban areas for survival creating their own work. It is also prevalent that some better off people also migrate to urban areas for work and earn cash income. This sector also links to the formal sector by providing labour forces unlike other sections of the urban population they do not demand that government create jobs for them or engage in begging, stealing or extortion. They try to live their life with dignity and self-respect through hard work. Uwitije (2016) argued that commercial motorcycle operation is becoming an important activity for the survival of many urban poor people most especially around the third world countries by helping them create their own jobs and earn cash income. Thus, commercial motorcycle operation avails good opportunity for the urban poor to work and to be self-employed. This sector, however, has been neglected and underestimated.

As stated by United Nation (1996) perceived commercial motorcycle operation as an important sector, having vast vitality for promoting economic growth, employment creation and on the job training or developing entrepreneurial skills. In fact, it has a potential role in alleviating poverty through income generation from the sector. Furthermore, it is a means of survival and confers financial independence. Commercial motorcycle operation creates economic resources to sustain the livelihoods of operators and other people who benefit from their services, especial low income families (Tripp, 1997). In all these cases, the profit margins from commercial motorcycle operation activities depend on the location of the business the tax burden (Adhikari, 2011; Bell and Loukaitou, 2014).

It would appear that socioeconomic factors form the major driving force for commercial motorcycle operation in Nigeria. These factors include the low initial purchase cost, low operating cost which is generally related to the superior fuel economy or efficiency of motorcycles in relation to cars, their relatively low maintenance and perhaps the most important in Nigeria's context, is the employment opportunities it offers to our teeming unemployed youths (Solagberu *et al.*, 2006). According to Adekunle *et al.* (2013) and Ikot *et al.* (2011), there are indications that commercial motorcycle operation serve as a means of job opportunity to many people (unskilled and skilled) and also there's pleasure in riding motorcycle as the experience is equal to camel/horse riding for pleasure. Abiodun (2013) has reported that the most important consideration for people, especially the youths, to get involved in commercial motorcycle operation is the rise in the unemployment rate among youths coupled with the poor economic situation in Nigeria has greatly influenced the rise in the use of motorcycles as means of commercial transportation.

Ajay (2011) revealed that demand responsiveness is another transport advantage offered by commercial motorcycle operation. It may be considered as products; intangible products that are also subject to the economic factor of demand and supply. What appears obvious so far is that whatever commercial motorcycles operate in Nigeria, the demand for their services have exceeded the supply. However, commercial motorcycles seen to respond more effectively and more efficiently than other modes of land transportation. Christopher *et al.* (2013) also noted that commercial motorcycle operation has created business opportunities for millions of Nigeria's, especially the youths, the retired and the retrenched persons, as well as the educated and even the uneducated in the society. The jobs created by the commercial motorcycle operation initially got a good proportion of the youths quite busy and thus removed their minds from vices that are generally associated with their age brackets.

2.2.4.5 Environmental implications of commercial motorcycle operation

Commercial motorcycle operation causes spatial problem that comprises the environmental spill overs that arise as a result of their activities in the urban space. Unregulated commercial motorcycle operation activities tend to create environmental problems such as the carbon emission (air pollution) and congestion (Uwitije, 2016). Many of the commercial motorcycles are very poorly maintained or serviced. The result is that a good proportion of these motorcycles exude very thick and offensive fumes from their exhausts into the air thus further worsening the pollution of the atmosphere and increasing the hazards in the environment. It is estimated that on the average, motorcycles emit 1.5 and 5 times more carbon oxide and hydrocarbon gases, respectively per kilometre driven than motor vehicles (Shing *et al.*, 2001). In addition, commercial motorcycle operators often add engine oil to their fuels in order to help

lubricate the engines of these motorcycles. IRIN (2008) argued that this action not only makes the fuels denser and makes them burn rather slowly, but also increases the amount of environmental pollution and creates such health hazards as eye infections and skin cancer.

2.2.4.6 Challenges faced by commercial motorcycle operators

Cohen (2010) argued that despite the socioeconomic importance of commercial motorcycle operation in urban areas especially for the urban poor group, commercial motorcycle operation face various challenges. Like all informal workers, informal commercial motorcycle operations lack legal status, representation and voice. Due to this situation they face several specific problems such as road accident, poor road infrastructure and security problem payment of daily revenues. along the way of securing the livelihood which limits their opportunities to work efficiently for income generation and poverty reduction.

2.2.5 Livelihood strategies

Livelihood strategies are the activities people engage in for a living such as cultivation, wage labour, trading and hawking to achieve their goals such as food and cash to satisfy human needs (DFID, 1999; Gillespie and Loevinsohn, 2003). Scoones (1998) revealed that three types of rural livelihood strategies are: Agricultural intensification or extensification, Livelihood diversification including both paid employment and rural enterprises and migration (including income generation and remittances). Carney (1998) also outline livelihood strategies as natural resource based, non-natural resource based including migration and remittances and other transfers. However, in this research work

agricultural works before migration and operating commercial motorcycle business after migration has been considered.

2.2.6 Livelihood outcomes

Carney (1998) cited in Timalsina (2012) asserted that the reason that the word 'Outcome' is used rather than objective in the DFID framework is that 'Outcome' is considered a neutral term that reflects the aims of both DFID and its clients, where's the term objectives could imply top down objective. A focus on outcomes leads to a focus on achievements, indicators and progress. An understanding of livelihood outcomes is intended to provide, through a participatory enquiry, a range of outcome that improves wellbeing and reduce poverty in its broadest sense (DFID 1999).

Livelihood outcome has been looked at plotting access to assets of migrant operators on asset pentagon of livelihood framework. Furthermore, livelihood outcomes are the result of livelihood strategies generated through assets and capabilities. Livelihood outcomes are both tangible and intangible that households attain such as food, housing, education and better health, accumulation of assets, savings and greater social influence.

2.2.7 Vulnerability context

The vulnerability context is especially about how people adapt to and cope with stresses and shocks. People's livelihoods and their access and control of resources can be affected by events largely beyond their control. The vulnerability context firstly frames the external environment in which people exist (DFID, 1999), for example, trends in population growth, national and international economics, natural resources, politics and

technology, sudden shocks or events such as health problems, earthquakes, floods, droughts, conflict, agricultural problems such as pests and disease, economic shocks, and seasonal vulnerability of prices, production, employment opportunities or health can impact on livelihoods (Chambers and Conway, 1992). Culture (including gender) and household dynamics can also cause risk and vulnerability (Cahn, 2002). Hardship of working life in rural areas, conflict and lack of gainful employment in rural areas have made livelihood vulnerable in the rural areas and operating commercial motorcycle business itself to some of the migrants it has become vulnerability context in the urban areas.

2.3 Urban livelihoods and policy

In assessing policy approaches to reducing urban poverty and promoting urban livelihoods, a useful place to start is with the debates on the impacts of structural adjustment. Significant research was undertaken in this area, which examined the impact at the household level and gave particular emphasis to the negative social effects on urban populations (Chant, 1996; Elson, 1991; Onimode, 1989; Beall and Kanji, 1999).

In the 1980s, with recession and economic crisis, the over-riding concern of international financial institutions and many governments was to ensure macro-economic stability and address budget deficits by cutting public expenditure and focusing on economic growth. In many countries, this involves a redefinition in the role of the state with a much reduce emphasis on direct poverty reduction and a reliance on the market to promote economic growth and multiplier effects to benefits low-income

groups. Mainstream development agencies moved towards more residual approaches to social policy, supporting limited safety net programmes, usually basic income-maintenance programmes, to protect, to most vulnerable individual or households agaist such adverse outcome as chronic incapacity to work or ‘‘temporary’’ incapacity caused by shocks such as retrenchments. The rationale behind the early social funds or social dimensions of adjustment programmes was to compensate for retrenchments and cut-backs in the social sectors, which were seen to exacerbate poverty in the short-term, until export-oriented growth and liberalisation provided the impetus for poverty reduction.

Wratten (1995) argued that although poverty in urban areas may have different characteristics from rural areas, challenges the usefulness of treating urban poverty as a separate conceptual category. Furthermore, Wratten (1995) stressed that from a policy perspective, a narrow focus on the urban context can obscure the underlying causes of poverty. The determinants of urban and rural poverty are inter-linked and have to be addressed in tandem.

The 1990s has seen a renewed emphasis on poverty reduction on the part of the World Bank, official development assistance and many governments, at least in part as a response to the research and lobbying around the negative social impact of neo-liberal, market-oriented policies focusing on economic growth (World Bank, 1990). The 1990 World Development Report formulated an approach to poverty reduction comprising three components: broad-based growth, human resource development and safety nets. Many governments in both north and south have followed this strategy (World Bank,

1990). The publication of a World Bank Policy Paper entitled ‘’Urban policy and economic development: an agenda for the 1990s’’ summarises the overall strategy for urban development and poverty reduction (World Bank, 1990).

Turning to policy implementation and planning approaches for poverty reduction, the emphasis by mainstream development agencies on partnerships, decentralization and ‘community partnership’ has increased through the 1990s (World Bank, 1990). Decentralization has involved a shift in the role of central governments from direct providers of services to enablers, creating a regulatory and financial environment in which private enterprises, household and community groups can play an increasing role in meeting their own needs (Carney, 1998).

2.4 Urban Livelihood and Planning

A major challenge facing urban planners is how to incorporate an understanding of gender and different on the one hand and livelihood systems on the other, into formal and informal planning process. A livelihood perspective is conventionally understood solely in terms of income earning and a conventional response is to promote employment creation and a local economic development. These are indeed important and appropriate responses (Beall and Kanji, 1999). Furthermore, a broader perspective on livelihood system also points to how strategies around income and consumption at intra-household and inter-generational level are directed wherever possible, not merely at coping but at ensuring longer-term security. Efforts are further extended to inter-household and community level activities, which include participation in civil society organisations of various kinds. However, it is underscored here that collective actions as

well as household and family level activities are included in the livelihood systems of the urban poor. They need, therefore, to be factored into the planning responses of city governance.

2.5 Support and Regulatory Framework for Commercial Motorcycle Riding in Nigeria

Ajayi (2019) investigated the activities of commercial motorcycles return to FCT Metropolis. The aim was to assess the level of the implementation on banned on the operation of commercial motorcycle riding within FCT metropolis. On October 1, 2006, the former Minister of FCT, Mallam Nasiru el'Rufai, banned the operation of Commercial Motorcycles popularly called "Okada within the city metropolis after a three-month notice. Motorcycles were banned as a means of public transportation in the Federal Capital City, FCC, the districts covered by the Phase 1 of the master plan. These are Wuse, Central Business District, Three Arms Zone, Maitama, Asokoro, Utako, Wuye, Garki, Diplomatic Zone, Mabushi, Katampe, Gwarinpa and Gudu. Their activities were limited to the satellite towns, where there is fewer or no infrastructure, particularly good roads, resulting in less road crashes. El'Rufai equally directed that all security and traffic officers should be deployed to enforce the law, arresting and confiscating the bikes of violators.

For instance, the former FCT Minister, under President Jonathan, Sen. Bala Mohammed toed the footpath of his predecessor by ensuring that strict enforcement was applied on the operation of commercial motor-cyclists in Abuja metropolis. A Special Task Force, comprising the Police, Road Safety, Directorate of Road Transport (popularly called VIOs), and even members of the armed forces was constituted and empowered to seize

any commercial motorcycles operating within the city centre. The task force which was very effective during the administration of Bala Mohammed, seized several thousands of motorcycles, which were never returned officially to anyone. Today, there are many commercial motor-cyclists around the city centre doing their business without disruption despite repeated warnings by the FCTA that the group should stay off the major highways and city Centre.

Nwanna (2014) undertook a study on Right to the City: Lagos, an emerging revanchist city in Nigeria. The study examined programmes and policies of Lagos state government during the fourth republic (2007-2015) to assess whether they were revanchist in nature or not and how they had affected the right to the city of Lagos dwellers. On August 2, 2012, Governor Babatunde Fashola signed into law a bill which prohibited the operations of commercial motorcyclists on 475 roads in the state (Esene, 2014). The results showed that various processes of neoliberal restructuring of Lagos city had threatened democracy. Lagos State government, in a bid to revitalize the city, demolished some slum areas and evicted the residents because it would no longer tolerate the existence of slums in the centre of the state with a megacity plan for a 'world class' Lagos. Beggars and the destitute were forcibly removed from the streets and taken to the rehabilitation centre in Ikorodu. Some were evacuated to their various states or countries. The result further revealed that a number of the beggars were sent to Kirikiri Prison while illegal aliens were expelled and repatriated to their homelands. It was also observed that riding commercial motor-cycles popularly known as 'okada' was banned in most parts of the city. Markets in Tejuoso and Oshodi were demolished and rebuilt beyond the reach of the former traders. Also banned was street trading. With all these inhumane strategies, this article concludes that Lagos is becoming a revanchist

city and suggests that the state should jettison this neoliberal legislation and reconsider liberal policies characterised by redistributive policy, affirmative action and antipoverty legislation because constitutionally in Nigeria, every individual has the freedom to live in any region, state, or city of his/her choice.

According to the traffic law, only those with 200cc engine capacity could operate in the permitted areas. The ban of Okada on major Lagos highways has gone a long way to reinforce the elitist image projected by the Fashola government. Some aggrieved operators protested against the policy and a few people sympathetic to their cause had urged the state government to rescind its decision in view of the number that were affected. In addition, it was reported that their association, Amalgamated Commercial Motorcycle Riders Association of Nigeria (ACOMORAN) sued the state government praying the court to restrain the state from stopping them to exercise their economic right and from making use of highways belonging to the federal and not the state government (Esene, 2014). On its own part, the state government claimed that the restriction was to address carnage and avoidable deaths caused by okada accidents which had reached a frightening dimension within the state metropolis.

Awoyinfa and Obe (2013) reported that the Lagos State Government promised to engage genuine commercial motorcycle operators in meaningful ventures while some would be trained to acquire skills that would make them employable. The government did not provide alternative means of transportation for those who patronized them or even jobs for the riders before banning the okadas. Many people in Lagos were then compelled to walk for kilometres or stand for hours at bus-stops, waiting in readiness to struggle for the few spaces available in the few buses when they finally arrived. Some riders became jobless increasing the level of unemployment in the state. Before the

2015 general elections, operation of okadas was observed to be gradually returning to the banned streets. The operators had threatened not to vote for the political party of the governor. Since democracy is a game of numbers, it seemed the government relaxed the traffic law. Governor Fashola's programme and policies have been criticized as being anti-people and highly elitist in nature and has undermined the principles of democracy.

Itodo (2005) stated that Borno State Government earmarks N1billion for motorcycle procurement to boost public transportation and alleviate poverty, also revealed that commercial motorcycle operation business has impacted significantly on the Nigerian economy and society in many ways. One important positive impact is the provision of employment for millions of unemployed people and has empowered many Nigerians economically. Furthermore, Itodo (2005) stressed that many unemployed youths and retired people have found gainful engagement in the commercial motorcycle operation business. Some of those who are employed in government service still engage in commercial motorcycle operation known as okada business either as owners or riders in order to augment their regular income with whatever they are able to make from okada business. Some state governments in the country have also used motorcycles as poverty alleviation scheme by procuring and distributing motorcycles to the unemployed in their states as part of poverty eradication programme. Also in 2005, the Borno state government procured and distributed five thousand (5000) motorcycles to its citizens to boost public transportation and alleviate poverty (Itodo, 2005).

2.6 Summary of Literature Review

The literature review chapter has explored a number of issues such as conceptualisation of key terms, theoretical perspectives and empirical issues regarding the contribution of

commercial motorcycle transports on livelihoods diversification in urban areas. The concept of commercial motorcycle has been considered to be normatively and essentially good as it provides grounds for people engaging themselves in socio-economic schemes as they perceive as important livelihoods diversification.

Theoretical perspectives regarding the commercial motorcycle transports and its contribution on livelihoods diversification is dominated by contemporary debate, especially on its role as means of livelihood strategy. In this regard, sustainable Livelihood Framework has been explored in order to understand actors, access and importance of commercial motorcycle services offered. Empirical literature suggests that there have been commendable commercial motorcycle services in most African countries following liberalisation and reforms in the transportation sector.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Research Design

Research design is the procedure in which data are collected, measured and analysed in the view of the broad assumptions (Cooper and Schindler, 2003). This study adopts a descriptive research design. The study employed a non-probabilistic sampling technique (purposive sampling technique) for the administration of the questionnaire to commercial motorcycle riders. The descriptive statistical approach was used for data analysis and interpretation. The study only focused on Bida in the state towards a problem-solution research, the study also used the geographical locations of the commercial motorcyclist parks for analysis of maps. Primary and secondary data were the data sources used while regression analysis was used to address data on the relationship between operation activities and livelihood wellbeing of operators. Results are in detailed presented in maps, tables and charts.

Table 3.1: Data required, method and sources of data and method of analysis

S/N	Objectives	Types of Data require	Instrument of Data Collection	Method of Data Analysis
1	Examine the socioeconomic characteristics of commercial motorcycle riders	Age and gender of operators, marital status, educational level and years spent schooling, place of origin, household size, number of dependents	Questionnaire	Tables and charts
2	Investigate the spatial characteristics of commercial motorcyclist in Bida	Location, space dimension or size, route pattern, number of parks, size of parks	GPS, Google earth map and measurement	Mapping, charts and tables
3	Assess the of operation services of commercial motorcycles in the study area.	Ownership of the motorcycle, numbers owned, amount return and your own income, rout plight, duration in the business, trips per day and most frequent route of daily operation, hours of daily operation, union membership, obligations to union, the obligation of union to local government council	Questionnaire	Tables and charts
4	Examine the implication of commercial motorcycle operation on the livelihood of the operators.	Assets: financial, physical, human, natural, social capital, perception of gains	Questionnaire	Tables and charts

3.2 Types and Sources of Data

This study used both primary and secondary data types. Primary data were acquired from the geographical location of the main eleven commercial motorcycle parks from the study area namely: Old market, New market, Small market, Esso motor park, Cirico junction, FMC gate, Badeggi low cost junction, Poly junction, Federal poly gate, CABS gate and Masaga junction respectively. The data that were collected for the study includes socioeconomic data such as data on age, gender of operators, marital status, educational level and years spent schooling, place of origin, household size, number of dependents of commercial motorcycle riders in the study area; and spatial characteristics data such as data on Location, space dimension or size, route pattern, parking characteristics, number of parks, size of parks. Other primary source of data on operation services data such as data on ownership of the motorcycle, numbers owned, amount return and your own income, rout plight, duration in the business, trips per day and most frequent route of daily operation, hours of daily operation, union membership, obligations to union, the obligation of union to local government council and livelihood activities data such as data on Income per day, number of working days per week, hours spent on the work per day, volume of motorcycles, employment opportunities and capital asset. The study sourced secondary data from books, journals, articles, maps, seminars, working papers and other related literatures that were very important to this study.

3.3 Sample Size

A sample size can be seen as number of needed (respondents) in a given work for accurate representation of the (attitudes, opinion, beliefs, habits or characteristics) of a

given population. In this study, the sample frame was the population of the operators in some randomly selected commercial motorcycle parking places in the study area.

The population of commercial motorcycle riders in Bida which is 45,113 (ACOMORAN, 2021) was used in determining the sample size of the study area using Frank fort – Nachmais (1996) formula (sample size)

Value for population (45,113)

Frequency expected of the factor under study (10%)

Expectable worst frequency (14% - 6%)

P = Frequency expected value = 10%

D = (Frequency expected – Acceptable worst) = 14% - 10% = 4%

10% - 6% = 4%

Z = 1.960 by confidence level (95%)

Sample size formula = n / (1 + (n / population))

Where n = Z × Z (P (1 – p) / (D × D))

n (1.960 × 1.960 (0.10 (1 – 0.10) / (0.04 × 0.04)

n = 1.960 × 1.960 (0.09 / 0.0016)

n = 1.960 × 1.960 (56.25)

n = 216.09

Sample size(S) = sample size

S = n/

(1 + (n / population)

S = 216.09 /

(1 + (216.09 / 45,113))

S = 216.09 /

1.004789972

S = 215.

Therefore, 215 questionnaires were required for this study.

3.4 Sampling Technique

The study involves livelihood impact of commercial motorcycles riding in Bida whose representative sample was obtained through non-probabilistic sampling technique. Consequently, the purposive sampling technique was used during the administering of questionnaires to the operators of commercial motorcycles selected at their parks.

3.5 Method of Data Collection

The study used questionnaires for data collection and oral interview. Observation was also involved in assisting in understanding the circumstances during the study. Pen, pencil, notebook and digital camera were also be used.

3.6 Method of Data Analysis and Result Presentation

After interviews and questionnaires administration, data gathered from the field was cleaned and sorted out according to related phenomena such as socio-economic characteristics, contribution of commercial motorcycle riding poverty reduction and livelihood advantage. JASP (Jeffreys's Amazing Statistics Program) was used to analyse the data. Descriptive statistics was required to present results frequencies and percentages while inferential statistics (regression analysis) was used to determine if there is any relationship between operation services and livelihood wellbeing of the operators.

3.7 Method of Data Presentation

In this study, data presentation is done with using maps, tables and charts. The choice of these methods of data presentation was to ensure easy comprehension and communication of the results of the study.

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

4.1 Socioeconomic Characteristics

4.1.1 Age distribution of riders

The age distribution of the commercial motorcycle riders in Bida is presented in Table 4.1. The result shows that about 5% of the commercial motorcycle riders in the study area were between 25 and 30years of age, while none of the population under study was less than 25yeaars. Similarly, less than 1% of the commercial motorcycle riders were more than 50years old. Consequently, more than 91% of the commercial mpotorcycle riders in the study area were between 31 and 50years old. The implication of this is that commercial motorcycle riding in the study area is dominated by citizens within the active labour force. Viewed from another perspective, the result implies that there is a tendency for withdrawing from commercial motorcycle riding as a livelihood strategy in the study area as the riders approach the age of 50years.

Table 4.1: Age Distribution of Riders

Age	Frequency	Percent
25-30	17	7.9
31-35	28	13
36-40	70	32.6
41-45	53	24.7
46-50	45	20.9
51-55	2	0.9
Total	**215**	**100.0**
Mean	Median	Minimum
40.25	40.00	27

4.1.2 Gender of riders

The gender of the commercial motorcycle riders in the study area is presented in Table 4.2. The result shows that commercial motorcycle riding is essentially a male livelihood strategy. This is not surprising given the nature of the job and the cultural, socio-religious and regional nature of Bida.

Table 4.2: Gender of Riders

Gender	Frequency	Percent
Male	215	100
Female	0	0.0
Total	**215**	**100.0**

4.1.3 Marital status of riders

Figure 4.1 shows the marital status of the commercial motorcycle riders in the study area. The result shows that only about 6% of the commercial motorcycle riders in Bida were not married.

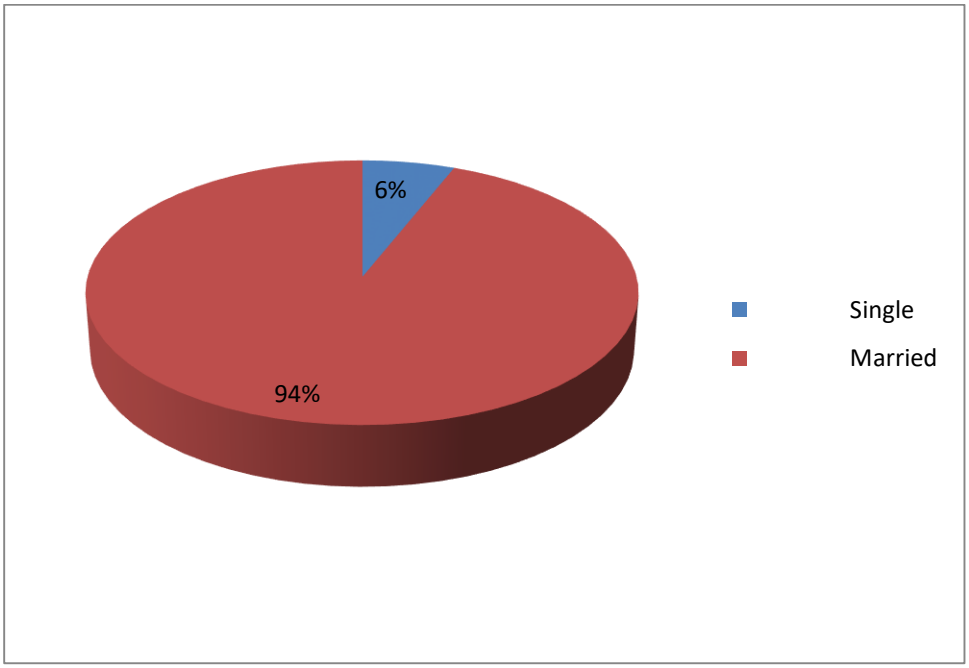

Figure 4.1: Marital status of Riders

4.1.4 Family size

The family sizes of the commercial motorcycle riders in Bida are shown in Table 4.3. The result shows that about 25% of the commercial motorcycle riders had a family size of less than 6 persons per household; while about 9% maintained the national average household size of 6persons per household. Furthermore, more than 39% of the commercial motorcycle riders in Bida maintained the regional household size of Northern Nigeria which is pegged at 9persons per household. However, it was found that about 27% of the commercial motorcycle riders in the study area had large household sizes ranging from 10 to 19persons. This is quite worrisome owing to high burden large family size places on household members.

Table 4.3: Family size

	Frequency	Percent
0-5	13	25.1
6-10	5	55.8
11-15	17	16.7
16-20	19	2.4
Total	**215**	**100.0**

Mean	Median	Minimum	Maximum	N
8.22	8.00	3	19	202

4.1.5 Motorcycle operation as primary means of livelihood

Table 4.4 investigates whether commercial motorcycle riding was the primary livelihood strategy of the riders in Bida. The result shows that the activity was the primary livelihood strategy of about 38% of the commercial motorcycle riders in Bida.

Table 4.4: Motorcycle operation as primary means of livelihood

	Frequency	Percent
Yes	81	37.7
No	134	62.3
Total	**215**	**100.0**

Following the finding in Table 4.4, those who reported that commercial motorcycle riding was not their primary livelihood strategy further indicated their primary livelihood strategies. Figure 4.2 show that farming was the primary livelihood strategy of majority of the commercial motorcycle riders in the study area. This is not surprising owing to the fact that Bida is surrounded by fertile and arable land. For this category of

the riders, the commercial motorcycle business is a complementary livelihood activity that improves economic resilience and built capacity.

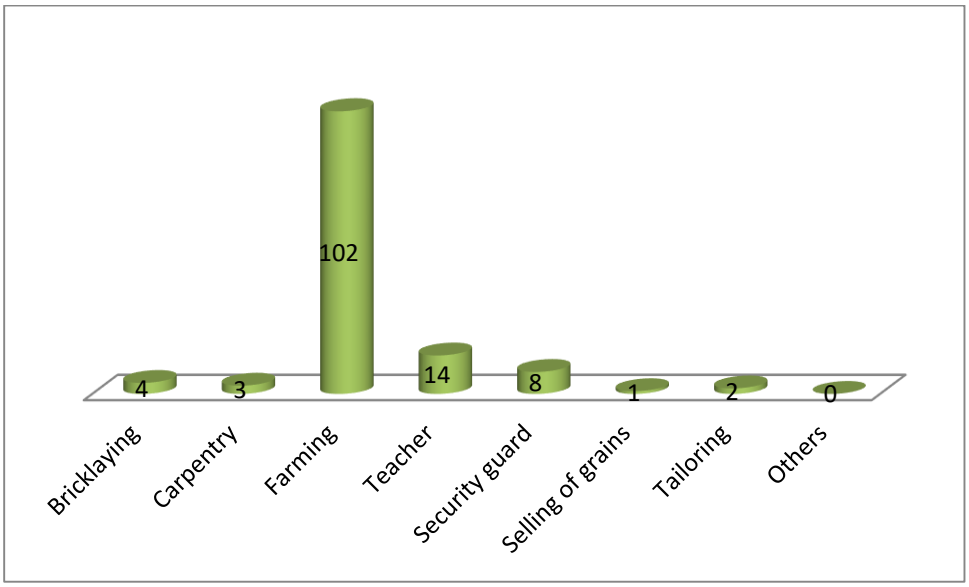

Figure 4.2: Primary livelihood indicated

4.1.6 Level of education

Table 4.5 shows the level of education of the commercial motorcycle riders in Bida. The result shows that about 25% of the commercial motorcycle riders in the study area did not attain formal education; less than 13% attained primary education; more than 44% attained secondary education; while less than 19% had tertiary education. The implication of this is that commercial motorcycle riding is dominated by people who have not attained tertiary education. This is not surprising given that the activity is an informal livelihood strategy.

Table 4.5: Level of education

	Frequency	Percent
Islamic education	53	24.6
Primary education	27	12.6
Secondary education	95	44.2
Tertiary education	40	18.6
Total	**215**	**100.0**

4.1.7 Year spent schooling

The actual number of years spent schooling by the commercial motorcycle riders in Bida is shown in Table 4.6. The educational characteristics show that it is not valid to claim that participants in commercial motorcycle are illiterate. In this case, about 63% of the riders are educated above primary school level.

Table 4.6: Years spent schooling

	Frequency	Percent
0-5	1	0.4
6-7	77	35.9
11-15	135	62.8
16-20	2	0.9
Total	**215**	**100.0**

Mean	Median	Minimum	Maximum	N
10.82	12.00	5	16	215

4.1.7 Place of residence

The place of residence of the commercial motorcycle riders in Bida is shown in Figure 4.3. It was found that majority (about 51%) of the commercial motorcycle riders in the study area resided in Bida. However, it was also found that about 18% of the riders resided in Lavun; 12% resided in Katcha; 7% resided in Gbako; 3% resided in Agaie; and another 7% resided in Edati. The implication of this is that commercial motorcycle riding in Bida serves as a livelihood strategy for riders within and outside Bida.

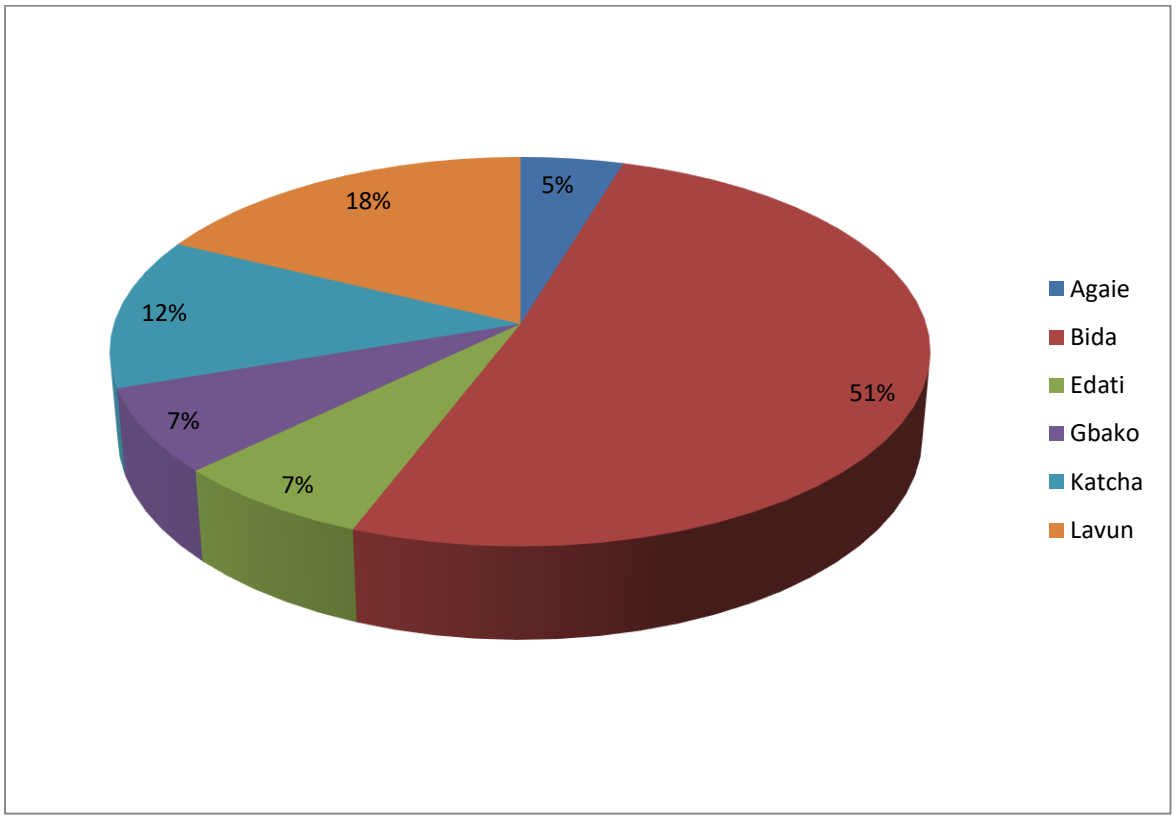

Figure 4.3: Place of residence

4.1.8 Motorcycle riding as only livelihood strategy

An appraisal was also carried out to determine whether commercial motorcycle riding was the only livelihood strategy of the study population. The result in Table 4.7 shows that about 70% of the commercial motorcycle riders in Bida had alternative livelihood activities. This implies that they have diversified their livelihoods. However, it is

worrisome to note that more than 38% of the commercial motorcycle riders in the study area did not possess any alternative livelihood activity apart from commercial motorcycle riding. The implication of this is that those without alternative livelihood strategies are vulnerable to livelihood stresses and shocks. They may therefore require enlightenment on the benefits of livelihood diversification.

Table 4.7: Motorcycle riding as only livelihood strategy

	Frequency	Percent
Yes	81	37.7
No	134	62.3
Total	**215**	**100.0**

4.1.9 Other supporting livelihood activities

The commercial motorcycle riders who possessed alternative livelihood strategies were further interrogated on their specific alternative livelihoods. Table 4.8 shows the supporting livelihood strategies of the commercial motorcycle riders in the study area. It was found that less than 5% of the commercial motorcycle riders in Bida were employed with formal sector jobs. Less than 9% had their alternative livelihoods in the business sector. However, about 85% of the commercial motorcycle riders in the study area had their alternative livelihood strategies in the informal sector. The implication of this is that majority of the commercial motorcycle riders in Bida are complete informal sector employees.

Table 4.8: Other supporting livelihood activities

	Frequency	Percent
Bricklayer	4	3.0
Carpentry	3	2.2
Farming	102	76.1
Security guard	8	6.0
Tailoring	2	1.5
Teacher	14	10.5
Selling of grains	1	0.7
Total	**134**	**100.0**

4.1.10 First occupation before joining the business

Table 4.9 shows the initial occupation of the commercial motorcycle operators in Bida before joining the business. The study found that about 37% of the operators were jobless while more than 47% were farmers before finding succour in commercial motorcycle operation. However, about 16% cited other initial occupations such as tailoring, trading and teaching. The implication of this is that majority of the commercial motorcycle riders in Bida have been trapped in the informal sector.

Table 4.9: First occupation before joining the business

	Frequency	Percent
Jobless	79	36.7
Farmer	102	47.4
Others (specified)	34	15.8
Total	**215**	**100.0**

4.2 Spatial Characteristics of Commercial Motorcycle Riders Operation

4.2.1 Parks where passengers are carried

The trip origins of commercial motorcyclists in the study area are shown in Figure 4.4a. It was found that Old Market and New Market had the highest concentration of passengers with more than 18% of the commercial motorcycle riders reporting that they pick their passengers therefrom. This validates the assertion that the presence of markets contributes to the clustering of commercial motorcycle riders. This was followed by Esso Park and FMC gate contributed about 9% and 8% of the passengers respectively. However, the result in Figure 4.6a is contrary to the popular opinion that traffic nodes and junctions are the major locations for commercial motorcycle clustering.

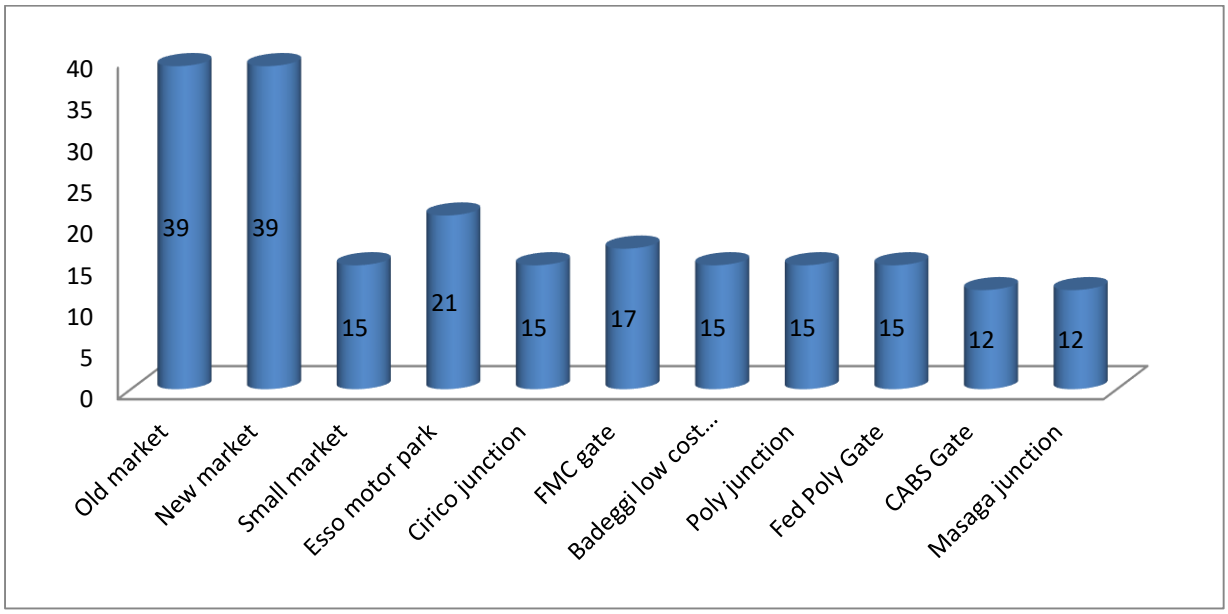

Figure 4.4a: Parks where passengers are carried

4.2.2 Spatial distribution of commercial motorcycle parks

Figure 4.6b shows the spatial distribution of commercial motorcycle parks in Bida. As the Figure shows, the Esso Neighbourhood and Poly Area had the highest number of

commercial motorcycle parks in the study area with three parks each. This may be linked with the economic activities in Esso Neighbourhood on the one hand; and the presence of Federal and Niger State polytechnic on the other hand in the two neighbourhoods respectively. The implication of this is that commercial motorcycle riders have a higher tendency of locating their parks in the most busy areas of the town.

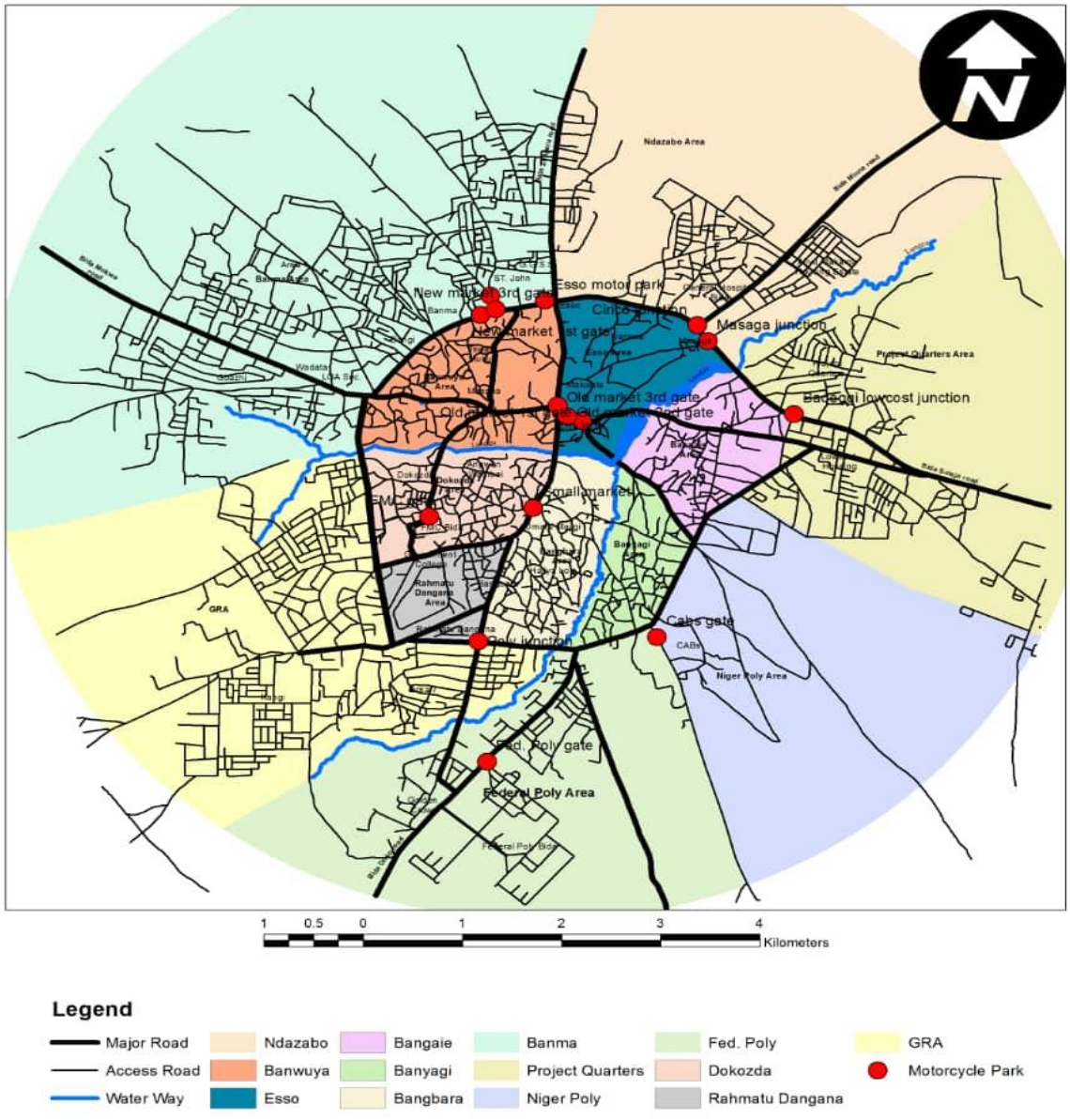

Figure 4.4b: Spatial Distribution of Commercial Motorcycle Parks

Table 4.10: Identified Commercial Motorcycle Parks in Bida

S/N	Name of Park	Neighbourhood	L.G.A	Distance to the Palace (Km)	Distance to State Capital (Km)	Location Coordinates		Total area coverage
						Latitude	Longitude	
1	Small Market park	Bangbara	Bida	3.35 Km	89.60 Km	9.0757356	6.0078703	2m ×11m
2	New market park First gate	Banma	Bida	1.68 Km	88.01 Km	9.0951815	6.0030783	2m ×16m
	Second gate	Banma	Bida	1.90 Km	88.05 Km	9.0971285	6.0039857	2.3m ×8m
	Third gate	Banma	Bida	1.84 Km	87.86 Km	9.095798	6.0044552	3m ×7m
3	FMC park	Dokodza	Bida	2.11 Km	90.27 Km	9.07484	5.9984418	2.8m ×14m
4	Esso motor park	Esso	Bida	2.35 Km	87.32 Km	9.0966348	6.0089279	3.2m ×9m
5	Old market park First	Esso	Bida	2.43 Km	88.76 Km	9.0844949	6.0123338	2m ×12m
	gate	Esso	Bida	2.28 Km	88.60 Km	9.0849386	6.0109685	2m ×8m
	Second gate	Esso	Bida	2.18 Km	88.41 Km	9.0860671	6.0100952	2m ×9.6m
	Third gate							
6	Masaga junction park	Esso	Bida	4.09 Km	85.94 Km	9.0925446	6.0237197	2m ×7m
7	Cirico junction park	Ndazabo	Bida	3.92 Km	85 76 Km	9.0941692	6.0227653	2.8m ×12.6m
8	CABS gate park	Poly Area	Bida	5.73 Km	90.14 Km	9.0627126	6.0190912	2m ×6m
9	Poly junction park	Poly Area	Bida	3.84 Km	91.77Km	9.0622711	6.0028976	2m ×7.3m
10	Poly gate	Poly Aeea	Bida	6.36 Km	92.36 Km	9.0501399	6.0036827	4.8m ×10.3m
11	Badeggi lowcost junction	Project quarters	Bida	5.32 Km	87.16 Km	9.085185	6.0315467	5m×8m
	park							

4.3 Operation Services of Commercial Motorcycle

4.3.1 Year of starting commercial motorcycle riding

The year of starting of commercial motorcycle riding as a livelihood strategy of the riders is presented in Table 4.11 It was found that the livelihood strategy of commercial motorcycle riding in the study area consistently attracted new members from years 2011 to year 2015. However, there has been remarkable decline in the number of citizens who took up commercial motorcycle riding as a livelihood strategy from years 2016. The implication of this is that there may be a likely continuation of this decline into the foreseeable future. This decline is not surprising given the diverse efforts of public agencies to discourage the livelihood.

Table 4.11: Year of starting commercial motorcycle riding

	Frequency	Percent
2005-2010	37	17.2
2011-2015	120	55.8
2016-2020	58	27
Total	**215**	**100.0**

Mean	Median	Minimum	Maximum	N
2013.55	2014.00	2007	2020	215

4.3.2 Number of bikes used

The number of bikes used by the commercial motorcycle riders in Bida from the period of their involvement in the business is shown in Table 4.12. About 98% of the operators have used between 2 and 6 bikes since they started the operation of commercial motorcycle. Less than 2% reported that they have used less than 2 bikes for their

livelihood. The implication of this is that there is a likelihood of changing the motorcycles at specified intervals.

Table 4.12: Number of bikes used (from the start to date)

	Frequency	Percent
1	4	1.9
2	40	18.6
3	59	27.4
4	52	24.2
5	47	21.9
6	12	5.6
8	1	.5
Total	**215**	**100.0**

Mean	Median	Minimum	Maximum	N
3.65	4.00	1	8	215

4.3.3 Motorcycle ownership

The ownership status of the motorcycles operated by the study population was examined. Figure 4.5 shows that about 78% of the commercial motorcycle riders in Bida were the owners of their bikes. The implication of this is that majority of the commercial motorcycle riders in the study area are more secured in the business. Secondly, the motorcycle is a personal asset of the riders

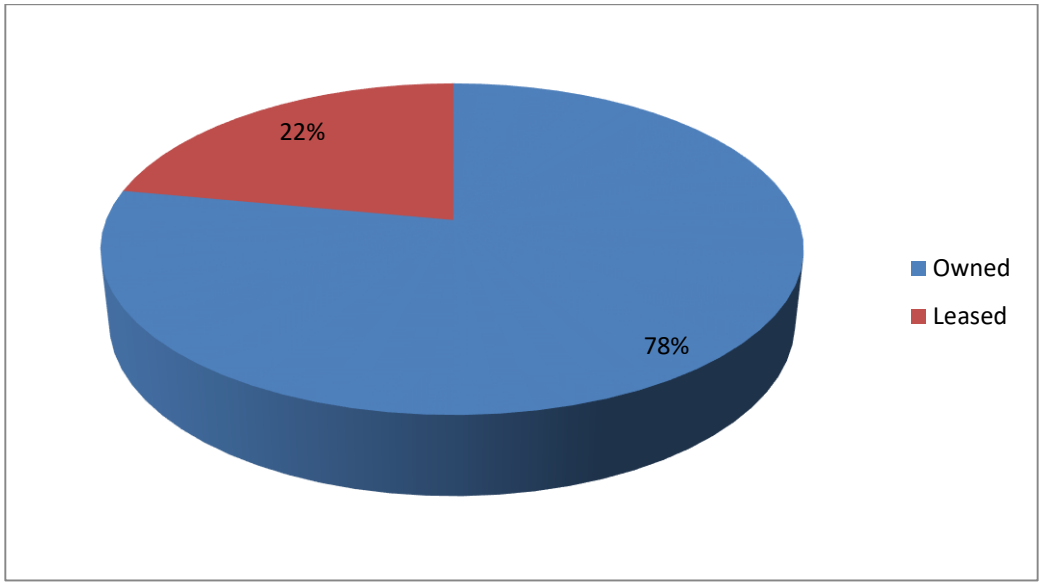

Figure 4.5: Motorcycle ownership

4.3.4 Ownership: Number of bikes owned

The actual number of bikes owned by the commercial motorcycle riders in Bida is shown in Table 4.13. The result shows that more than 56% owned 1 bike, while about 21% owned 2 bikes. However, about 22% of the riders did not own any bike. The commercial motorcycle riders who did not own any bike may be those who reported in Figure 4.4 that they were not the owners of the motorcycles they operated.

Table 4.13: Number of bikes owned

	Frequency	Percent
0	48	22.3
1	121	56.3
2	46	21.4
Total	**215**	**100.0**

Mean	Median	Minimum	Maximum	N
1.28	1.00	1	2	163

4.3.5 Ownership by another: Mode of employment

The commercial motorcycle riders whose motorcycles were owned by others were probed on their modes of payment as shown in Table 4.14. It was discovered that the major mode of payment is daily renting of the bikes at stipulated prices. The implication of this is that this group of commercial motorcycle riders are less secured in the business because they could be disengaged any time and any hour by the owners. This daily income also depend on meeting the daily rental payment to the owners. All these undermine stability of income and may affect riding behaviour of the rental-riders.

Table 4.14: Ownership by another: Mode of employment

	Frequency	**Percent**
Renting for daily use	48	22.3
Other forms of ownership (Specified)	167	77.7
Total	**215**	**100.0**

4.3.6 Ownership of the motorcycle

The ownership status of the commercial motorcycles in Bida is shown in Table 4.15. It was found that about 78% of the riders were the owners of their bikes. However, about 22% reported that their bikes were owned by their employers. This validates the findings in Figure 4.4 and Table 10.

Table 4.15: Ownership of the motorcycle

	Frequency	Percent
Self	167	77.7
Employer	48	22.3
Total	**215**	**100.0**

4.3.7 Source of finance for motorcycle purchase

The source of income for the purchase of commercial motorcycles in Bida is depicted in Figure 4.6. It was found that personal savings served as the source of income for the purchase of commercial motorcycles to more than 61% of the street traders in Bida. Similarly, more than 15% purchased their bikes through loans. The implication of this is that there is a diversity of sources of finance for buying commercial motorcycle in the study area.

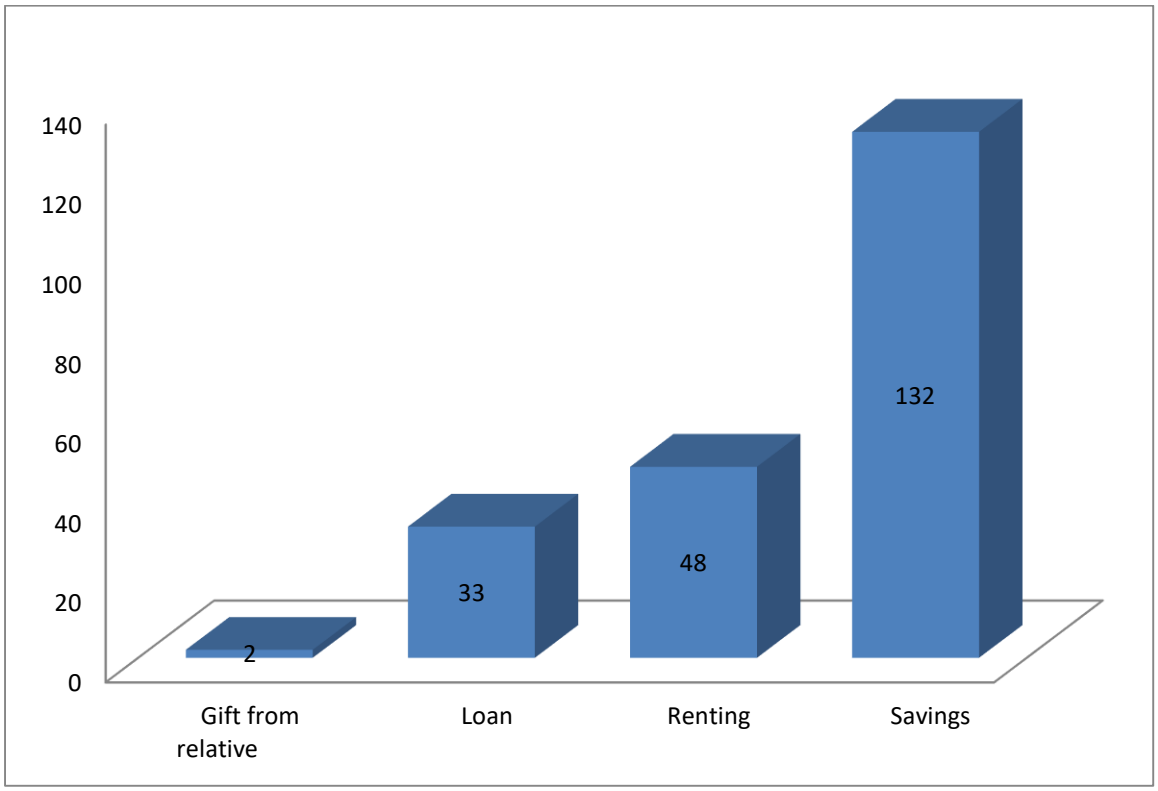

Figure 4.6: Source of finance for motorcycle purchase

4.3.8 Nature of worked time

Table 4.16 shows the nature of the work of commercial motorcycle riders in Bida. The result shows that about 94% of the operators were engaged in commercial motorcycle riding as a full-time livelihood strategy; while up to 6% were part-time commercial motorcycle riders. It is not surprising that a considerable proportion of the riders were

part-time operators given that Table 4.12 showed that not all commercial motorcycle riders in the study area engaged in the activity as their only livelihood strategy.

Table 4.16: Nature of worked time

	Frequency	Percent
Full time	202	94.0
Part time	13	6.0
Total	**215**	**100.0**

The commercial motorcycle riders who engaged in the activity on a part-time basis were interrogated on the time of their operation as shown in Table 4.17. Only about 8% stated they operated in the afternoon; while more than 92% stated that they operated at night. The implication of this is that they resume commercial motorcycle riding after closing from their primary livelihood strategies.

Table 4.17: Part time operation of commercial motorcycle

	Frequency	Percent
Afternoon	1	7.69
Night	12	92.31
Total	**13**	**100.0**

4.3.9 Number of routes plied daily

Table 4.18 shows the number of routes plied daily by the commercial motorcycle riders in the study area. The study shows that about 96% of the commercial motorcycle operators in Bida regularly plied between 5 and 10 routes daily. The implication of this

is that majority of the commercial motorcycle operators in the study area pled multiple routes in order to enhance daily earnings.

Table 4.18: Number of routes plied daily

		Frequency	Percent	
	3	3	1.4	
	4	2	.9	
	5	59	27.4	
	6	13	6.0	
	7	14	6.5	
	8	49	22.8	
	9	2	.9	
	10	69	32.1	
	11	2	.9	
	12	2	.9	
	Total	**215**	**100.0**	
Mean	Median	Minimum	Maximum	N
7.60	8.00	3	12	215

4.3.10 Mokwa-Bida-Lapai road part of it

The commercial motorcycle operators in the study area were further interviewed whether the Mokwa-Bida-Lapai road was part of the routes they plied daily (Table 4.19). Surprisingly, more than 96% of the commercial motorcycle riders reported that they plied the route. This is not surprising given the high traffic flow in the aforementioned route. This further confirms the findings in Figure 4.6 where Esso Motor Park was listed as one of the major routed plied by the operators daily.

Table 4.19: Mokwa-Bida-Lapai road part of it

	Frequency	Percent
Yes	207	96.3
No	8	3.7
Total	**215**	**100.0**

4.3.11 Daily operation time

The daily time of starting of operation among the commercial motorcycle riders in Bida is shown in Table 4.20. It can be seen that less than 2% of the operators start operation in the afternoon daily; while about 4% start operation by midnight. Interestingly, however, about 94% of the commercial motorcycle riders in the study area start operation in the morning daily.

The daily time for closing of operation among the commercial motorcycle riders in Bida is also shown in Table 4.20. The result shows that less than 1% of the operators closed from work daily in the afternoon; while none of the operators closed from work in the morning. On the aggregate, about 10% closed from work in the evening; while about 78% closed from work at night. The implication of this is that there is a tendency for higher passengers' availability for the commercial motorcycle riders in the study area in the afternoon.

Table 4.20: Daily operation time

Start time			Close time		
Time	Frequency	Percent	Time	Frequency	Percent
2:00pm	2	.8	1:30pm	1	.4
2:30pm	11	4.5	5:00pm	2	.8
6:00am	97	39.8	6:00pm	12	4.9
6:30am	62	25.4	6:30pm	1	.4
7:00am	30	12.3	7:00pm	9	3.7
7:30am	8	3.3	8:00pm	168	68.9
8:00am	4	1.6	8:30pm	22	9.0
8:30am	1	.4			
Total	**215**	**100.0**	**Total**	**215**	**100.0**

4.3.12 Operation by shift

The commercial motorcycle riders in Bida were interrogated whether they switched their bikes with someone else daily. Table 4.21 shows that the operators in the study area do not share their bikes with someone else. The implication of this is that the operators were the primary custodians of their bikes.

Table 4.21: Operation by Shift

		Frequency	Percent
	Yes	0	0.0
	No	215	100.0
	Total	**215**	**100.0**

Pursuant to the investigation on whether the commercial motorcycle riders share their bikes with someone else daily, an investigation was also carried out to specifically ascertain the number of hours they share their bikes with any other operator. Validating the result in Table 4.23, it can be seen in Table 4.24 shows that none of the operators reported sharing their bikes for any specified time frame.

Table 4.22: Number of hours of operation by shift

	Frequency	Percent
No	215	100.0

4.3.13 Operation training

Figure 4.7 examines whether the commercial motorcycle riders in Bida have acquired relevant training before joining the operation. The result shows that only about 16% of the operators have acquired relevant training before engaging in commercial motorcycle riding as their livelihood strategy. The implication of this is that there may be a need for organising and imparting vocational skills and expertise training for the operators.

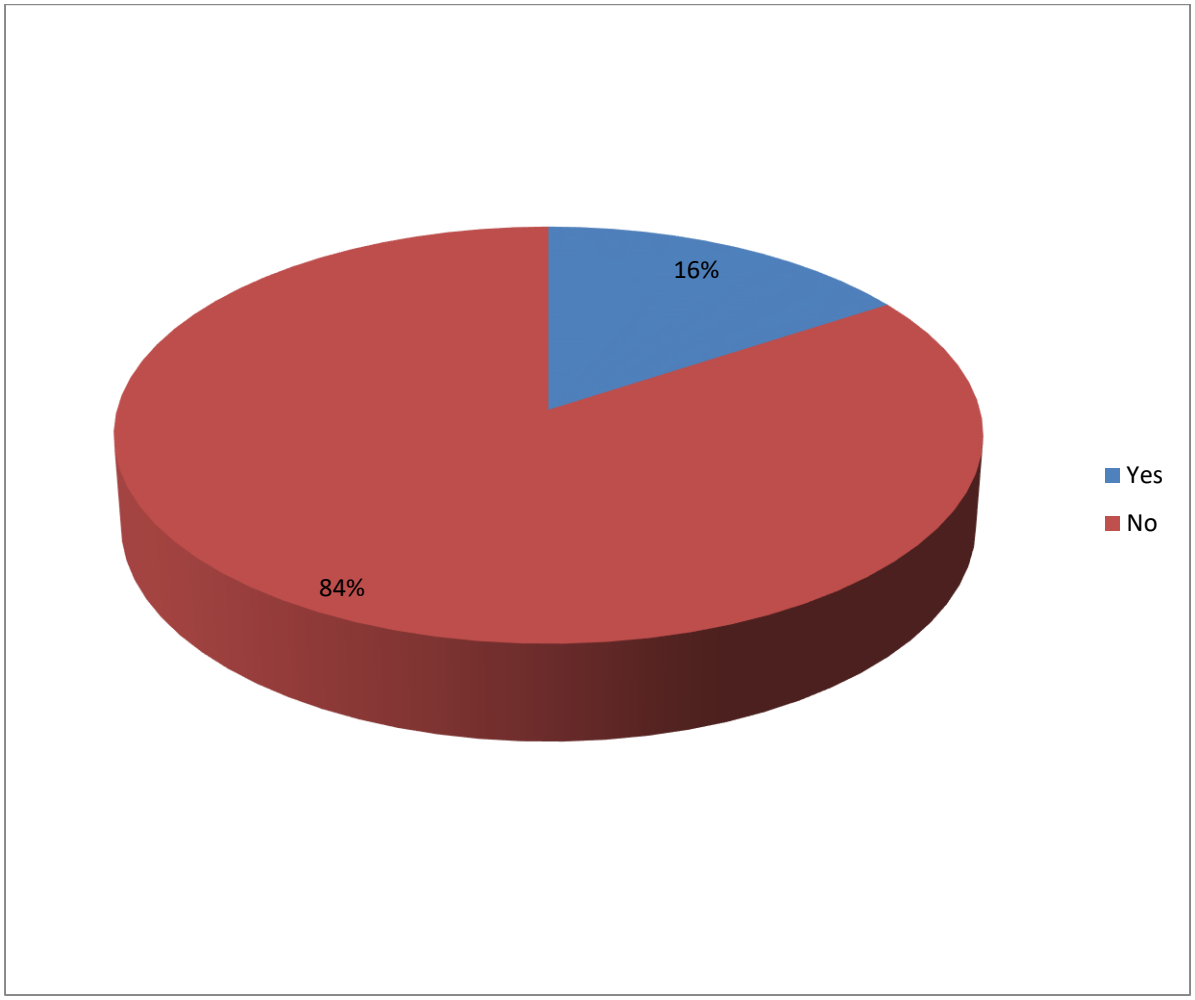

Figure 4.7: Operation of Skill

4.3.14 Length of training in months

The commercial motorcycle riders who reported that they acquired relevant and related training before adopting motorcycle operation as a livelihood strategy were asked to specify their length of training in months. The result in Table 4.24 shows that none of the operators acquired more than 1 month training on commercial motorcycle riding in the study area. Lack of training is seen in misbehaving on the roads; disregard for traffic regulation; shear hooliganism disposition of the riders and the spat of accidents experienced through commercial motorcycles on the urban roads in Nigeria.

Table 4.23: Length of training in months

		Frequency	Percent	
	0	181	84.2	
	1	34	15.8	
	Total	**215**	**100.0**	
Mean	Median	Minimum	Maximum	N
1.00	1.00	1	1	33

4.3.15 Daily number of trips

The daily number of trips of the commercial motorcycle riders in Bida was also inquired. Table 4.25 shows that the minimum number of trips is 10 trips; while the maximum is 35 trips. Proportionally, more than 92% of the operators made 20 to 35 trips per day, indicating availability of passengers. The implication of this is that there is a viable market for investment in intra-urban mass transport services in the study area.

Table 4.24: Daily number of trips

Frequency		Percent		
10		3		1.4
12		2		.9
15		11		5.1
18		1		.5
20		99		46.0
25		55		25.6
28		1		.5
30		41		19.1
32		1		.5
35		1		.5
Total		**215**		**100.0**
Mean	Median	Minimum	Maximum	N
22.87	20.00	10	35	215

4.3.16 Services rendered

The things mostly carried by the commercial motorcycle operators in Bida are shown in Table 4.26. It was found that about 76% of the operators were majorly passenger carriers; while less than 1% were specialised in freight transport. Interestingly, however, about 24% reported that they carried both passengers and freight.

Table 4.25: Services Rendered

Frequency		Percent
Passengers	163	75.8
Commercial products	1	.5
Passengers and Commercial products	51	23.7
Total	**215**	**100.0**

4.3.17 Main route plied daily

The main route plied daily by the commercial motorcycle riders in the study area is shown in Figure 4.8. The study found that the road dominated by the commercial motorcycle riders was the Bida-Mokwa-Lapai road. This is in consonance with earlier finding reported in Table 4.18. The implication of this is that Bida-Mokwa-Lapai road carries heavy traffic flow and is therefore susceptible to traffic congestion.

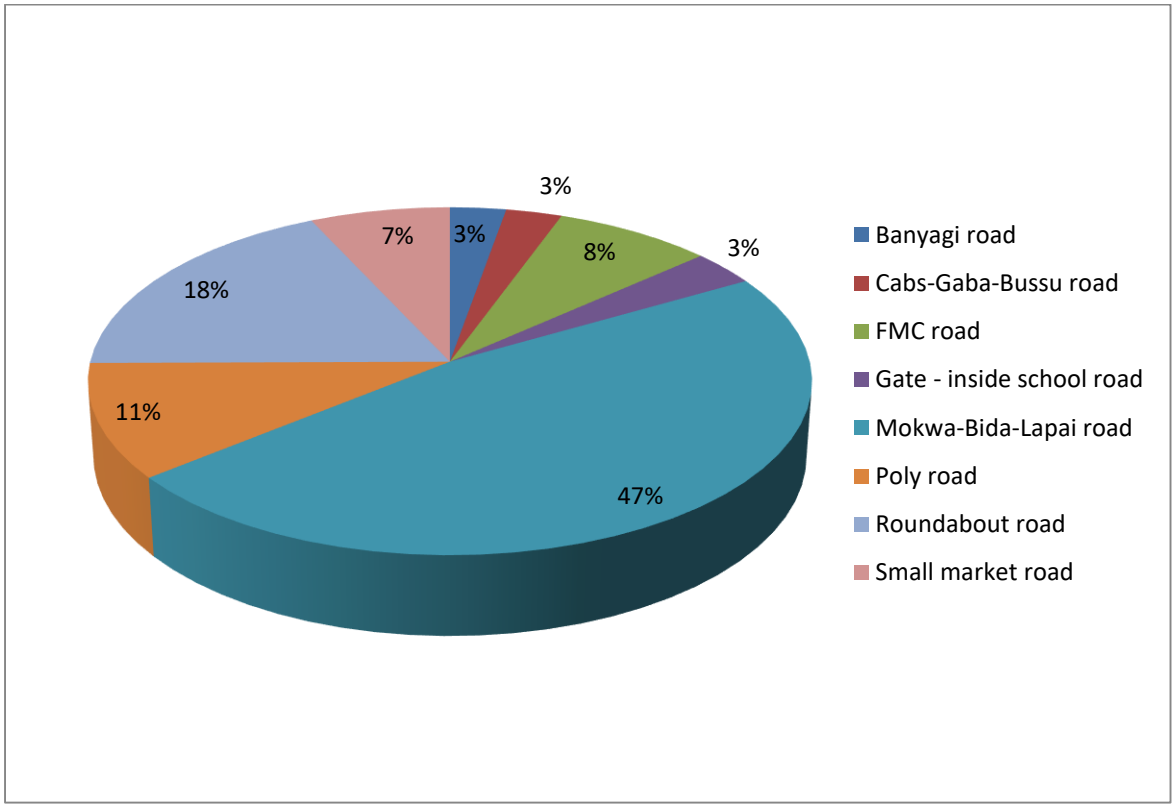

Figure 4.8: Main routed plied daily

4.3.18 Licensing

The commercial motorcycle riders' license status was also examined. Table 4.27 shows that commercial motorcycle operators in Bida were duly licensed. The implication of this is that they are legitimate operators of the business. This is a commendable step towards the securitisation of their livelihoods.

Table 4.26: Licences for the business

	Frequency	**Percent**
Yes	215	100.0
No	0	0.0
Total	**215**	**100.0**

4.3.19 Payment of levies/tax

Commercial motorcycle riders' payment of tax and/or levies in Bida was also investigated. Table 4.28 shows that all the commercial motorcycle operators in the study area pay stipulated taxes and levies. This may not be unconnected with the fact that they were licensed operators of the business as shown earlier in Table 4.26. The implication of this is that, contrary to other livelihood strategies in the informal sector, commercial motorcycle riders are not tax evaders.

Table 4.27: Payment of levies/tax

	Frequency	**Percent**
Yes	215	100.0
No	0	0.0
Total	**215**	**100.0**

Following the findings in Tables 4.27 and 4.28, the commercial motorcycle riders were asked to state those to whom they pay tax. Table 4.29 shows that all the operators of the business pay their levies and tax to welfare association and the Local Government respectively. This was done hand in hand, given that the same people were the collectors of both the levies and the tax.

Table 4.28: Specific tax collectors

	Frequency	Percent
Welfare association/ Local government	215	100.0
No	0	0.0
Total	**215**	**100.0**

4.3.20 Payment amount

The results in Tables 4.27, 4.28 and 4.29 prompted further interrogation on the amount paid by the commercial motorcycle riders in the study area as tax/levies daily. The operators reported that they are charged N60 daily; N30 each to both the welfare association and the Local Government (Table 4.30). The implication of this is that they are inevitable tax payers owing to the fact that they do not operate without the requisite tax clearance daily.

Table 4.29: Payment amount

	N	Frequency	Valid Percent
Daily payment	60	215	100.0
Weekly payment	0	0	0.0
Monthly payment	0	0	0.0
Annual payment	0	0	0.0
Total		**215**	**100.0**

Mean	Median	Minimum	Maximum	N
60.00	60.00	60	60	215

4.3.21 Operation or service challenges

The commercial motorcycle riders' experience of challenges in Bida was also examined. Table 4.31 shows that about 93% of the operators face diverse challenges that threaten their livelihoods. The implication of this is that the livelihood of the commercial motorcycle riders in the study area is vulnerable to stresses and shock and consequently insecure. Therefore, their livelihood security and sustainability are threatened.

Table 4.30: Operation or service challenges

	Frequency	Percent
Yes	200	93.0
No	15	7.0
Total	**215**	**100.0**

Figure 4.9 shows the specific challenges faced by the commercial motorcycle riders in Bida. About 58% of the operators cited traffic regulations as the major challenges they face in carrying out their livelihood activity; while about 14% stated that road accidents were their major challenge. However, about 13% and 8% of the operators cited bad roads and harassment from security agents as the major challenges to their livelihood respectively. The tendency towards lawlessness is seen in seeing traffic regulation as a challenge. None of the challenges is personal to them in terms of economic attractiveness of the business.

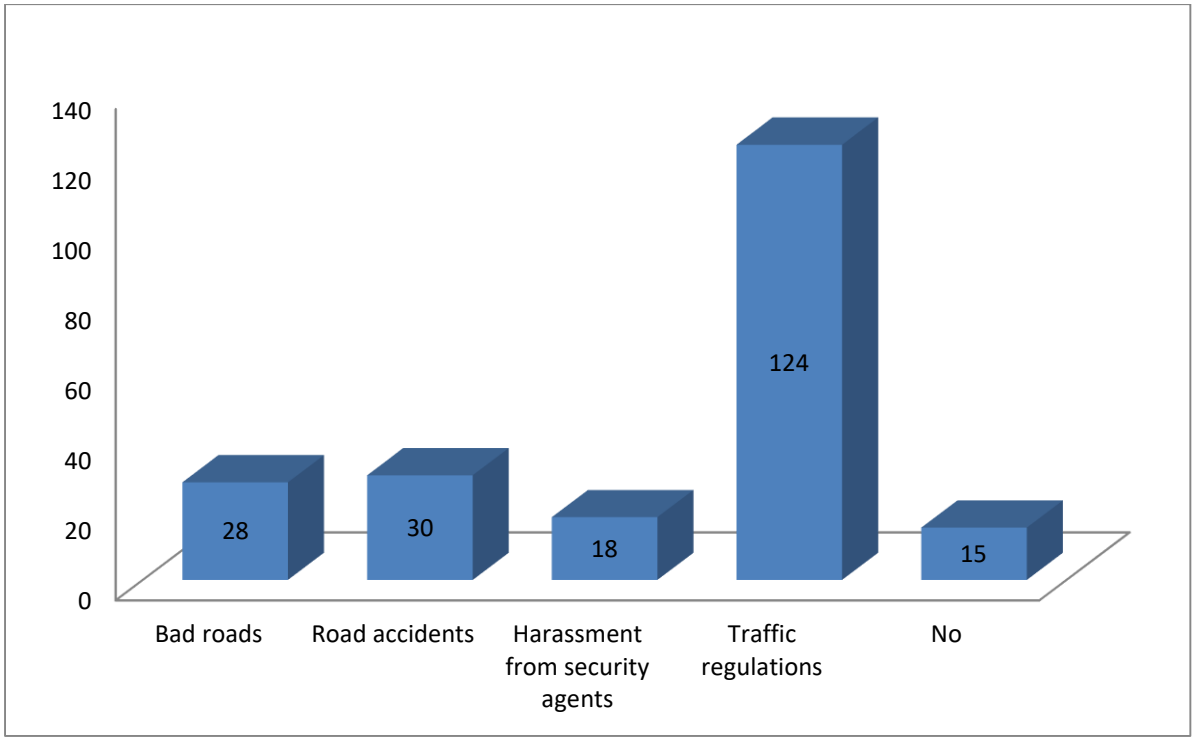

Figure 4.9: Specific challenges faced

4.3.22 Ever lost your motorcycle

Table 4.32 examined whether the commercial motorcycle riders in Bida have ever experienced loss of their motorcycle. About 20% of the operators reported that they have experienced the aforementioned loss.

Table 4.31: Ever lost your motorcycle

	Frequency	Percent
Yes	43	20.0
No	172	80.0
Total	**215**	**100.0**

Table 4.33 present the specific nature of losses experienced by the commercial motorcycle riders in Bida. It was found that about 42% were robbed of their bikes; while the bikes of about 58% who have experienced loss of their motorcycles were stolen. The implication of this is that commercial motorcycle riders are exposed to threats.

Table 4.32: Specific nature of loss

	Frequency	Percent
Robbery	18	41.86
Theft	25	58.14
Total	**43**	**100.0**

4.3.23 Intensity of the specific challenges faced

Table 4.34 present the intensity of the specific challenges faced by the commercial motorcycle riders in Bida. Research reveals that the most serious challenge experienced by the commercial motorcycle riders in Bida were exposure to pollution (64%) and

accidents (24%). However, although some of the commercial motorcycle riders have experienced robbery and theft of their motorcycles, more than 85% of the riders consider robbery and theft respectively as serious problem to their livelihood.

Table 4.33: Intensity of the specific challenges faced

Challenge	Most serious		Serious problem		Somehow serious		Less serious		Not serious	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Robbery	23	10.7	0	0	0	0	9	4.2	183	85.1
Theft	14	6.5	1	0.5	9	4.2	10	4.7	181	84.2
Accidents	1	0.5	51	23.7	131	60.9	10	4.7	22	10.2
Seizure by law enforcement	1	0.5	15	7.0	65	30.2	13	6.0	121	56.3
Irregular daily return	0	0	5	2.3	45	20.9	7	3.3	158	73.5
Harassment from motorist	1	0.5	8	3.7	195	90.7	1	0.5	10	4.7
Harassment from passengers	1	0.5	14	6.5	197	91.6	1	0.5	2	0.9
Exposure to weather elements	3	1.4	30	14.0	176	81.9	3	1.4	3	1.4
Exposure to pollution	13	6.0	137	63.7	64	29.8	1	0.5	0	0

4.3.24 Operational safety measures

Table 4.35 investigates whether the commercial motorcycle riders in Bida take precautionary measures against accidents in the practice of their daily livelihood strategy. It was found that about 92% practice precautionary measures. However, it is quite worrisome to note that more than 8% of the operators reported that they do not practice precautionary measures against accidents. The implication of this is that they are at higher risk of securing accidents.

Table 4.34: Operational safety measures

	Frequency	Percent
Yes	197	91.6
No	18	8.4
Total	**215**	**100.0**

Table 4.35 shows the specific number of safety kits possessed by the commercial motorcycle riders in Bida. It was found that none of the commercial motorcycle riders in the study area possessed more than one helmet and hand glove respectively. However, the study found that the highest number of safety kits possessed by the commercial motorcycle riders in the study area were in terms of boots, sweaters and eye glasses. The implication of this is that the operators may require more adoption of safety kits in the practice of their business.

Table 4.35: Specific number of safety kits possessed

Safety kits	Number of kits							
	None		One		Two		Three	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Helmet	215	100	0	0	0	0	0	0
Eye glass	18	8.37	126	58.60	63	29.30	8	3.72
Hand glove	215	100	0	0	0	0	0	0
Boot	162	75.35	53	24.65	0	0	0	0
Sweater	77	35.81	129	60.0	8	3.72	1	0.5

4.3.25 Suggestions on how to overcome the challenges

Figure 4.10 shows the suggestions of the motorcycle riders on how to overcome the challenges faced in the practice of their livelihood. About 40% suggested that compliance to traffic regulations may minimise the challenges encountered; more than 12% suggested the need for the adoption and use of safety kits; more than 9% suggested the need for the repair of the township roads in the study area; while about 5% suggested that the avoidance of night operation may limit the challenges experienced. The implication of this is that the eradication of these challenges is the joint effort of the government and the riders. The effort of the government is seen in the repair of the roads; while the bulk of the efforts regarding compliance with traffic regulations, adoption and use of PPE and avoidance of night driving rests in the commercial motorcycle riders in the study area.

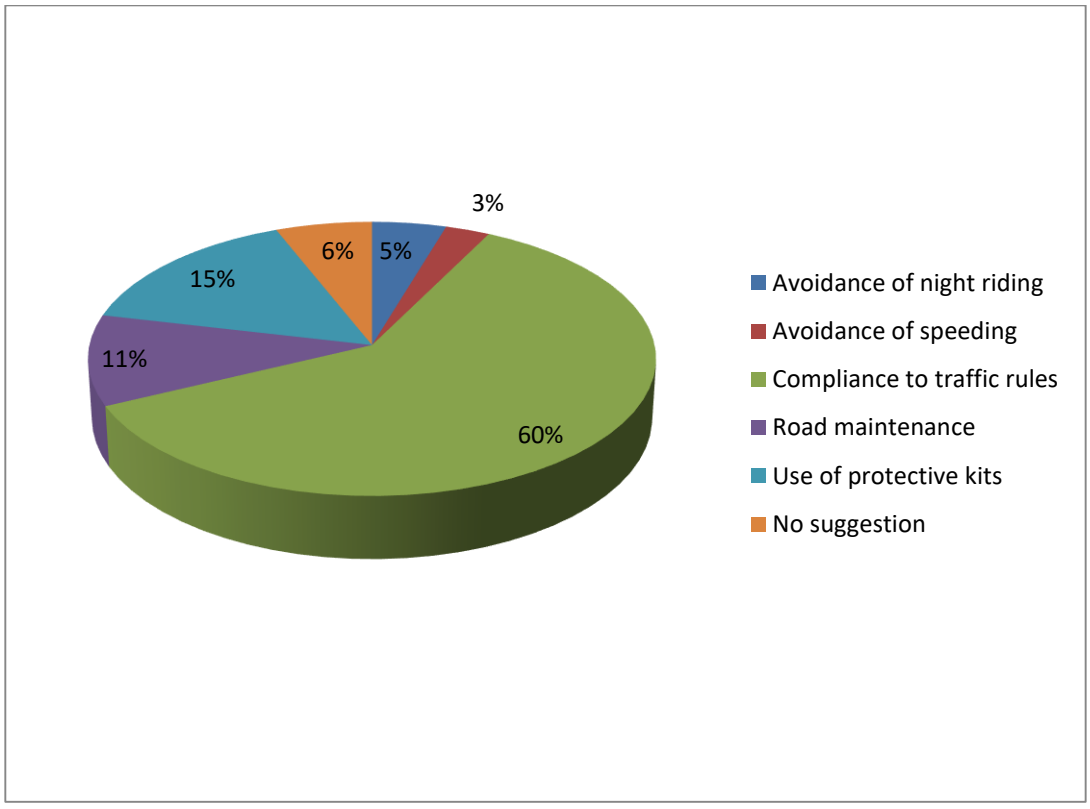

Figure 4.10: Suggestions on how to overcome the challenges

4.3.26 Frequency of use of safety kits

Table 4.36 shows the frequency of the use of safety kits by the commercial motorcycle riders in Bida. The result shows that less than 12% of the operators reported that they do not use safety kits regularly when practicing their livelihood strategy. However, this is not a negligible percentage given that safety is a public concern.

Table 4.36: Frequency use of safety kits

	Frequency	Percent
Very often	83	38.6
Often	107	49.8
Rarely	25	11.6
Total	**215**	**100.0**

4.4 Livelihood Activities of Commercial Motorcycle Operators

4.4.1 Membership of association

Table 4.37 interrogated whether the commercial motorcycle riders in Bida were members of vocational/business associations. The result shows that all the operators were members of association. The implication of this is that the operators were aware of the importance of social capital to their livelihood strategy.

Table 4.37: Membership of association

	Frequency	Percent
Yes	215	100.0
No	0	0.0
Total	**215**	**100.0**

Following the findings in Table 4.38, the commercial motorcycle riders in the study area were asked the number of associations they belonged to. Table 4.30 indicates that all the commercial motorcycle riders in Bida belonged to only one association (ACOMORAN).

Table 4.38: Number of associations

	Frequency	Percent
One	215	100.0
None	0	0.0
Total	**215**	**100.0**

4.4.2 Membership of specific association

The specific association of the commercial motorcycle riders in Bida was also examined as shown in Table 4.39. The result shows that they belonged to Amalgamated Commercial Motorcycle Riders Association of Nigeria (ACOMORAN). The implication of this is that the commercial motorcycle riders in Bida shared social capital with other operators of the livelihood at the national level.

Table 4.39: Membership of specific association

	Frequency	Percent
ACOMORAN	215	100.0
None	0	0.0
Total	**215**	**100.0**

4.4.3 Leadership of association

Further enquiries were made to determine whether the commercial motorcycle riders in the study area were leaders in their stated association. Table 4.40 shows that less than

2% of the operators held leadership positions. The implication of this is that the practice of the business does not depend on leadership position of the operator.

Table 4.40: Leadership of association

	Frequency	Percent
Yes	3	1.4
No	212	98.6
Total	**215**	**100.0**

Following the result presented in Table 4.41, the operators who held leadership positions were asked to specify their portfolios. Table 4.33 shows that about 67% of the operators reported that they were unit chairmen of their various units; while about 33% reportedly occupied the secretarial position. The implication of this is that the officials of their associations were also active commercial motorcycle operators.

Table 4.41: Portfolio

	Frequency	Valid Percent
Unit Chairman	2	66.67
Unit vice chairman	1	33.33
Total	**3**	**100.0**

4.4.4 Daily income before joining the business

The daily income of the commercial motorcycle riders in Bida before joining the commercial motorcycle riding business is shown in Table 4.42. The result shows that none of the commercial motorcycle operators in the study area earned more than N1,500; while about 37% had no noticeable daily income before joining the business. On the aggregate, about 74% of the operators had less than N1,000 daily income before

joining the business. The implication of this is that majority of the commercial motorcycle riders in Bida were income poor prior to joining the commercial motorcycle operation livelihood.

Table 4.42: Daily income before joining the business

		Frequency	Percent
	0	79	36.7
	500	5	2.3
	600	7	3.3
	700	37	17.2
	800	29	13.5
	900	1	.5
	1000	48	22.3
	1200	7	3.3
	1500	2	.9
	Total	**215**	**100.0**

Mean	Median	Minimum	Maximum	N
863.93	800.00	500	1500	135

4.4.5 Daily income from the business

The current daily income of the commercial motorcycle riders in Bida from the practice of their business is shown in Table 4.43. By comparison to the initial income of the riders as earlier shown in Table 4.42 where about 74% earned less than N1,000 daily, less than 4% of the commercial motorcycle riders in the study area earned less than N1,000 daily from the business. Similarly, the minimum and maximum daily income of the operators rose from N0 and N1,500 to N800 and N2,500. The implication of this is

that commercial motorcycle riding has improved the financial capital base of the operators and consequently contributes in lifting them out of the income poverty trap.

Chi square test was conducted to determine the relationship between the income of the commercial motorcycle operators before and after joining the business. The result found that there is a statistically significant difference in the income of the commercial motorcycle riders before and after they joined the business (X^2 = 150.457, df = 40, p = <0.005). Therefore, the null hypothesis was rejected.

Table 4.43: Daily income from the business

		Frequency	Percent	
	800	7	3.3	
	1000	32	14.9	
	1200	83	38.6	
	1500	83	38.6	
	2000	7	3.3	
	2500	3	1.4	
	Total	**215**	**100.0**	
Mean	Median	Minimum	Maximum	N
1295.81	1200.00	800	2500	215

4.4.6 Practice daily and weekly savings

Considering the daily income of the commercial motorcycle riders in Bida, further investigation was carried out to determine whether they practised daily savings. Figure 4.11 shows that about 93% of the operators practised daily savings. Surprisingly, however, about 7% reported that they do not save a fraction of their income daily. The

implication of this is that those who do not save daily from commercial motorcycle riding may be engaged in the activity as a survivalist livelihood strategy.

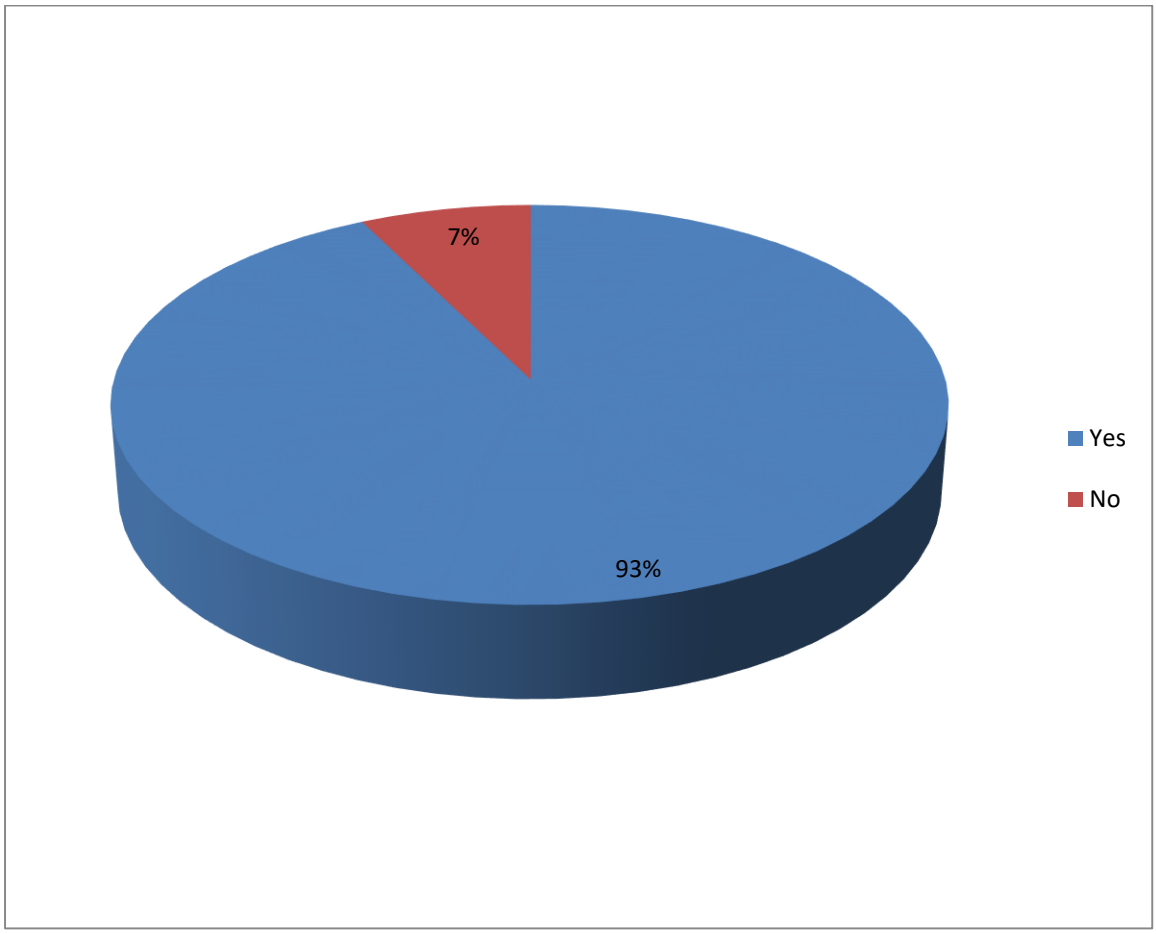

Figure 4.11: Practice daily savings

The commercial motorcycle riders who reported that they practiced daily savings were further enquired to state their aggregate weekly savings. It was found that none of the commercial motorcycle riders saved less than N2000 ; while none saved more than N7000 weekly respectively (Table 4.44). The implication of this is that the participation of the riders in the adoption of commercial motorcycle riding as a livelihood strategy has improved their financial management awareness.

Table 4.44: Weekly savings amount

		Frequency	Percent	
	2000	60	27.9	
	5000	116	54	
	7000	23	10.7	
	Total	**215**	**100.0**	
Mean	Median	Minimum	Maximum	N
1338.69	1400.00	1000	2000	199

4.4.7 Livelihoods improvement from commercial motorcycle riding

The livelihood improvement from commercial motorcycle riding in Bida is shown in Table 4.45. The result shows that about 20% of the operators have bought their motorcycles; more than 27% have established other businesses; about 93% have been able to enrol their children in schools; about 24% have built their houses; about 93% have created savings accounts as a result of their adoption of commercial motorcycle riding as their livelihood strategy. It is interesting to also note that all the commercial motorcycle riders have experienced an improvement in their income status as a result of their operation of commercial motorcycles as a livelihood strategy. Therefore, commercial motorcycle riding improves the operators' saving ability. However, it is worrisome that none of the commercial motorcycle riders reportedly acquired additional skills. The implication of this is that their competitive ability may be undermined.;

Table 4.45: Forms of livelihoods improvement from commercial motorcycle riding

Achievement as a result of the business	Agreement rating									
	Strongly agree		Agree		Neither agree nor disagree		Disagree		Strongly disagree	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Bought my motorcycle	42	19.5	0	0	0	0	12	5.6	161	74.9
Owned another business	59	27.4	0	0	0	0	16	7.4	140	65.1
Pay children school fees	200	93.0	1	0.5	1	0.5	1	0.5	12	5.6
Built a house	51	23.7	0	0	0	0	11	5.1	153	71.2
Savings account	200	93.0	0	0	0	0	2	0.9	13	6.1
Acquired additional skills	0	0	0	0	0	0	215	100	0	0
Improved income status	215	100	0	0	0	0	0	0	0	0

4.4.8 Specific physical capital base developed by the commercial motorcycle riders

The specific physical capital base developed by the commercial motorcycle riders in Bida is shown in Figure 4.12. The result shows that the physical capital base of the commercial motorcycle operators in Bida is relatively low. In terms of real estate, none of the operators have obtained more than one plot of land or house.

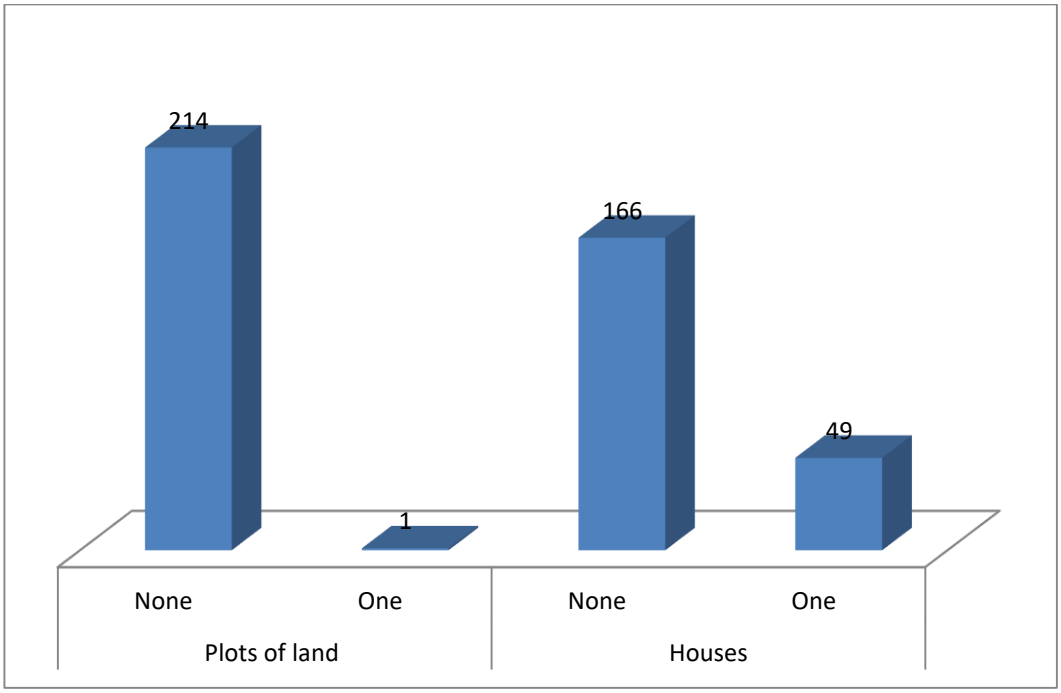

Figure 4.12: Real estate assets

The commercial motorcycle riders in the study area have acquired considerable amount of household-based assets as shown in Figure 4.13. The common household based assets possessed by the commercial motorcycle riders were fridge, freezer, video game player, generator or rugs as a result of commercial motorcycle riding. Similarly, the commercial motorcycle riders showed technological pre-modernity. For instance, none of the riders owned a computer or solar panel; although about 46% owned at least one android (or internet-enabled) phone. Interestingly, however, more than 92% had more than 6 plates and more than 8% had more than 6 kitchen utensils.

Table 4.46: Household base assets

Household-based assets	None		One		More than one	
	frequency	percent	Frequency	percent	frequency	percent
Fridge	176		39		0	
Freezer	191		24		0	
Generator	195		20			
Furniture	148		0		67	
Rug	200		15		0	
Plates	24		0		191	
Kitchen utensils	24		0		191	
Total	**215**	**100**		**100**	**215**	

In terms of the information-based assets as shown in Figure 4.14, about 62% of the commercial motorcycle riders reportedly owned televisions while about 61% owned radio sets. Furthermore, more than 40% owned android phones; while about 80% owned non-android phones. This is an indication of access to information among the commercial motorcycle riders in Bida.

Table 4.47: Information base assets

Information based assets	None		One		More than one	
	frequency	percent	frequency	percent	frequency	Percent
Television	50		165		0	
Radio set	96		118		0	
Home theatre	197		19		0	
Video game players	203		12		0	
Android phone	200		15		0	
Phone (not android)	24		0		191	
CD tapes	24		0		191	
Total	**215**	**100**	**215**	**100**	**215**	**100**

4.4.9 Specific alternative livelihoods of commercial motorcycle riders in Bida

Livelihoods diversification is an important aspect of livelihood security on the one hand, and livelihood sustainability on the other. Table 4.46 shows the alternative livelihoods of the commercial motorcycle riders in the study area. The most noticeable alternative livelihood strategy of the commercial motorcycle riders in Bida is sales trading with about 16% of the operators reporting that they were involved in the sale of several commodities. On the other hand, about 3% engaged in poultry farming; about 5% were engaged in goat rearing; while about 7% of the commercial motorcycle riders in Bida were engaged in crop farming. The implication of this is that the commercial motorcycle riders in the study area engaged in diverse alternative livelihood strategies.

Table 4.48: Specific alternative livelihoods of commercial motorcycle riders in Bida

Specific alternative livelihood	Number	Frequency	Percent	Total	
				Frequency	**Percent**
Farming (Ha)	Number			215	100
	0	201	93.5		
	4	4	1.9		
	5	8	3.7		
	6	2	.9		
Goats rearing	0	205	95.3		
(number)	10	2	.9		
	12	1	.5		
	15	2	.9		
	16	1	.5		
	20	4	1.9		
Poultry farming	0	208	96.7		
(number)	20	2	.9		
	30	2	.9		
	40	1	.5		
	50	2	.9		
Sales trading	Amount (~~₦~~)				
(Amount in Naira)	0	181	84.2		
	20,000	1	.5		
	24,000	1	.5		
	25,000	1	.5		
	30,000	17	7.9		
	36,000	1	.5		
	45,000	8	3.7		
	50,000	3	1.4		
	60,000	2	.9		

4.4.10 Sources of livelihood financial support

Table 4.47 examined the sources of livelihoods support accessed by the commercial motorcycle riders in the study area. The result shows that only Microfinance loans and Federal Government Covid-19 loan have been accessed by about 12% and 9% of the commercial motorcycle riders in Bida. For those who accessed official support from microfinance banks, the loan amount was N150,000; while those who accessed the Covid-19 loan reported that the loan amount they accessed was N30,000. The implication of this is that the commercial motorcycle operators suffer from inadequate access to official support for livelihood improvement.

Table 4.49: Sources of livelihood financial support

Source of support	Support Scheme	Support Amount (₦)	Frequency	Percent
Microfinance banks	Bayetin	150,000	30	12.3
		None	185	75.8
Commercial banks		None	215	100
Federal Government		None	215	100
poverty programmes	TraderMoni	None	215	100
	FarmerMoni	None	215	100
	Covid-19 loan	None	196	91.2
		30000	19	8.8
Bank of Industry		None	215	100
Local Government		None	215	100
Politicians	Ward Councillor	None	215	100
	LGA Chairman	None	215	100
	House of Assembly Member	None	215	100
	House of Representatives Member	None	215	100
	Senator	None	215	100
	Any other politician	None	215	100
Independent Organisations	NGOs	None	215	100
	CBOs	None	215	100
	FBOs	None	215	100
United Nations Agencies		None	215	100
Individual grants and trusts		None	215	100
Other sources of support		None	215	100

4.4.11 Commercial motorcycle riders' perception of the business

The commercial motorcycle riders' perception of the business is presented in Table 4.48. The result shows that all the operators perceived the business as a satisfactory livelihood strategy. The implication of this is that the riders derive high level of job satisfaction from commercial motorcycle riding in Bida.

Table 4.50: Commercial motorcycle riders' perception of the business

	Frequency	Percent
Satisfactory	215	100.0
Total	**215**	**100.0**

4.5 Relationship between Operation in Commercial Motorcycle Riding and Livelihood Wellbeing of Operators

Linear regression analysis technique was used to assess the relationship between operation of commercial motorcycle and livelihood wellbeing. The result is shown in Table 4.49. It was found that there is a strong and positive relationship between operation of commercial motorcycle and livelihood wellbeing (R^2 = .714; df = 26; p = <.005). The null hypothesis was that there is no statistically significant relationship between operation of commercial motorcycles and livelihood wellbeing and was therefore rejected.

Table 4.51: Relationship between operation in commercial motorcycle riding and livelihood wellbeing of operators

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	df2	Sig. F Change
1	.810[a]	.714	.790	2.434	.714	39.705	26	241	.000

a. Predictors: (Constant), Gotten certified, Bicycle, Solar panel, Face mask, Obstacles to Machinery, Television set, Acquired a car, Fridge, Generator, Computer, Kitchen utensils, Houses, Home theatre, Android phone, Radio set, Learnt a skill, CD Tapes, Freezer, Plot of land, Furniture, Non-Android phone, Rug, Established other branches, Plates, Car (taxi)

4.6 Summary of Findings

The following are findings from the study results**:**

I. As regards to the socioeconomic characteristics, the most participatory age in commercial motorcycle riding in Bida is between 38-40 years with 94 percent married. Their general mean family size is 8.22. All the respondents were male. Greater percentage of the riders has formal education. Majority of the riders spent more years in school with 10.8 years on average. About 38% of the riders lived on the business as their primary livelihood strategy while majority of them engaged in farming as their primary means of living. It was discovered from the study that, greater percentage of the riders resided in Bida while others resided

outside the study area. Between year 2013-2015 greater percentage of riders were involved in starting the business. Majority of the riders have averagely used 3.7 bikes. Greater percentage of the riders are the owner of the motorcycle they used for the business. Majority of the riders owned 1.3 bikes averagely. Greater percentage of the riders used personal savings as source of income in purchasing their bikes. About 37% of the riders were jobless before joining the business while majority were farmer.

II. In terms of spatial characteristics of commercial motorcycle riding, eleven main commercial motorcycle parks were identified in the study area. The spatial distribution of commercial motorcycle parks within Bida town indicates that there's availability of commercial motorcycle in the study area. Out of the eleven parks identified esso neighbourhood and poly area have more parks with three each averagely.

III. From view of operation services, greater percentage of the riders engaged in full time operation. Majority of the riders operated at night as part time work while about 1% operated in the afternoon. Greater Percentage of the riders plied 7.6 routes averagely daily. Majority of the riders plied Mokwa-Bida-Lapai road daily. Greater percentage of the operators resumed operation daily in the morning and closed in the night. All the operators indicates that they do not shared their bike with any other operator. Majority of the riders revealed that they do not acquired any relevant training before engaging in commercial motorcycle riding ad their livelihood strategy while few that acquired training indicates that it was not more than one month. Greater percentage of the riders made 22.9 trips averagely per day. Majority of the riders carried only passenger. All the riders were duly licensed, also all riders paid stipulated taxes and levies

to welfare association/local government; N30 each. All the riders were member of association known as Amalgamated Commercial Motorcycle Riders Association of Nigeria (ACOMORAN). Less than 2% of the riders held leadership position while majority did not hold any leadership position of the association. Majority of the riders faced diverse challenges that threaten their livelihoods. Greater percentage of the operators cited traffic regulations as the major challenges they are face in carrying out their livelihood activity. About 20% of the riders said they have lost their motorcycle due to either robbery or theft. Majority of the operators indicates that the most serious challenge experienced during operation were exposure to pollution and accidents. Greater percentage of the riders practice precautionary measure against accidents. Majority of the operators suggested that compliance to traffic rules and use of safety kits may minimize the challenges encountered.

IV. With regards to livelihood activities of commercial motorcycle operators, majority of the commercial motorcycle riders earned an average of N800 before joining the business while also greater percentage earned an average of N1500 from the business. Majority of the operators practised daily savings with about N5000 saved weekly. Greater percentage of the operators revealed that they have experienced an improvement in their income status as result of their operation of commercial motorcycle as livelihood strategy. None of the riders reported acquired additional skills. Greater percentage of the riders suffer from inadequate access to official support for livelihood improvement. All the commercial motorcycle riders perceived the business as a satisfactory livelihood strategy.

V. In terms of the relationship between operation activities and livelihood wellbeing of operators, majority were satisfied with commercial motorcycle riding and lived better with job opportunities in the business which contributed to their general wellbeing.

CHAPTER FIVE

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The study analyzed the livelihood impact of commercial motorcycle riding in Bida, Niger State. The study concludes that; commercial motorcycle operation has a great impact to the livelihood improvement of the riders in Bida and facilitate movement of individual within the town, hence increase social integration, also it influence the accessibility of the various service most especially in the in the study area.

The study revealed that motorcycle operation is flexible mode of transport which not only allow movement of passengers only, but it also carry other goods especially business goodss which facilitate the growth of the particular business which depend on the transport offered by motorcycle operation. However, commercial motorcycle also found to be the source of employment and income gaining opportunity especially to youth which from the study many respondents from population sample who ride commercial motorcycle were found to be aged 27 up to 40 years.

Also the livelihood of motorcycle riders are not influenced by the motorcycle operation itself but it also contributed by other activities which resulted mostly from commercial motorcycle business whereby the operation have various constrains which undermine the earnings and savings obtained hence lead for the commercial motorcycle rider to find other alternatives means to maximize their income earnings.

Apart from the challenge face commercial motorcycle operators, using of protective kits were revealed from the study to be not effective way of precaution taken by the operator

from accidents and motorcycle crashes. However this indicate that the traffic rules on the segment of wearing helmet has not been implemented by the most of commercial motorcycle riders. Generally the study has shown that the commercial motorcycle has played significant role in contributing to livelihood improvement and reduce income poverty.

5.2 Recommendations

I. Firstly, Government should formalize and regulate the activities of commercial motorcycle riders to strengthen the business. In this way, transport service delivery to the people will be enhanced; earnings of the motorcycle riders will equally be improved to maximize their welfare. It also fill the gap of employment problem especially for youth who are the majority of the population density of this nation.

II. Also effort should be made by government to rehabilitate bad roads. Lack of skills and little awareness concerning road and traffic regulation was found to undermine commercial motorcycle operation in the study area. Training and retraining of commercial motorcycle riders related to traffic regulation, health education and use of protective kits should be emphasized and proper enforcement should be undertaken regularly for the protection of riders and their passengers, and to avoid accident on the road.

III. Similarly, to ascertain the level of experience in riding, riders should be made to undertake tests, training and license before they can be permitted to operate on the road.

IV. Public, private, non-governmental organizations and civil society (both local and international recognized organizations) should provide support to commercial

motorcycle riders for livelihood strategies and an approach such as grants for sustainable livelihoods and improve wellbeing so as to reduce poverty in the study area. Transportation policies need to be harmonized, improved and even new ones enacted. There is a need of looking at aspects other than policies for transportation such as traffic rules and penalty due to traffic offences.

V. Finally, most of the challenges facing commercial motorcycle operation are found to be caused by the riders themselves, hence commercial motorcycle operators should follow and observe the traffic regulations and use of protective kits so as to minimize the risk of accidents and damage of the bikes. Sustainable livelihood to the commercial motorcycle operator will not be attained unless these challenges are addressed.

5.3 Contributions to Knowledge

Previous studies focused primarily on the transportation demand and supply sides of commercial motorcycles on the one hand, and the environmental and health implications on the other hand. Little have been done to assess the livelihood impacts of commercial motorcycle operation, despite the contribution of the livelihood to a reduction in unemployment and poverty rates. This bias in literature may be responsible for the multiplicity of public policies geared towards discouraging motorcycle operation as a livelihood strategy. This study, therefore, analysed the livelihood impacts of commercial motorcycle operation to cover this knowledge gap.

This study also shows that commercial motorcycle operation could be recognized as a new measure for poverty reduction in Bida. It also shows that commercial motorcycle operation is a viable employment, thus contributing to a decrease in unemployment rate.

5.4 Proposition for Further Research

This study analysed the livelihood impact of commercial motorcycle operation in Bida. This approach to the analysis of commercial motorcycle operation in the urban area, that is, the livelihood approach, is relatively new and has not gained adequate research attention. This implies that there is a need to adopt the livelihood approach to carry out similar studies in different cities and countries.

In addition, this study only analysed the impact of the operation of commercial motorcycle as a livelihood strategy. Further studies are required to establish the livelihood impacts of commercial motorcycle importation, sale, coupling and maintenance or repairs.

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APPENDIX A (QUESTIONNAIRE)

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

SCHOOL OF POSTGRADUATE STUDIES

DEPARTMENT OF URBAN AND REGIONAL PLANNING

Questionnaires: This questionnaire is for the Analysis of Livelihood Impact of Commercial Motorcycle Riders in Bida Niger State.

NOTE: This questionnaire is strictly for academic purpose. Any information obtained will be treated with utmost confidentiality and respect for this research work only.

Please kindly answer this questionnaire by filling where appropriate.

BACKGROUND INFORMATION

1. Age…….
2. Gender (1) Male { } (2) Female { }
3. Marital Status? (1) Single { } (2) Married { } (3) Divorced { } (4) Separated { }
4. Family Size…….
5. Is commercial motorcycle riding your primary means of livelihood? (1) Yes { } (2) No { }
6. If no, indicate your primary means of livelihood……..
7. Level of education of the respondents? (1) No education { } (2) Primary education { } (3) Secondary education { } (4) Tertiary education { } (5) Adult education { } (6) Islamic education { }
8. Years spent in school…….

RIDERS INFORMATION / CHARACTERISTICS

9. What is the name of your place of residence? .....
10. When did you start commercial motorcycle riding?

    .....

11. How many machines have you used so far for commercial riding?

    …….

12. Are you the owner of the machine you are using now? (1) Yes { } (2) No { }

13. If you are the owner, how many motorcycles do you have? .....

14. If you are not the owner, what is the mode of employment in riding the machine:

    (1) Employee { } (2) Helping the owner { } (3) Renting the machine for daily use and return to the owner { } (4) Other forms of ownership

    (specify)…….

15. Ownership of the motorcycle? (1) Self { } (2) Employer { }

16. If self, how did you obtain money to acquire the motorcycle?

    …….....

17. Is this the only activity you do for a living? (1) Yes { } (2) No { }

18. If no, what other forms of activities you engaged in to support your living? List all that is

    applicable……..

19. What was your first occupation before joining the commercial motorcycle business? (1) Jobless { } (2) Farmer { } (3) Others,

    specify……

EARNINGS

20. What is your income per day before joining in commercial motorcycle business?.....
21. Income per day from commercial motorcycle business? .....
22. Do you have a license / registered for commercial motorcycle ridership? (1) Yes { } (2) No { }
23. Do you have savings? (1) Yes { } (2) No { }
24. If yes, how much do you save weekly? .....

OPERATIONS

25. Nature of commercial motorcycle work: (1) Full time { } (2) Part time { }
26. If part time, show your full time work (1) Morning to Afternoon { } (2) Afternoon to Night { } (3) Night only { }
27. How many routes do you ply daily?
28. Is the Mokwa-Bida-Lapai road part of it? (1) Yes { } (2) No { }
29. From which parts of Bida do you regularly carry passengers: (1) Old Market { } (2) New market { } (3) Small Market { } (4) Esso motor park { } (5) Cirico junction { } (6) FMC gate { } (7) Baddegi Lowcost junction { } (8) Poly junction { }(9) Fed poly gate { } (10) CABS gate { } (11) Others, specify……
30. When do you start work daily?
31. When do you close? .....
32. Do you exchange with somebody else at any time of the day? (1) Yes { } (2) No { }
33. If yes, how many hours do you spend working daily? .....
34. Do you have any training before commencing operation of commercial motorcycle? (1) Yes { } (2) No { }
35. If yes, how long is the training…….(months):
36. How many trips do you make per day? .....
37. What do you most carry in your motorcycle? (1) Passengers { } (2) Commercial products { } (3) Crops { } (4) Others, specify…….. ……..
38. What rout do you ply mostly? .....
39. Have you established any alternative livelihood activity as a result of your involvement in commercial motorcycle operation? (1) Yes { } (2) No { }

40. If yes, state the alternative livelihood activities…….

41. Do you pay any levy / tax? (1) Yes { } (2) No { }

42. If yes to whom (1) Welfare association { } (2) local gov't council { } (3) State gov't { } (4) Police { } (5) Others, specify……

43. Show the payment mode

Period	Amount paid as levy
Daily	
Weekly	
Monthly	
Annual	

44. Do you have association? (1) Yes { } (2) No { }

45. If yes, list them? .....

46. Which of the mentioned you are associated member? ……

47. Are you a leader of any? (1) Yes { } (2) No { }

48. If yes, indicate the portfolio?

…….

Answer the following questions by ticking the numbers 1 - 5

49. Since you started commercial motorcycle business, indicate the level of your satisfaction with the business as an economy activity

Benefits	Variables				
	1	2	3	4	5
I have bought my own motorcycle from commercial motorcycle business					
I have another business with earnings which resulted from commercial motorcycle business					
I sent my children to school due to commercial motorcycle business					
I have built a house due to commercial motorcycle business					
My income status has been improved due to commercial motorcycle business					
I have a savings accounts from commercial motorcycle business					

1= strongly agree, 2= Agree 3= Somehow agree 4= Disagree 5= strongly disagree

SPECIFIC LIVELIHOOD CONTRIBUTIONS

50. Skill acquired: Identify skills you have acquired since you started commercial motorcycle business……

51. Indicate assets you have acquired through this work

Assets	Number/units
Plot of land	
Houses	
Bicycle	
Fridge	
Freezer	
Car (taxi)	
Farmland (hectare)	
Television set	
Radio set	
Home theatre	
Video game players	

Handset (Android)	
Face mask	
Solar panel	
Furniture	
Phone (not android)	
Computer	
Machinery	
Generator set(s)	
CD Tape(s)	
Rug	
Plates	
Kitchen utensils	

CHALLENGES OF COMMERCIAL MOTORCYCLE OPERATION

52. Are there any challenges in commercial motorcycle operation? (1) Yes{ } (2) No { }

53. If yes, what are the challenges faced in the operation? (1) Bad roads { } (2) Road accidents { } (3) harassment from Security agents { } (4) Traffic regulation { } (5) Others, specify…….....

54. Have you ever lost your motorcycle? (1) Yes { } (2) No { }

55. If yes, how? (1) Robbery { } (2) Theft { } (3) Accidents { } (4) seizure from law enforcement agents { } (5) Irregular daily returns { } (6) Harassment from motorists { } (7) harassment from passengers { } (8) Exposure to weather elements { } (9) Exposure to pollution { } (4) others, specify……..

56. Rank the main problems affecting your business by using the following variables 1–5

Problem	Ranking				
	1	2	3	4	5
Robbery					
Theft					
Accidents					
seizure from law enforcement agents					
Irregular daily returns					
Harassment from motorists					
harassment from passengers					
Exposure to weather elements					
Exposure to pollution					

1= Most serious problem, 2= Serious problem, 3= somehow serious, 4= Less serious, 5= Not serious

57. Is there any precautions you take against accidents during operation? (1) Yes { } (2) No { }

58. Please suggest how these challenges can be overcome? .....

59. Riding kits

Kit	Number
Helmet	
Eye glass	
Hand glove	
Boot	
Sweater	

60. How often do you use these kits? (1) Very often { } (2) Often { } (3) Fairly often { } (4) Not often { } (5) Highly un-often

OTHER BUSINESS

61. Indicate which other businesses you have started as a result of savings from commercial motorcycle riding.

Business type	Size of business	Year started	Annual monetary return (Naira)
Farming (hectares)			
Keeping goats (number)			
Poultry farming (number)			
Sales trading (volume of ware in Naira)			

62. Support services from formal institutions in the last three years

Institution	Support in Naira
Micro finance bank (name the bank)	
Commercial bank	
Federal Government poverty programmes	
TraderMoney	
FarmerMoney	
Bank of Industry	
Others (list)	
Local government	
Covid-19 support	

63. Other forms of business entitlements

Support source	Amount in Naira
Ward councillor	
House of Assembly member	
House of rep member	
Senator	
Any other politician	

64. Support from non-state actors

Support source	Amount in Naira
Nongovernmental organisations	
Community based organisations	
Faith-based organisations	
Individual grants and trusts	
UN Agencies (give name)	

Freely express yourself on the commercial motorcycle

business……

……

……

…….

Physical observation will be carried out on the following:

GPS Coordinates.....

Routes with the highest traffic volume……

Adherence to traffic regulations……

THANK YOU FOR YOUR RESPONSES