

# Ownership of Commercial Motorcycle Mode of Transportation to Socioeconomic Development of Yakurr Local Government Area, Cross River State, Nigeria

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## ABSTRACT

The study assessed the ownership of commercial motorcycle mode of transportation to socioeconomic development of Yakurr Local Government Area (LGA), Cross River State. The study collected data through interview and administration of questionnaires. A total of 200 commercial motorcycle owners (respondents) were sampled during the survey. However, 192 copies were retrieved and used for analysis. One hypothesis was formulated and tested using the Pearson Product Moment Correlation Coefficient. Though a relationship exists as a means of earning livelihood by the motorcycle operators, statistically the result did not establish any significant relationship between the two variables; the level of commercial motorcycle ownership/operation and income generation in Yakurr LGA. The study also observed that the operation of commercial motorcycles has apart from easing movement, contributed to the development and growth of trading and agricultural activities in the LGA. However, it was recommended that the government should empower the youths in the LGA through the purchase of motorcycles and or granting them credit facilities to enable them purchase their own motorcycles. This will go a long way in improving their income, vis a vis that of the Local Government Area.

**Keywords:** Motorcycle Ownership, Commercial Motorcycle, Motorcycle Operators, Public Transportation, Level of Service and Mobility

## I. INTRODUCTION

Transportation is the movement of people from one place to another. It is the means through which commuters, goods and services travel from one point (origin) to another (destination). Transportation is basically accomplished through

different means and modes. Furthermore, each of the transportation means has its mode through which movement is facilitated. The modes through which air transportation is facilitated include airplanes, helicopters and jets. Water transportation modes include canoes, boats and ships. Land transportation is facilitated through cars, lorries, buses, motorcycles, tricycles, bicycles, use of animals (camels, donkeys and horses), and animal drawn carts as well as trekking (Yaro, Okon and Bisong, 2014; Ayodele and Babatunde, 2015).

Among the various transportation means seen above, the commonest used means is land transportation. Therefore, different modes abound in the movement of people, services and goods on land in both urban and rural areas. In developing countries specifically, motorcycles are widely used for movement. For instance, available literature have pointed out clearly that motorcycles are increasingly used in Kenya, Indonesia, Thailand, Malaysia, Ghana and Nigeria (Dinye, 2013; Nyachieo, 2012; Oyedepo and Etu, 2015). For instance, Dinye (2013) observed that motorcycles play a significant role in boosting socioeconomic activities in Ghana. He pointed out that motorcycle ownership and operation serve as a means of employment to youths that are mostly operators and the owners of the motorcycles. Similar observations were made by Karema (2015) and Edna (2018) in Kenya and Olubomehin (2012); Ukwaiyi, Agba and Michael (2013) and Odughesan (2016) in Nigeria.

From the foregoing, it may be deduced that motorcycle ownership and operation has contributed significantly to the socioeconomic development through the employment of motor operators, popularly called cyclists. Among increasing reasons for the patronage of cyclists include the ability to overcome traffic jam and loss

of economic hours (Olubomehin, 2012). As well, the collapse of public intra-city transportation systems in Nigeria has largely encouraged the growing use of commercial motorcycles (Kolawole and Afolabi, 2017)

In Cross River State, motorcycles are used as one of the major modes of movement. Except for Calabar which serves as the capital of Cross River State, commercial motorcycles serve as the only mode for intra-city movements and travel within the Local Government Areas (LGAs). Yakurr LGA is one of the LGAs in the state where movement within and around the LGA is basically dependent on motorcycle operation. The dependency of the people on motorcycle for movement has triggered increase in its use and operation for commercial purposes. In spite of the increasing use of motorcycles for commercial purposes in the study area, studies are inadequate regarding the level at which socioeconomic development has been achieved in the area through the use of these motorcycles. Also, there is limited knowledge on the level of service offered by commercial motorcycle owners and operators in the area. The paucity of literature has made it difficult to quantify the gains of commercial motorcycle ownership and operation in the study area. From this observation, it is clear that there is a gap in knowledge that needs to be bridged in order to come up with policy statements that will promote commercial motorcycle ownership and operation in Yakurr LGA. Based on this premise, the study focused on assessing ownership of commercial motorcycle mode of transportation to the socioeconomic development of Yakurr LGA, Cross River State.

## II. LITERATURE REVIEW

### Socioeconomic Characteristics of Commercial Motorcycle Operators

Commercial motorcycles have long emerged as a transportation mode that is used for moving people from place to place. Commercial motorcycle operation has the advantage of overcoming traffic jam, delays at intersections and its ability to meander into minor and less accessible roads. Also, the collapse of public transport systems have heightened dependence on the use of commercial motorcycle operation in developing countries like Nigeria. Historically in Nigeria, the practice of using motorcycles for conveyance of commuters on commercial basis started in Calabar, Cross River State in the 1970s (Olubomehin, 2012). Its usage for commercial purpose increased in Nigeria between 1975 and 1976 after the nationwide retrenchment of civil servants. Since its

use became pertinent, it has been the preferred mode for intra-city movement by operators and commuters, especially in the local government areas. The increase in the demand for the services has brought about accompanying increase in the number of motorcycle operators.

Ogunmodede, Gboyega, Ebijuwa, Oyetola and Akinola (2012) applied simple percentages in assessing the socio-economic characteristics of commercial motorcycle operators. They showed that 94.9 percent of the operators are males and they are predominantly between the ages of 26-30 years of age. They further remarked that majority of operators have secondary education as their highest educational level. In other words, very few motorcycle operators are trained above secondary school level. Ogunmodede et al., (2012) equally noted that 42.7 percent of commercial motorcycle operators are single and 46.2 percent are married.

In Gombe, Bello, Jikan-Jatum and Inuwa (2017) equally revealed that 100 percent of commercial motorcycle operators were males while majority (63.4 percent) are between the ages of 21-30 years. Their finding also revealed that Muslims were the predominant riders of motorcycles constituting 98.8 percent. Furthermore, 44.4 percent of motorcycle riders were educated to secondary school while few others had Qur'anic and primary education. Motorcycle riders take the duty of riding motorcycles as self-employment and mostly have between 1-3 dependents. However, 42.1 percent of motorcycle operators are the sole owners while others either rent them or are taken on hire purchase.

Onifade, Aduradola and Amao (2012) showed that residents of Ogun State that are engaged in the operation of commercial motorcycles are predominantly males; in fact they constitute 100 percent and are mostly between 31-40 years old. Their study observed that 68 percent of motorcycle operators are married while 51 percent are Muslims and 40 percent are Christians while 9 percent are pagans. Equally, most motorcycle operators (37 percent) have between 1-3 dependents while the level of education showed that majority of them (42 percent) had primary education. From the above submissions, it is clear that motorcycle operators possess certain qualities. However, available literature have not been able to attest the amount the operators make from the services they render to people. This study will provide such information.

### Activities that Promote the Use of Commercial Motorcycles

It has been revealed in recent studies that activities such as trading, agriculture, civil service, hospitality and tourism among others largely demand the services of commercial motorcycle operators. For instance, Okoko (2011); Hartoyo (2013); Yaro, Okon and Bisong (2014) pointed out that motorcycles are useful for the conveyance of farm produce from farm to homes and markets. Okoko (2011) revealed that the use of motorcycles coupled with roads have promoted agricultural production in Ghana while Hartoyo (2013) showed that in Indonesia, distances to farms and the stress on moving with loads have been overcome through the use of motorcycles and other modes of transportation due to the rehabilitation of roads. As a result, there have been promotion of agricultural activities in the above areas.

Yaro, Okon and Bisong (2014) listed motorcycles as one of the modes that residents of Boki in Cross River State use in transporting goods from farm to markets. They observed that motorcycles were largely used in the transportation of farm products to markets and homes. According to them, hiring the services of commercial motorcycle operators encourage farmers to increase their productivity as traveling time and distance were easily negotiated.

Olubumehin (2012) pointed out that with the traffic gridlock in Lagos, most civil servants and private sector employees prefer using motorcycles in order to avoid hold ups. Odugbesan (2016) affirmed that the use of commercial motorcycles help both business men and civil servants to avoid lateness to work and places of business. This is due to the ability of the motorcycle operators to avoid hold ups through using alternative small spaces and even venturing into using less accessible roads. Commercial motorcycles equally assist in the movement of goods from wholesale to retailers and other consumers thereby promoting trading activities.

In terms of tourism most tourists in rural areas demand services from motorcycle operators in order to gain access into the tourism sites. Karema (2015) observed that there are several advantages of using motorcycles rather than cars. For instance the cost of operating motorcycles is cheaper (both purchase and maintenance). Motorcycles are also easier to park and are more flexible in traffic and provide door-to-door services. All these make motorcycles the preferred choice of mode of transportation for tourists. Equally, motorcycles have the capacity of being manipulated along deplorable roads. Obviously, developing countries are mostly plagued with deplorable roads therefore, the increasing use of

motorcycles for public transportation has solved the problems of mobility needs of rural tourists to a large extent (Karewa, 2015)

### **Contributions of Commercial Motorcycles to Development**

Motorcycle operations bring in several opportunities. For instance, Karewa (2015) pointed out that motorcycles provide employment to motorcycle mechanics and motorcycle spare parts dealers, increase local revenue generating sources through taxes on motorcycle riders and motorcycle registration and licensing. It also provide a means of employment to motorcycle riders. Kolawole and Afolabi(2017) were of the view that commercial motorcycle operation contributes to employment generation through providing commercial motorcycle riders the opportunity to be engaged in the business of offering services to the public and inturn, earning income which they use in sustaining themselves and their families.

Motorcycle operators also venture into conveying goods from farms thereby promoting agricultural practices among rural residents. Particularly across accessible roads, farmers use motorcycles in transporting agricultural products that they harvest to their homes/markets. This drastically reduces the stress of travelling with agricultural goods on foot. Yaro et al., (2014) and Ikem (2019) pointed out that farmers that transport their products through motorcycles tend to venture into larger agricultural practices than those that transport their products on foot.

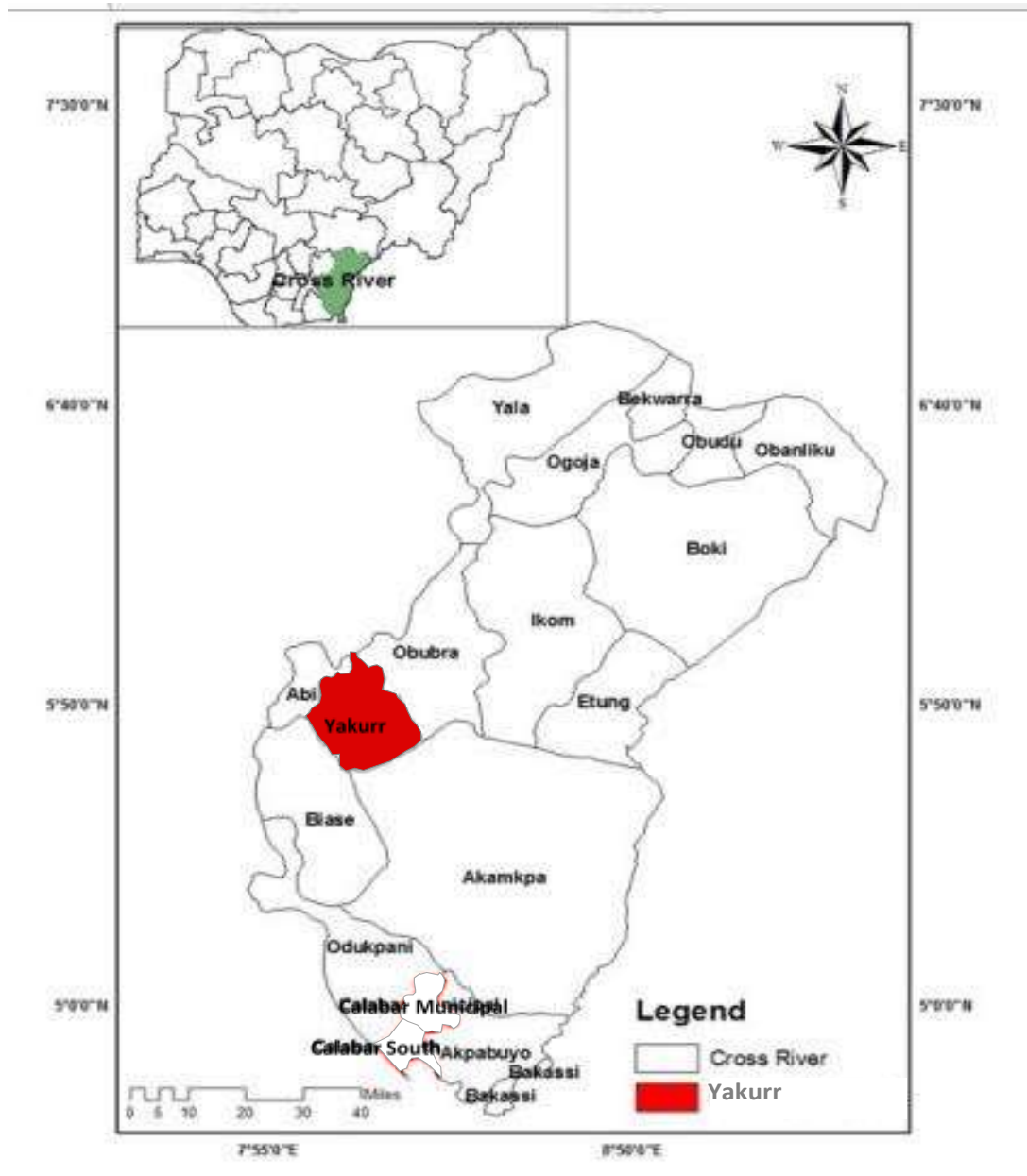
Motorcycle transport has also increased mobility among traders. Edna (2018) revealed that traders take advantage of motorcycles to transport their goods conveniently. Especially where there is increased traffic gridlock and where movements within the market is difficult, motorcycle riders usually find a way of traveling with the goods.

### **III. MATERIALS AND METHODS**

The study area is Yakurr LGA with headquarters in Ugep Town. It is located between latitudes  $5^{\circ}45'$  and  $5^{\circ}55'$  North of the equator and longitudes  $8^{\circ}11'$  and  $8^{\circ}20'$  East of the Greenwich meridian. It is situated within the equatorial forest region of the tropics. According to the 1991 National Population Census report, 28 smaller villages were identified Yakurr LGA. For ease of effective administration, these villages were merged into 9 autonomous communities. Presently, the study area is identified with 9 communities and 13 council wards (Oka, Peter and Alain, 2019). Yakurr LGA is bordered in the North by Obubra and Abi LGAs, in the South by Biase and

Akamkpa LGAs, in the East by Akamkpa and Obubra LGAs and in the West by Abi and Biase LGAs (see Figure 1). In 1991, according to the National Population Commission (NPC), Yakurr LGA had a total population of 134,773 persons. Projection of the 1991 population with an annual growth rate of 2.8 percent shows in 2019 a total 300,544 persons resides in the study area. The people of Yakurr LGA show a degree of

homogeneity, political and religious affinity. The temperature in the study area is relatively high. The rainfall is annually recorded between 2000mm and 3500mm. The residents of the study area are predominantly engaged in agricultural practices while others are involved in trading and public service activities. Commercial motorcycle is the predominant mode of intra-city transportation within the LGA.



**Figure 1: Cross River State Showing Yakurr. In Insert: Nigeria Showing Cross River State**  
 Source: Cross River Geographic Information Agency (2014)

The survey design was employed in this study. The instrument used for collection of data was questionnaire. The questionnaire was designed to elicit information on the socioeconomic characteristics of commercial motorcycle owners and operators, the activity that demands the use of their services among others. The questionnaires were distributed to both owners of motorcycles and operators. However, the 2019 population of Yakurr LGA was taken as the sample frame for the study. The study area was divided into nine (9) strata, using the 9 communities that make up the LGA. In each community, a representative fraction of motorcycle owners and operators were randomly selected and administered with questionnaires. To achieve this a percentage of 0.05 was taken from the entire population in each community. However, in order to increase the minimum sample size, the quasi-proportional sampling was introduced. With this, communities that had less than 15 respondents from the proportional distribution were increased purposively to 15. To this end, 192 motorcycle owners and operators were sampled and administered with questionnaires. Table 1 shows

how the questionnaire were distributed and the level of response from each community. However, all 192 copies were retrieved and used for analysis. Data obtained from field were presented descriptively in tables and inferentially with correlation analysis. The study hypothesis was tested with the use of Pearson Product Moment Correlation Coefficient (PPMCC) using Statistical Package for Social Sciences (SPSS). The PPMCC was chosen for the analysis because it is suitable for determining the strength of the variables. The formulae used for computing the result is mathematically showed as follows;

$$r = \frac{1}{n} \frac{\sum (x - \bar{x})(y - \bar{y})}{\sigma_x \sigma_y}$$

Where:

r = the correlation coefficient

x = Independent variable (motorcycle ownership)

y = Dependent variable (level of income generation)

$\sigma$  = standard deviation,

1 = unit constant

n = number of variables.

**Table 1: Administration of Questionnaires**

Communities	Projected Population	Number of Questionnaires Distributed	Number of Questionnaires Retrieved
Ugep	123,481	62	62
Idomi	13,667	15	15
Ekori	45,448	23	23
Nko	28,103	15	15
Mkpani	32,181	16	16
Assiga	15,720	15	15
Inyima	6530	15	15
Agoi	32,027	16	16
Ekpeti	1669	15	15
<b>Total</b>		<b>192</b>	<b>192</b>

Source: Field Survey, 2020

#### IV. FINDINGS AND DISCUSSIONS

##### Socio-economic Characteristics of Commercial Motorcycle Operators

Table 2 indicated that all commercial motorcycle operators in the study area (100 percent) were males. This implied that females do not take commercial motorcycle operation as a means of earning livelihoods. This is because commercial motorcycle operation is regarded as a masculine job. The table further explained that 21.9 percent of motorcycle owners were between 18-29 years while 56.2 percent were between 28-37 years. It was further remarked that 15.1 percent of commercial motorcycle operators were between

38-47 years and 6.6 percent were from 48 years and above. The findings show that most of the respondents that venture into commercial motorcycle operation are between the ages of 28-37 years. It may therefore be deduced that majority of motorcycle operators are the youths.

Furthermore, the marital status of the motorcycle riders depict that 35.9 percent were single while 62.5 percent were married. Also, 1.6 percent were separated (see table 2). Table 2 equally revealed that 28.1 percent riders had between 1-2 dependents and 54.2 percent had 3-4 dependents while 17.7 percent had 5-6 dependents. In terms of educational qualification, the findings

showed that 8.3 percent had no formal education while 25 percent had primary education as their highest educational attainment. It was also noted that 60.4 percent had secondary education while 6.3 percent had post-secondary education. The deduction in this regard is that there is literacy level among riders of motorcycle in the study area.

Majority of the riders (63 percent) take commercial motorcycle as a full time job while 37 percent engage in motorcycle operation on part time basis (see table 2). As well, 66.7 percent have been in the business of offering services with their

motorcycles between 1-3 years while 33.3 percent have been in the business for a period of 4-6 years. Finally, ownership status of motorcycle operators show that 38 percent acquired their motorcycles through hire purchase while 46.4 percent are the sole owners of the motorcycles they operate and 15.6 percent of the motorcycles are on rental basis (see table 2). From the table, it is clear that the socioeconomic characteristics of motorcycle operators showed differences among the operators of motorcycles in Yakurr LGA.

**Table 2: Socio-economic Characteristics of Respondents**

Characteristics	Categories	Frequency	Percentage
Gender	Male	192	100
	Female	-	-
	<b>Total</b>	<b>192</b>	<b>100</b>
Age	18-27	42	21.9
	28-37	108	56.2
	38-47	29	15.1
	48>	13	6.8
	<b>Total</b>	<b>192</b>	<b>100</b>
Marital Status	Single	69	35.9
	Married	120	62.5
	Separated	3	1.6
	Widowed	-	-
	<b>Total</b>	<b>192</b>	<b>100</b>
Number of Dependents	1-2	54	28.1
	3-4	104	54.2
	5-7	34	17.7
	8>	-	-
	<b>Total</b>	<b>192</b>	<b>100</b>
Educational Level	No Formal Education	16	8.3
	Primary	48	25.0
	Secondary	116	60.4
	Post-secondary	12	6.3
	<b>Total</b>	<b>192</b>	<b>100</b>
Time of Occupation	Full time	121	63.0
	Part time	71	37.0
	<b>Total</b>	<b>192</b>	<b>100</b>
Years of Experience	1-3	128	66.7
	4-6	64	33.3
	7-9	-	-
	9>	-	-
	<b>Total</b>	<b>192</b>	<b>100</b>
Access to Motorcycle	Hired	73	38.0
	Purchase	89	46.4
	Self	30	15.6
	Rental	-	-
	Others	-	-
	<b>Total</b>	<b>192</b>	<b>100</b>

Source: Field Survey, 2020

### Activities that Demand the Services of Commercial Motorcycle Operators

Table 3 shows that 12 percent of the motorcycle operators basically use their bikes for transporting agricultural goods from farms to home/markets. Also, 70.3 percent use their motorcycles for the movement of people within the LGA while 6.2percent use their motorcycles to fetch water and sell to residents within the LGA. However, 11.5 percent use their motorcycles to carry commercial goods and parcels from markets, warehouses etc.

The finding indicates that motorcycle operation on commercial basis contribute enormously to the growth of other sectors. For instance, riders use their motorcycles in transporting agricultural products, saving farmers the energy required to transport agricultural products on foot. In turn, the farmers re-invest the energy in cultivating larger farmlands and as such, ensuring food availability and security. Also, those that use their motorcycles to move people contribute towards reducing travel distances and cost. Clearly, the only means of public

transportation in the study area is commercial motorcycle, this imply that without commercial motorcycle operation, residents that do not own private cars will not be able to travel to other parts of the LGA.

Commercial motorcycle owners in the study area further played a definitive role towards ensuring water supply through meeting the demands of residents by vendor services. This category of motorcycle operators travel several kilometres to get water in different plastic containers that they in turn sell to those that demand water for domestic consumption among other uses. Equally, other riders engage actively in transporting goods from markets, wholesalers, retailers and so on. Obviously, the aftermath effect of moving the goods unravel several positive effects on the socio-economic status of both the traders and those that buy thereafter. Holistically, motorcycle operation for commercial purposescontribute enormously to socio-economic development through fostering and promoting the movement of goods.

**Table 3: Activities that Demand the Services of Commercial Motorcycle Operators**

Activity	Frequency	Percentage
Agricultural Activities	23	12.0
Movement of People	135	70.3
Water Supply	12	6.2
Movement of Commercial Goods	22	11.5
<b>Total</b>	<b>192</b>	<b>100</b>

Source: Field Survey, 2020

### Daily Income Generated from Motorcycle Operation

Table 4 shows that motorcycle owners are generating income from the services they render on daily basis. Notably, 12 percent riders generate below ₦1000 daily while 23.4 percent generate ₦1000-₦2000 daily. The information in the table further revealed that 51.6 percent generate between ₦3001- ₦4000 on daily basis and 13 percent motorcycle riders generate <₦4000 on

daily basis. The income generated is further used by the motorcycle riders to take care of their families and meet up their needs. This therefore attest to the fact that motorcycle operation serve as a means of employment to riders in the study area. Also, the ability of the operators to generate income deprive them from embarking on anti-social activities like robbery, and other social ills capable of disrupting peace in the study area.

**Table 4: Daily Income Generated from Motorcycle Operation**

Income (₦)	Frequency	Percentage
<1000	23	12.0
1000 – 2000	45	23.4
2001 – 3000	99	51.6
3001 – 4000	25	13.0
4000 >	-	-
<b>Total</b>	<b>192</b>	<b>100</b>

Source: Field Survey, 2020

### The Level of Motorcycle Operation

Table 5 shows that 47.4 percent operate motorcycles at a very high level while 34.4 percent

operate motorcycles at a high level. Also, 12 percent operate motorcycles at the low level and 6.2 percent operate motorcycles at very low level.

**Table 5: The Level of Motorcycle Operation**

Number	Frequency	Percentage
Very High	91	47.4
High	66	34.4
Low	23	12.0
Very Low	12	6.2
<b>Total</b>	<b>192</b>	<b>100</b>

Source: Field Survey, 2020

### Test of Hypothesis

The hypothesis formulated in this study was tested using Pearson Product Moment Correlation Analysis. The hypothesis states that ‘the level of commercial motorcycle operation is not significantly related to the income generated in Yakurr LGA’. In order to test the hypothesis,

data were extracted from table 3 and table 4. Table 4 was used as the independent variable (x) while table 3 was used as the dependent variable. Furthermore, the Statistical Package for Social Sciences (SPSS) was applied in testing the hypothesis.

**Table 6: Test of Hypothesis**

	X	Y
X	Pearson Correlation	.000
	Sig. (2-tailed)	1.000
	N	8
Y	Pearson Correlation	.000
	Sig. (2-tailed)	1.000
	N	8

Source: Statistical Computation, 2020

The result of the test from the hypothesis shows that the level of motorcycle ownership is not significantly related to the level of income generation in Yakurr LGA. As seen in table 5. The calculated significant value of 1.00 was greater than 0.05. Based on this, the null hypothesis was accepted and the alternative hypothesis was rejected.

encourage more youths to operate in the L.G.A.

- iv. Finally, as an alternative to item number one above, the government through the local government authority can arrange for soft loans with any of the available banks to willing motorcycle operators to boost their purchasing powers.

### V. RECOMMENDATIONS

Due to the findings of the study, the following recommendations were made;

- i. The government should promote youth’s empowerment in the study area through the provision of more motorcycles.
- ii. As seen in the finding, the movement of people within the LGA is the activity that mostly promote the use of motorcycles hence, the roads within the LGA should be rehabilitated and maintained regularly.
- iii. Also, since motorcycle operation is a means of generating income, measures relating to taxes and registration should be regulated so as to

### VI. CONCLUSION

The study focused on assessing the ownership of commercial motorcycle mode of transportation to socio-economic development in Yakurr LGA. The study noted that motorcycle ownership/operation has played important role in providing the youths of Yakurr LGA with means of earning livelihoods. For instance, the study noted that motorcycle operators generate varied amounts of income on daily basis. The amount generated is used for their sustenance and their families. That is, it is a means of creating employment to the youths in particular.



The study equally showed that motorcycle operation among the residents of Yakurr contributes in promoting agricultural activities, trading and other activities. However, the availability of commercial motorcycle services in the study area has positively impacted farming activities thereby promoting food production and availability. This is because commercial motorcycle operators render services of conveying farm products from farms to homes and or markets.

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