



AN APPRAISAL OF SOCIO-ECONOMIC IMPACTS OF COMMERCIAL MOTORCYCLES IN GOMBE STATE, NIGERIA



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ABSTRACT

Article History

Received: 27 January 2017

Revised: 2 May 2017

Accepted: 30 May 2017

Published: 19 June 2017

Keywords

Motorcycle
Commercial
Transport
Socio-economic
Gombe
Nigeria.

This study examines the socio-economic impacts of commercial motorcycles in Gombe State, Nigeria. The study was carried out in Gombe Metropolis with using a simple random sampling technique to select 500 motorcyclists sample size. The data generated were analyzed using simple percentages and Chi-square test. The study finds that commercial motorcycle business is a youth dominated business, majority of who are in the age bracket of 21-30 years and mostly rely on it to sustain their families. The results also reveal that commercial motorcycle business betters the livelihood of the respondents. Similarly, the results indicate that the respondents make enough money to sustain their families. The study recommends that ministry of youth should partner with their unions and other relevant agencies to provide motorcycles on hire purchase basis so that they can own their motorcycles. This is because most of them (74%) rely on the business to sustain their families. Also, the study finds that most of the respondents learnt to ride motorcycles in an informal way, the study therefore recommends that all motorcyclists must pass through riding school and obtain valid riding/driving license. This can be achieved through decentralizing driving and testing centers across the state.

Contribution/ Originality: This study is one of very few studies which have investigated the socio-economic impacts of commercial motorcycles in Gombe metropolis, Gombe State, Nigeria. In addition, the study finds that most of the respondents learnt through an informal way which compelled the authors to suggest that that all motorcyclists must pass through riding school and obtain valid riding/driving license.

1. INTRODUCTION

Interestingly, most developing countries acknowledge motorcycles as one of the means of transportation. In the last five years, the numbers of motorcycles per capita in Gombe State has doubled because most of the neighboring states banned the use of commercial motorcycles. Although the perceived lucrative nature of the motorcycle business might not be singled out as the reason why people venture into such business, inadequate public transport system and high rate of unemployment also lead to the emergence of motorcycles as a means of public transportation in the state and country at large.

It is worth noting here that commercial motorcycles (popularly called “*Achaba*”) is patronized by all and sundry in the society irrespective of the socio-economic status of the individuals especially those who are eager to get to their destination or workplace with minimal delay and waste of time. Moreover, its availability, relative cost and most especially its accessibility and capacity to maneuver bad roads, traffic congestions or hold-ups and gets to its destination on time make it an easy alternative for use by members of the public above other means of intra-city public transportation (Michael *et al.*, 2013).

Despite offering certain transport advantages in its availability, relative cost and most especially its accessibility and capacity to maneuver bad roads, traffic congestions or hold-ups and gets to its destination on time, commercial motorcycle service growth has also led to an increase in road accidents especially in wet and slippery conditions, traffic management problems, pervasive noise and increases in local air pollution and greenhouse gas emissions (Kumar, 2011). Researches like (Oluranti, 2011; Taruwere, 2012; Dinye, 2013; Olabode *et al.*, 2013; Tuan and Meteo-Babino, 2013) have been conducted on the issues of motorcycle traffic accidents, determinants of earnings, motorcycle traffic management in motorcycle dependent cities, commercial motorcycle operations among others. However, to the best of the researchers’ knowledge, none of these studies was conducted in Gombe State. Therefore, the main objective of this study is to create an in-depth understanding on the characteristics of commercial motorcycles, its wider socioeconomic impact, and identify its possible roles in the future urban transport system in Gombe State. The rest of the paper is structured into four sections. The second section presents literature review, while section three focuses on the methodology of the study. The fourth section shows the empirical results. Based on the results, the fifth section discusses the conclusion and recommendations.

2. LITERATURE REVIEW

In virtually all the urban areas of developing countries, there has been a rapid increase in the use of commercial motorcycle as a means of transportation for both human beings and goods. The resplendent problem of urban growth of having gridlock jams have necessitated the quick solution of using motorcycles as an alternative means of transport as a solution to quick mobility (Charles, 2011). Several studies have been carried out on the use of motorcycles as a means of intra-city transportation. For example, Oluranti (2011) applies descriptive analysis and Ordinary Least Square (OLS) method to examine the roles of commercial motorcycles towards generating self-employment and income for Lagos and Ogun states, Nigeria. The author applied multi-stage random sampling to administer 777 copies of questionnaire for 55 garages in Lagos and 45 garages in Ogun states respectively. The results show that commercial motorcycle is one of the major employers of young school leavers in both the study areas. The findings also reveal that more than 80% of the operators earn above minimum wages.

Furthermore, Taruwere (2012) applied modified mincerian model to examine the determinants of earnings among commercial motorcyclists across the rural-urban divide in Kwara State, Nigeria. Using simple random sampling, the author administered 80 copies of questionnaire and found that significant variables like age of Okada riders, location and license have positively determined earnings. The results also show that Okada riders earn a minimum of ₦500 and maximum of ₦2,800 per day. Finally, the results reveal that educational background of the riders does not in any way determine earnings. Another recent study by Umaru (2013) applies descriptive statistic in the form of bar charts and simple percentages to examine the effects of commercial motorcyclists in Nasarawa state for the local economy, community and environment. Using stratified random sampling technique; the author administered 1,600 copies of questionnaire and found that commercial motorcyclists have modest contribution to the state’s economy. The findings also showed that commercial motorcycles contributed to the environmental degradation in the state. Finally, the results revealed that motorcycles are becoming major source of road traffic morbidity and mortality. Thus, the study calls for effective regulation of the commercial motorcycle business in the state.

Dinye (2013) applied descriptive statistic in the form of pie-charts and simple percentages to examine the effects of motorcycle growth in the social and economic development of Wa, regional capital of upper West Region of Ghana. Using purposive sampling, the study administered 253 copies of questionnaire for both the owners and riders. The results reveal that motorcycles have created ripples of job opportunity for the jobless and also rekindled the local economy. However, findings from the study reveal a consistent and persistent harassment by the police. In addition, Tuan and Meteo-Babino (2013) applied descriptive statistic in the form of mean, standard deviation, pie-charts, histogram and simple percentages to examine the impact and possible roles of commercial motorcycle for Hochiminh city, Vietnam. The authors administered 520 copies of questionnaire structured into users (400), operators (100), and stakeholders (20). The authors suggest necessary changes in the survival business model and regulatory measures so as to improve the quality of the service.

Adenike *et al.* (2012) applied a simple percentages and t-test statistical tools to examine the effects of socioeconomic survival of Okada riders in Abeokuta and Odeda local government areas of Ogun state, Nigeria. The authors used questionnaire to elicit information from 100 respondents who were randomly selected from 10 Okada parks within Abeokuta and Odeda Township respectively. The results reveal that majority of the riders engaged in the business because of the pressing need to survive and sustain their families. The results also show that recklessness associated with the business tends to erode certain cultural and moral values.

Olabode *et al.* (2013) applied a simple percentages to examine the socioeconomic challenges of road accidents among motorcyclists in Ile-Ife, Osun State, Nigeria. The authors used simple random sampling technique to select 1,000 motorcyclists as the sample size and found that all the respondents have heard about road traffic accidents via motorcycles. Similarly, more than 70% of the respondents have at one time or the other involved in road traffic accidents. Finally, the results evidenced that 95% of the respondents are willing to attend seminars on how to prevent road accidents. Similarly, Aderamo and Olatujoye (2013) applied Ordinary Least Squares (OLS) model in the form of multiple regression analysis to examine the trends of motorcycle accidents in Lokoja, Kogi State, Nigeria for the period 2000-2009. The results reveal that significant relationship exists between the number of accidents, number of injuries, number of deaths and the increasing number of registered motorcycles in the city. Thus the study recommends that public enlightenment should be organized and use of protective head helmets should be enforced in order to reduce rate of motorcycle accidents in the city.

Ikot *et al.* (2011) examined the implications of banning commercial motorcycles in Uyo metropolis of Akwa Ibom State, Nigeria. The authors applied stratified random sampling to select 100 respondents. The results revealed that despite the efforts made by the government in solving the problems of intra-city transportation within Uyo municipality, the spate of insecurity and crime in the state may not be unconnected with the recent ban of commercial motorcyclists. Therefore, the study recommended among others that government should create more job opportunities as well as skill acquisition centers so as to be able to carter for themselves and their families. Moreover, Michael *et al.* (2013) applied simple percentages and chi-square to examine the implications associated with the abolition of commercial motorcyclists as a means of transportation and its effect on criminality in Calabar, Cross Rivers, Nigeria for the randomly selected 984 respondents. The findings revealed that factors such as upsurge in criminal activities rise in traffic accidents, traffic congestion and recklessness on the part of riders among others account for the abolition of commercial motorcycles business as a means of transportation in Calabar metropolis. The results also showed an increase in criminal activities such as armed robbers, pick-pocketing and snatching of valuables as a result of abolition of commercial riders.

3. METHODOLOGY

3.1. Study Area

Gombe State has, for long, been the commercial nerve centre of the entire Northeast sub region. It earns this reputation not only because it is centrally located in the region but because of the highly enterprising nature of its

people. Commercial activities ranging from the household retail trade to the large wholesale distributive trade on various commodities are carried out. Major articles of trade in the state include both agricultural and manufactured goods.

Indeed, commerce is the second highest employer of labour (after agriculture) in the state. Gombe State has dedicated loyal and hard working civil servants and well developed social and infrastructural facilities. In addition, she has egalitarian, enterprising, hardworking, and very loyal and peace loving people. Hence, the State is named the "Jewel in the Savannah." Many people in the state are also engaged in the service industries, especially in the informal sector of the economy. Fashion designing and tailoring, hair dressing, catering, motorcycle transportation, entertainment, hotel off license licence, building/construction and roadside motor vehicles repairs, are among the numerous small-scale business activities in the state. Indeed, today Gombe State has at least one distributor/dealer for all the known manufacturing industries in the country (OnlineNigeria, 2014).

3.2. Sampling Size and Sampling Technique

Commercial motorcyclists have been interviewed as the basic unit of observation. Stationed or parked motorcycles have been selected because it is convenient for both the researchers and the respondents for the interviews engagement. A total of five (500) hundreds motorcyclists have been selected using stratified random sampling technique following the work of Umaru (2013). The reason for choosing this sample size is justified because as at the time of commencement of this research, the government of Gombe State is registering all commercial motorcycles in Gombe metropolis, therefore having their total population is impossible. This is not farfetched because it is not all the motorcyclists that registered with their union or registered at all. The study area has been divided into three (3) strata, each of the stratum consists of three wards (location 1; Gabukka, Pantami, and Bolari, location 2; Kumbia-Kumbia, Jekadafri, and Herwagana, and location 3; Dawaki, Shamaki, and Ajiya). Gombe Local Government Area (Gombe metropolis) has been purposively selected for this study because it is the main city of the community where this business really flourishes. The structured questionnaire method has been adopted to elicit information from the respondents.

3.3. Method of Data Collection

The data were sourced through primary source from the commercial motorcyclists based on the sampling technique explained above. The researchers distributed copies of questionnaire to the respondents, waited and collected the instruments from the respondents. The uneducated respondents have been assisted by explaining sections of the questionnaire to them.

3.4. Method of Data Analysis

Data generated from the survey have been analyzed using both descriptive (in the form of percentages) and inferential statistics (Chi-Square test) with the aid of Statistical Software for Social Sciences (SPSS). The formula for Chi-Square is expressed as:

$$\chi^2 = \sum \frac{(f_o - f_e)^2}{f_e} \text{----- (1)}$$

Where;
 \sum =summation

f_o = Observed frequency

f_e = Expected frequency

In addition, there is need to calculate the degree of freedom which is given as;

$$DF=(R-1)(C-1)$$

DF=Degree of Freedom

R=Row

C=column

3.5. Decision Rule

If the calculate value of χ^2 is greater than the tabulated value at a given level of significant degree of freedom, the null hypothesis will be rejected in favour of the alternative hypothesis and vice versa.

4. EMPIRICAL RESULTS

This section presents the empirical results of the analysis. The rest of the section is structured into five (5) sections excluding this brief introduction. Section two presents the demographic characteristics of the respondents, while section three focuses on the socioeconomic effects of the commercial motorcycle. Section four present motorcycle accident and its causes and then followed by health status of the motorcyclists in section five. Finally, results of Chi-Square are presented in section six.

Table 1 presents the results of demographic characteristic of the respondents. The results revealed that all the respondents are male. This implies that commercial motorcycle is a male-dominated business. Furthermore, the study found that commercial motorcycle business is dominated by youths because out of five-hundred (500) respondents, 317 representing 63.4% of the respondents are within the age 21-30 years. While, only 45 and 22 representing 9.0% and 4.4% of the respondents aged less than 20 and more than 50 years, respectively.

In terms of religion, 494 out of 500 respondents are Muslims, while only 5 representing 1% of the respondents are Christian. With regards to educational background of the respondents, 32.6% of the respondents have Qur'anic education, 14.0% have primary education, 44.4% secondary education, 7.4% have NCE/Polytechnic education, 1.4% of the respondents have attained the level of university and only 0.4% among the respondents have not attained any form educational height. Moreover, more than 80% of the respondents are self-employed. This implies that most of the respondents relied on commercial motorcycle business as their means of livelihood.

As for dependents, 38.4% have 1-3 dependents, 22.2% have 4-5 dependents, 14.4% have 5-7 dependents, 19.2% have 8 and above and only 5.8% respondents have no dependents. Furthermore, 46.2% of the respondents owned motorcycles, 41.0% are on work on shift (rental), while only 12.8% of the respondents are on hire purchase. In terms of training of motorcycle riding, only 6.0% received their training at riding school, while 94.0% learnt riding motorcycle in an informal way. This implies that majority of the commercial motorcyclists in Gombe metropolis learnt riding in an informal way. Moreover, the period taken in learning to ride motorcycle both in riding school and in an informal way varies with 150 out of the 500 respondents representing 30% took less than a week, 145 representing 29.0% took more than a week, 97 representing 19.4% took less than a month and 108 representing 21.6% took more than a month.

Table 2 presents the results of socio-economic effects of commercial motorcycle in Gombe metropolis. The results revealed that 74% of the respondents agreed that they belong to an association as a result of their business, 83.6% of the respondents agreed that trade betters their livelihood, 48.6% affirm that they are members of savings and credit association; while 74.0% confirm that they make enough money from the business to sustain their families. Out of the 248 of the respondents that belong to savings and credit association, only 97 representing 39.1% contribute above a ₦1,000 monthly. However, more than 50% of them contribute to make them have financial discipline. Thus, the implication of this finding is that commercial motorcycle is an organized business venture and that majority of the respondents are in the business for socio-economic survival.

Table-1. Demographic Characteristic of the Respondents

Personal Characteristics of the Respondents	Frequency	Percentage
Gender:		
Male	500	100.0
Female	0	0.0
Total	500	100.0
Age:		
10-20	45	9.0
21-30	317	63.4
31-40	111	22.2
51 and above	22	4.4
No response	5	1.0
Total	500	100.0
Religion:		
Muslim	494	98.8
Christian	5	1.0
Others	1	0.2
Total	500	100.0
Education:		
Qur'anic	163	32.6
Primary	70	14.0
Secondary	222	44.4
NCE/Polytechnic	37	7.4
University	6	1.2
Never been to school	2	0.4
Total	500	100.0
Employment Status:		
Employed	40	8.0
Unemployed	21	4.2
Self-employed	408	81.6
Pensioner	2	0.4
Student	24	4.8
Applicant	5	1.0
Total	500	100.0
Number of Dependents:		
1-3	192	38.4
4-5	111	22.2
5-7	72	14.4
8 and above	96	19.2
No Dependents	29	5.8
Total	500	100.0
Ownership Structure:		
Sole	231	46.2
Rental	205	41.0
Hire Purchase	64	12.8
Total	500	100.0
Training of Motorcycle Riding:		
At a riding School	30	6.0
In an Informal way	470	94.0
Total	500	100.0
Period of the Training:		
Less than a Week	150	30.0
More than a Week	145	29.0
Less than a Month	97	19.4
More than a Month	108	21.6
Total	500	100.0

Source: Field Work, 2016.

Table-2. Socio-economic Effects of Commercial Motorcycle in Gombe State

Questions	Frequency	Percentage
a) Membership of any association as a result of your profession		
Yes	374	74.8
No	126	25.2
Total	500	100.0
b) Betterment of livelihood		
Yes	418	83.6
No	82	16.4
Total	500	100.0
c) Membership of any savings and credit association		
Yes	243	48.6
No	257	51.4
Total	500	100.0
d) Making enough money to sustain your family		
Yes	370	74.0
No	130	26.0
Total	500	100.0
If yes to (c) above, contribution per month		
100-200	35	14.1
201-300	15	6.0
301-500	41	16.5
500-1000	60	24.2
1000 and above	97	39.1
Total	248	100.0
Benefits derived from the contribution		
Taking loans	69	27.8
Low affordable interest rates	32	12.9
Make members have financial discipline	147	59.3
Total	248	100.0

Source: Field Work, 2016.

Table-3. Chi-Square Analysis

Does Motorcycle business better your livelihood?		
Responses	Observed Frequency	Expected Frequency
Yes	418	250
No	82	250
Total	500	500
Test Statistics		Value
Chi-Square		225.792
Degree of Freedom		1
Asymp. Significant		0.000
Do you make enough money to sustain your family?		
Responses	Observed Frequency	Expected Frequency
Yes	370	250
No	130	250
Total	500	500
Test Statistics		Value
Chi-Square		115.200
Degree of Freedom		1
Asymp. Significant		0.000

Source: Authors' computation using SPSS version 19.00

Table 3 shows the results of Chi-Square analysis. Based on the test statistics and asymptotic significance, the results reveal that commercial motorcycle business betters the livelihood of the respondents. Similarly, the results indicate that the respondents make enough money to sustain their families.

4.1. Discussion of Results

Commercial motorcycling is one of the major means of public transportation in Nigeria at large and Gombe state in particular. The business is particularly gaining ground in the state because most of the states in the region have banned the use of commercial motorcycles because of the insurgents bedeviling the region. Therefore, findings from this study is consistent with that of Adenike *et al.* (2012) and Dinye (2013) whose found that motorcycle business help in betterment of livelihood as well sustaining of family.

5. CONCLUSION AND RECOMMENDATIONS

This study examines the socio-economic effects of commercial motorcycle business in Gombe metropolis, Gombe State, Nigeria. Data generated from survey were analyzed using simple percentages and Chi-Square test. The study finds that commercial motorcycle business is a youth dominated business majority of who are in the age bracket of 21-30 years and mostly rely on it to sustain their families. The results reveal that commercial motorcycle business betters the livelihood of the respondents. Similarly, the results indicate that the respondents make enough money to sustain their families. Since, commercial motorcyclists in Gombe metropolis is dominated by youths mostly in the age bracket of (21-30 years) and more than forty percent (40%) of the respondents operate on rental and only 12.8% enjoy hire purchase. The study recommends that ministry of youth should partner with their unions and other relevant agencies to provide motorcycles on hire purchase basis so that they can own their motorcycles. This is because most of them (74%) rely on the business to sustain their families. Also, the study finds that most of the respondents learnt to ride motorcycles in an informal way, the study therefore recommends that all motorcyclists must pass through riding school and obtain valid riding/driving license. This can be achieved through decentralizing driving and testing centers across the state.

Also, the study finds that most of the respondents learnt to ride motorcycles in an informal way, the study therefore recommends that all motorcyclists must pass through riding school and obtain valid riding/driving license. This can be achieved through decentralizing driving and testing centers across the state. Finally, it is found that commercial motorcyclists bettered the lives of the users in Gombe metropolis, the study therefore suggest that state and local governments should use motorcycles as poverty alleviation scheme by procuring and distributing them to the unemployed youth as part of their poverty eradication programmes. This model can be copied from others states such as the done in Oyo in 2007 and Borno in 2005.

Funding: This study received no specific financial support.

Competing Interests: The authors declare that they have no competing interests.

Contributors/Acknowledgement: All authors contributed equally to the conception and design of the study.

REFERENCES

- Adenike, O.C., A.R. Rebecca and A.S. Olalekan, 2012. The effect of socioeconomic survival of Okada Riders on African cultures. *Global Journal of Human Social Arts and Humanities*, 12(14): 45-52. [View at Google Scholar](#)
- Aderamo, A.J. and S. Olatujoye, 2013. Trends in motorcycles accidents in the Lokoja, Nigeria. *European International Journal of Science and Technology*, 2(6): 251-256. [View at Google Scholar](#)
- Charles, M., 2011. The effects of the motorcycle transport revolution on the economic growth of Kenya, a case study of Thika District. An Unpublished Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Business Administration (Corporate Management) of the School of Business KCA University.
- Dinye, R.D., 2013. The significance and issues of motorcycle transport in the urban areas in Northern Ghana. *Scientific Journal Review*, 2(10): 256-272. [View at Google Scholar](#)

- Ikot, A.S., U.U. Akpan, P.J. Benson and O.P. Etim, 2011. Motorcycle ban and its economic implications in Uyo metropolis of Akwa Ibom State, Nigeria. *International Journal of Economic Development Research and Investment*, 2(3): 32-39. [View at Google Scholar](#)
- Kumar, A., 2011. Understanding the emerging role of motorcycles in African cities: A political economy perspective. SSATP Discussion Paper Series No 13.
- Michael, C.E., A.S. Ojedokyu and E.C. Chinwokwu, 2013. Abolition of motorbikes and its implication on transportation and criminality in calabar metropolis. *International Journal of Social Sciences Studies*, 1(1): 206-214. [View at Google Scholar](#) | [View at Publisher](#)
- Olabode, K.T., K. Adeigbe, Z. Hilary, D.B. Adeoye, E. Owonibi, T.D. Adepoju and P. Akinlaja, 2013. The socioeconomic challenges of road accidents among motorcyclists in Ile-Ife, Osun State Nigeria. *International Journal of Humanities and Social Studies*, 1(2): 23-26. [View at Google Scholar](#)
- Oluranti, O.I., 2011. Informal self-employment and poverty alleviation: Empirical evidence from motorcycle taxi Riders in Nigeria. *International Journal of Economics and Finance*, 3(2): 176-185. [View at Google Scholar](#) | [View at Publisher](#)
- OnlineNigeria, 2014. Retrieved from <http://www.onlinenigeria.com/links/gombeadv.asp?blurb=265#ixzz1Es8Dal4b>.
- Taruwere, Y.A., 2012. Determinants of earnings among commercial motorcyclists in Kwara State, Nigeria. *International Journal of Economics and Management Sciences*, 2(2): 11-17.
- Tuan, V.A. and I.B. Meteo-Babino, 2013. Motor taxi service in Vietnam: Its socioeconomic impacts and policy considerations. *Proceedings of the Eastern Society for Transportation Studies*, 9.
- Umaru, I.G., 2013. Commercial motorcycle activity, value creation and the environment in the developing world: The case of Nasarawa State, Nigeria. *International Journal of Social Science Research*, 1(1): 122-139. [View at Google Scholar](#) | [View at Publisher](#)

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