

International Journal of Development and Sustainability ISSN: 2186-8662 – www.isdsnet.com/ijds Volume 6 Number 11 (2017): Pages 1689-1700 ISDS Article ID: IJDS17083103



# 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

# David Naya Zuure \*, Asiwome Yiboe

University of Education, Winneba, Ghana

#### Abstract

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. This new means of public transportation in the area has seen many of the youth engaged in it for livelihood. This study set to examine the 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. 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 socioeconomic 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.

Keywords: Commercial; Transport; Motorbike; Youth; Education; Rights

Published by ISDS LLC, Japan | Copyright © 2017 by the Author(s) | This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.



*Cite this article as:* Zuure, D.N. and Yiboe, A. (2017), "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", *International Journal of Development and Sustainability*, Vol. 6 No. 11, pp. 1689-1700.

<sup>\*</sup> Corresponding author. E-mail address: author@email.com

# **1. Introduction**

Every human society aspires for better things and this explains the constant renewal of its livelihood tools and methods. Cultural elements are borrowed from one culture to regenerate another. This consequently has an impact on the receptionist society. There is an emergence in Agbozume Traditional area in the Ketu South Municipality of the Volta Region a new form of public transport: the commercial motorbike popularly known as motor taxi. The use of motor taxi is not a new phenomenon on a global scale. It is used in China, India, Indonesia and Vietnam. In Latin America it appeared in the mid-1990s in Caracas-Peru and Sincelejo in Colombia. Its inception in Ghana is a relatively new phenomenon as seen in the cities of Accra and Tamale. It has become common in the Ketu South Municipality from the year 2000 partly because the municipality shares boarders with Lome-Togo where the practice has been in existence for a long period of time and also partly because the bike is cheaper on the Togolese market and are easily used to cross the borders into Ghana. Agbozume traditional area within the municipality has its fair share of this advantage. However, what is seen is that the male youth in engaging in the commercial motorcycling have abandoned their education. The commercial motorcycling popularly referred to in the area as 'zemidza' (a borrowed word from Togolese local parlance) has most of the boys seen on motor bike during school hours. The timeliness of this study was borne out of the fact that education of the youth and the future leaders is central in social transformation especially in the face of globalization and a clarion call on every country to educate its youth. It also due to the fact that, various human rights instruments including the United Nations Declaration on Human Rights (1948), the United Nations Convention on the Rights of the Child (1989), Republican Constitution of Ghana, 1992, and the Children Act of Ghana, 2008 clearly spell out education as a right and enjoins states to undertake to educate its citizens especially children. The study also aimed at contributing to the national contemplation and debate going on, on the issue of whether to legalize or ban the use of motorbike as a public means of transportation in the country.

# 2. Statement of the problem

Many of the male youth in the Agbozume traditional area of the Ketu South Municipality engage in commercial motorcycling at the expense of their education and even boys who can conveniently be described as children also do same. Is there any economic or any other compelling reasons serving as a pull factor to this phenomenon? What happens to the education of these youth and boys in the Community? Apart from the dangers that may be associated with this business of commercial motorcycling, the future of these youth and children appear bleak relative to their education just as we as a people, fancy statements like "education is the key" and " children are the future leaders of our nation".

# 3. Research question

This study was guided by the following questions:

1- Why do most of the male youth in Agbozume traditional area engage in commercial motorcycling?

- 2- What do the youth in Agbozume traditional area consider as benefits from commercial motorcycling?
- 3- What dangers does commercial motorcycling pose to both riders and passengers in this community?
- 4- To what extent has commercial motorcycling affected the education of the male youth and boys in the area?

#### 4. Review of literature

A motorcycle (also called a motor bike, bike, motor or cycle) is a two or three wheeled motor vehicle which is self-propelled and propulsion is provided by engine or motor usually by an internal combustion engine of an electric motor or a combination of both. Charles (2011) opines that there are two-wheeled motorcycles which can be used to carry people and goods on commercial basis. Beyond the two-wheeled motorcycles is the three-wheeled, also known as tricycle which is also used for transportation of people and goods on commercial basis (Gauthier and Hook, 2005). Tricycles have different names in different parts of Ghana. In Accra, they are called Lion motor, moto kia in Kumasi, Nyaaba lorry in Was and motor king in Tamale (Dinye, 2013).

Looking at the socio-economic benefits of commercial motorcycling, Oladipo (2012) said that, "Okada" impacted positively on society in many ways. One important positive impact is the provision of employment for thousands of unemployed people. He explains that, indeed, many unemployed youths and retired people have found gainful engagement in the commercial motorcycle business. Some of those who are employed in the government service still engage in this business either as owners or riders to augment their regular income with whatever they are able to make from commercial motorcycling. Commercial motorcycle operators have also contributed to government revenue generation. Government derives revenue from money paid for plate number and licenses as well as custom duty registration by motorcycle operators. This is in addition to the sale of motorcycles and motorbike spare parts on which taxes are paid to the government. Commercial motorcycles serve the purpose of complimenting the travel need of the communities suffering from insufficient public transport supplies. Likewise in the opinion of Porter (2013) the ability of motorcycles and it has been of immense benefit to the people living in these areas. Many young men and boys ride motorcycle taxis for employers usually on some form of hire basis and there is evidence to suggest that in some rural areas, this may be helping to keep young men in the village where otherwise they would drift into town in search of work.

According to WHO (2009), the small size nature of motorcycles makes its form of transportation dangerous hence, riders riders are a group of vulnerable users of roads. This is to say that the body of the motor rider is the first receiver of any form of hit that may result from the crash no matter how intense it is unlike in a car crash where the body of the car and the interior fittings server as cushion which may reduce intensity of hits. Afukaar, Antwi, and Ofosu-Amaah (2009) indicated that Northern Region alone accounts for 20% of motorcycle fatalities in Ghana followed by the Upper West Region with 14.7%. They opined that the growth of motorcycle transportation has led to lost of many lives through accidents. To simplify this, WHO (2004) explained that even in developed countries where morbidity and mortality rates from motorcycle accidents are low, the risk of dying from a motorcycle crash is twenty times higher than a motor vehicle crash. Odero,

Gardner & Zwi (2003), opine that the less sophisticated engine technology of motorcycle and the lack of strict emission regulations in many parts of the world have resulted in high emission of pollutants by motorcycles.

In many cities in developing countries, they are among the main sources of urban air pollution. The main pollutants in motorcycle exhaust fumes depending on several factors, such as the fuel used. These include particulate matter (MP), hydrocarbons (HC, volatile organic compounds (VOCs), nitrogen oxides (NOX) and lead (P6). In addition, emissions of carbon dioxide (CO2) are contributing to climate change. Together these pollutants seriously affect human health and the environment but not limited to the respiratory diseases, cardiovascular disease and climate change. In another development, Backers (2008), opines that the influx of Okadas has been linked to an increase in crime in cities throughout Nigeria, particularly in city centres, urban slums and red high district. The criminal activities range from theft of purges and mobile phones to abduction, ground larceny and even politically motivated murder. Further, Akinlade (2000), noted that road accidents which have increased in developing countries is a health problem. Ogagaghene (2011) agrees when speaking at the inauguration of members of association of motorcycle riders in Oyo State, Nigeria and attested to the fact that motorcycles riders are otherwise referred to as exposed road user. He went on further to state that riding motor bike without crash helmet accounts for 95% of permanent injury and death of Okada accident victims.

In summary, the literature review so far has successfully reviewed the views of various authors and scholars on education, youth, motorcycle taxis, and socio-economic impact of commercial motorcycling on the youth and the community in general as well as dangers associated with the phenomenon of commercial motorcycling. None of the studies examined focussed on the Agbozume traditional area and more so, none has attempted to find out specifically the impact of the commercial motorcycling on the education of the youth. This is the gap that this study intends to bridge.

#### 5. Research design

This study the case study research design located within the qualitative approach to research. A qualitative research is a method of enquiry employed in many different academic disciplines. Qualitative research aims at gathering an in-depth understanding of human behaviour and the reason that govern such behaviour. It investigates the why and how of decision making, not just the what, where and when, hence, smaller but focused samples.

Basically, a case study is a method used to narrow down a very broad field of research into one easily researchable topic which is limited to a smaller area of study. These are very important for this study since human behavior involving the effects of commercial motorcycling on life of the youth, is being studied.

# 6. Sample and sampling technique

Motorcycle riders were interviewed as the basic unit of observation. Stationary or parked motorcycle riders were purposively selected because it was convenient for both the researchers and respondents for the

interview engagement. A sample size of fifty (50) youth motorcycle riders was determined. 50 boys will also be selected using cluster sampling with 25 elements each from: boys who were in school and; boys who were school dropout. Twenty five (25) of other people in the community were also selected through systematic random sampling. Public services comprising the police, teaching, road safety representatives, district assembly and health service were clearly marked, each from which a number of respondents were approached with a well-designed questionnaire. Some of the 25 people described were approached in their various homes in the various towns and villages of the study area at least 3-4km distanced apart.

#### 7. Data collection instruments and techniques

Data was gathered from both primary and secondary sources for the study. Primary data was obtained through questionnaire administration, interview guides, and observation. Secondary data, on the other hand, was obtained from the observations made over the years by the researcher as a commercial motorcycle operator.

Interviews and administering of questionnaire were carried out through field visits to the study area during which motorcyclists and youth within the study area were selected based on the sampling techniques discussed earlier. Some riders who were found packed in wait for passengers and the boys were interviewed. Respondents drawn from the public services: the police, the teachers, the road safety officials were giving questionnaires. Some other members of the community including the parents, elderly etc were interviewed. Data was also gathered from observations we made based on personal experiences as a commercial motor rider for a number of years.

#### 8. Data presentation and analysis

The data obtained through the administration of the research instruments is presented an analysed according to the research questions under the following themes:

8.1. Factors that motivated the youth in Agbozume to engage in commercial motorcycle business

The goal of this objective was to gain empirical insight into why commercial motorcycle riders especially the youth embraced the business despite the challenges associated with it.

It emerged from the result of the study that lack of employment opportunities was a major factor that accounted for the youth engagement in the commercial motorcycling business. Other factors identified included poverty, lack of capital for other businesses, and peer influence. The following are excerpts of responses from interviews to this end:

Unemployment and lack of money to set up a business are the reason for my engagement in "zemidza". I have been a graduate from the university for more than 7 years now but without a

*job. What do you expect me to do? I must survive. I am a married man. The business is o.k. for now (IDI/ commercial motor rider/Agbozume/ March 2016).* 

Another respondent expressed his motivating factors in the following words:

I am in this business just because I want to make money to feed my family. I have my own skilled work, I learnt fitting after secondary school when I could not further my education but I have no capital to start my desired business. I want to make some money to start the business. If I can get the money, I will quit "okada" (IDI/ zemidza rider/ Klikor/ March 2016).

The motivating factors as expressed by youth in the business in the study areas corroborate the finding of Akinfemi (2009) who identified unemployment, and instability of electricity as major pull factors into the business. The responses showed that individuals engaged in commercial motorcycling business were basically motivated by economic reasons as most riders did not have the intention to engage in commercial motorcycling. The result is considered by the researchers as a true reflection considering the fact that university graduates were equally engaged in the the business. Though graduate involvement in the business has criticized (Abane, 1994), such participation is appreciated as a way of surviving strategies for numerous people.

Another factor which motivated the activity of motorbike taxi in Agbozume area was identified as the relative ease in commencing the business. Motorbikes were easily acquired at affordable prices (about GH¢ 900 equivalence in CFA Franc) from the Togolese market which is just a stone throw away from the area for the start of the business. Due to the policy of liberalisation and increasing imports from Asia and China in particular, thousands of brand new motorbikes have flooded the Togolese market. A SANYA motorbike at the Bike House in Aflao is sold at about 1,700 Ghana cedis. The fuel consumption of its engines was said to very. The payment of income to the Ketu South Assembly Council was also described as flexible. More so, spare parts are available at relatively cheap prices and maintenance was also done at a cheap cost. All these facilities have favoured the introduction and spread of motorbike taxis in Agbozume traditional area.

#### 8.2. The benefits of commercial motorcycling

This objective measured the dimension of benefits of commercial motorcycling economy to operators. The ultimate goal is to understand if there is a justification of the youth engagement in this business operation in the study areas and beyond.

The study revealed that there was reasonable level of income in commercial motorcycling operation as indicated in the study areas. The income so generated from the industry made it a viable source of employment. The riders indicated that the business received high patronage of its operations could take people to places where taxis could not reach. The patronage of commercial motorcycling business in the study area showed that there was high amount of financial returns from the business. In other words, commercial motorcycling business had relatively high return in financial gains. In the opinion of the researchers, the benefits associated

with commercial motorcycle make it a viable source of youth empowerment and instrument for poverty eradication which should be considered by government. The following as noted by a respondent highlights the benefits of "zemidza":

Ever since I have been in "zemidza" business, I have been able to pay my children's school fees, feed my family. It is cheap to maintain. It fetches money than commercial taxis. I was once a taxi driver. There is high money in "zemidza" business (interview, "zemidza" rider, Lotakor, March 2016). Okada is my only source of income. It has improved my standard of living as a graduate. In less than two years in the business I have acquired land for building. The business is good (IDI/'zemidza" rider/Agbozume/ March 2016).

It is obvious therefore that commercial motorcycling business is vital and functional to the economic value of the riders in the study areas. This buttresses preceding argument of Adeniji (2009) on the need for government to sustain the industry, though with reasonable level of regulation that could check abuses and excesses of riders.

#### 8.3. Dangers of commercial motorcycling

It can be assumed that commercial motorcycling is much challenging and goes with many dangers. Responses from respondents confirmed this.

According to one operator:

The problem of commercial motorcycle accidents is mainly caused by the impatient attitude of motor drivers. They over-speed on high way and this makes them to lose control which sometimes results in collision with commercial motorcycle (ID/, commercial motorcycle union Chairman/Agbozume/March 2016).

Another operator expressed his opinion thus:

There is a high rate of accident in commercial motorcycle operation. The riders are too careless, rough and impatient. They disobeyed traffic law with flagrance. They over-speed on high ways, lose control of the machine, which result in fatal accident (IDI/GPRTU Official/Agbozume/March 2016).

Motorcycle transport business contributes immensely to the high rate of motorcycle-related accidents recorded daily across the municipality. The high rate of accidents is attributable to lack of training and traffic education among motorcycle operators, impatience on the part of the bike riders, flagrant disregard for traffic rules and regulations and reckless riding by the operators. The factors mentioned above lead to loss of lives of either the operators or passengers.

Further, a police officer said:

Commercial motorcycle riders hardly obey the government regulation. They don't stop for traffic control light or traffic warden signals and any other road regulations. They ride recklessly without particulars (IDI/Police/Nogokpo/ March 2016).

The view of the law enforcement agent corroborates the observation of Solagberu (2006) on the high rate of accident in motorcycle operations. There is an urgent need to enforce traffic regulations on all road users. The police service must check on the carelessness of motorcycle riders.

Another danger associated identified with the use of motorcycle for commercial transportation was its use for criminal activities. It was observed that the increase in the number of motorcycles was not for commercial transport purpose only, but also for criminal activities such as snatching of personal effects such as bags, money, phones and abduction, killing and raping. People of questionable character were said to be among the bike operators. When an unsuspecting passenger stops a criminally-minded rider, he takes the passenger to spots where he/she could be robbed or raped. Such criminal activities are usually perpetrated in the early hours of the morning or late at night.

It also emerged that the activities of commercial motorbike transport went along with health dangers. A teacher making submission on the health risks said:

Health challenges are also involved in commercial motorcycle transport business. The negative health risks on both the operators and the passengers include among others pneumonia, cold, catarrh etc. Fumes and carbon monoxide emitted by motorcycles are on the increase due to increase in the use of motorcycles for commercial purpose. This contributes to increase in the concentration of carbon dioxide and fog in the atmosphere which results in global warming and climate change. The fumes also contaminate the atmospheric air making it impossible for people to always inhale clean air.(IDI/teacher/Hive/ March 2016).

8.4. The effects of commercial motorcycle operations on the education of the youth in Agbozume

Responses from respondents affirmed that commercial motorcycle operation has done more harm than good to youth education in the area. It is a bare fact that many people are aware of the negative toll that the phenomenon has on education of the youth in the community. A 15 year old school boy interviewed on his school compound stated when the question was posed to him that:

I know that commercial motorcycle riding is affecting our education because I know of many of my friends who have stopped school in the name of riding motorbikes and there are many others I know from other schools. It is not because they are not performing but they are just following money. I ride motorbike on weekends only and I will not stop school. Some of them have even died of accidents. (IDI/Student/Agbozume Kpota Basic School/April 2016). School dropout was identified as the overarching effect of the commercial motorbike business in the area. This corroborated Adesanya (1998) when he noted that most of the persons involved in commercial motorcycle transport business are school dropouts, people who were retrenched, and those who have no job. The researchers' observation affirmed this finding. Some boys were found roaming on the street during school hours. When we interviewed them, it was found out that some of them had stopped school for quite a number of years and were riding commercial motorbike and for one reason or the other were out of business. One of these boys retorted:

I was riding a bike but recently my bike had developed some mechanical fault and I sent it for repairs. It is only temporal, soon it will be done and I will return to work. Whiles I wait for my bike to be fixed, I do "spare" and make some "chop money" sometimes.(IDI/A school dropout/Agbozume/April 2016).

It was further revealed that the commercial motorcycle operation phenomenon had a ripple effect on the learner's attitude and performance in schools. Punctuality had become the bane of the schools in the area and this has been predominant among male segment of the student population compared to their female counterpart. Absenteeism and lateness to school was also identified as a major effect of commercial motorcycle operation on the education of the youth in the area. Poor performance was also identified. This was explained to result from student' study time often wasted on this motorcycling business and so did not have enough time devoted to study.

Another effect was indiscipline. In an interview, one man was so passionate about this, drew comparison from his days in middle school to these days. He noted that:

Now students don't respect their parents at home, not to talk about their teachers in school because they make money for themselves from this "Zemidza" (referring to commercial motorcycle operation). They no longer listen to advice. You will tell them that their education is important but they won't listen. How long are they going to be sustained by this business? Their brothers (referring to other youth) are now suffering one trouble or the other...... (IDI/A family man/Agbozume/April 2016).

Interviews conducted with school boys and teachers revealed that students especially boys did not take their lesson seriously, not even their exams. Most of these male students did not rewrite their papers in events of failure. If they were pressed with advice on taking their lessons and exams seriously in order to pass and further their education, they boldly said that they would do commercial motor riding after. They were not even perturbed about what comes out of their performance in school, all they looked forward to, was riding of commercial motorcycle. This problem is so endemic in schools within the study area. A teacher lamented and said:

They begin as temporal riders during holidays and when school resumes, they refuse to go back to school and prefer this job which procures them immediate cash. This has encouraged students to drop out of school. Other students who find it hard to cope with their academic studies turn to

riding as a solution to move on with life. This is the case with most of our former students of the first and second cycle schools here in Agbozume. I have taught in several schools here over the past 15 years in the district, it wasn't like this in terms of students' seriousness with books but this "Okada" thing has taken over their heads. (IDI/Student/Some Senior High School, Agbozume/April 2016).

It can be conclude that commercial motorcycle operations has much negative effects on the general outlook of education in the community. The researchers therefore had a strong conviction that commercial motorcycle operation cannot be detached from the problems associated with the education of the youth in the community.

#### 9. Summary of findings

The study was based on the use of commercial motorcycle as a means of local transportation and how these operations affected youth in Agbozume traditional area of the Volta Region. The following were some findings from the study:

- 1- The study discovered that commercial motorbike transportation business in Agbozume was predominantly male business with most them been youth and school dropouts.
- 2- Lack of employment opportunities, Poverty, lack of start-up capital to start other businesses, peer pressure and the relative ease of starting commercial motorcycling operations were identified as the major compelling factor that motivated the youth into the business of commercial motorcycle transport.
- 3- There were a lot of socio-economic benefits in commercial motorcycling led to the appreciation and acceptance of the business by the youth and community. They included:
  - Financial returns that helped improve the wellbeing of the riders and their families.
  - Employment as people were engaged in it as a full time business.
  - Access to remotest parts of the communities where cars and other vehicles could not.
- 4- Commercial motorbike transport business in Agbozume had dangers associated with it. Among them were crashes and collision with cars and other vehicles leading to serious injuries and death, health hazards to both riders and passengers as a result of sharing one helmet and so on.
- 5- The business had negative impact on the education of the youth in the area including the following:
  - Most of the youth had dropped-outs of school as a result of engaging in commercial motorcycle business.
  - Students did not take their studies seriously because they thought commercial motorcycle business will give them a source of employment in the event of failing their final exams and discontinuing their education.

- Learners who combined their studies with riding barely had time for their studies leading to poor academic performance.
- Absenteeism, lateness to school and indiscipline were identified as other effects of the presence of commercial motorcycle operation in Agbozume Traditional Area.

#### **10. Conclusion**

Considering the discussion of the findings of this study, it can be said that in whichever way one looks at commercial motorcycle operations, one cannot rule out its contribution to the socio-economic wellbeing of the people of the Agbozume Traditional Area of the Volta Region. However, the negative impact it has on the education of the youth needs serious and conscious attention because the future of the youth appears bleak as their education is being overtaken by this commercial motorcycle operations.

#### **11. Recommendations**

The empirical data of the study revealed significant facts on the nature of commercial motorcycle operation and its impact on the education of the youth especially in the study areas. Therefore, based on these facts, the study draws upon the following recommendations.

- The central motivation for engagement in commercial motorcycle business is unemployment and poverty. To reduce the spate of commercial motorcycle operation and the associated dangers, the government should provide job opportunities for youths especially those who have skills.
- Commercial motorcycle operation has impacted negatively on youth education by producing many school dropouts in the area therefore the government should make education attractive to the youth. Those that have secondary education should be provided with sponsorship for higher education. A free scholarship will help them further their education and help them to become more useful to the society.
- Commercial motorcycle business is vital to the economic sustenance of the riders and their dependants. The benefits also extend to passengers particularly the service coverage of transportation means in areas taxis/buses cannot cover. Therefore, the District Assembly should from time to time organise public education for riders on the adherence to road safety regulations and safe riding principles so that the risks involved cab be reduced.
- The law enforcement agencies in the municipality should strictly enforce laws on attaining the lawful age before riding. This will take the school boys off from engaging in riding commercial motorcycles thereby keeping them in school.
- Parents and teachers should exercise necessary control over their wards and constantly advise them to take their studies seriously and prevent them from engaging in commercial motorcycling at the expense of their education.

• Motor riders themselves should opt for furthering their education over commercial motorcycle operation if given the opportunity.

#### References

Abane, A.M. (1994), "Driver Behaviour and City Traffic: Empirical Observations from Accra, Ghana" Research Review, Vol. 10, No. 1 and 2, pp. 1-13.

Adeniji, A. S. (1981), "Public Transport and Urban Development Strategy in Nigeria", Ph.D Thesis, University of Wales .

Adesanya, A. (1998), "The use of motorcycles for public transportation in Nigeria: The situation in Ibadan", NISER Monograph Series, No. 6. pp 12-18.

Afukaar, F.K., Antwi, P. and Ofosu-Amaah, S. (2003), "Pattern of road traffic injuries in Ghana: implications for control", Available at: https://www.ncbi.nlm.nih.gov/pubmed/12772488 (accessed April, 2015)

Akindale, C. and Brieger, W. (2004), "Motorcycle taxis and road safety in Nigeria", International quality of community health education, Vol. 22(1), pp. 17-31

Akinfemi, A. (2009), "Public transportation", The Social Educator, Vol. 4, pp. 24-31.

Charles, M. (2011), "The effects of the revolution of motorcycle transport on the economic growth of Kenya. A case study of Thika District", MBA thesis submitted to the School of Business, KCA University, Kenya

Children Act of Ghana (2008), Children Act of Ghana, Accra, State Press

Dinye, R.D. (2013), "Significance and issues of motorcycle transport in the urban areas in northern Ghana, *Scientific Journal and Review*, Vol. 2(10), pp. 256-272

Gauthier, A. and Hook, W. (2005), "Tapping the market for quality bicycles in Africa", *Sustainable Transport*, Vol.19, pp 8-11

Odero, W. Gardener, P. and Azwi, P. (1997), "Road traffic injuries in developing countries", *Review of tropical medicine and international health*, Vol. 2(5), pp 445-460.

Ogagaghene, T. (2011), A speech at the inauguration of members of association of motorcycle riders in Oyo State, Nigeria, 12<sup>th</sup> May.

Oladipo, O.O. (2012), "The development and Impact of motorcycles as means of Commercial transportation in Nigeria", *Journal of Research on Humanities and Social Sciences*, Vol. 2(6) pp 231-239

Porter, G. (2013), "Urban transport in Cape Coast, Ghana: A social sustainability analysis". Case study prepared for Global Report on Human Settlements 2013. Available at: http://www.unhabitat.org/grhs/2013

Solagberu, O. (2006), "Motorcycle injuries in a developing country and the vulnerability of riders, passengers, and pedestrians", *Journal of Injury Prevention*, Vol. 5, pp 34-42

World Health Organization (2012), Child development and motorcyle safety, Regional Office for South-East Asia.