

IMPACT OF MOTORCYCLE TAXI ON THE EMERGENCE OF OTHER RELATED BUSINESS ACTIVITIES IN SIAYA DISTRICT

Michael Washika Okonda¹, Victor Lusala Aliata^{*2}, Dr. Fredrick Onyango Aila³,
Dr. Benjamin Ombok⁴, Dr. Destaings Nyongesa⁵

¹⁻³Department of Business Administration, Maseno University, Maseno, Kenya

⁴Department of Accounting and Finance, Maseno University, Maseno, Kenya

⁵Department of Economics, Maseno University, Maseno, Kenya

*Corresponding Author

Victor Lusala Aliata

Email: vickyaliata@yahoo.com

Abstract:

In Kenya there has been a significant increase of motorcycle taxi business since 2005 to date. This has resulted into diversification in transport industry and the competitive framework amongst the key operators in the industry. Past studies dwelt on the impact of commercial bicycle taxi on the revenue of other industry players yet little is known about the effect of motorcycle taxi on other related business activities in Siaya district. The purpose of this study was to establish the impact of motorcycle taxi on emergence of related business namely: spare parts trade, motorcycle mechanics, filling stations, and other traders within Siaya District. The study objective was to identify new businesses which have emerged as a result of motorcycle taxi. Multi stage sampling procedure was used to determine the sample size. A sample survey of 18 spare parts traders, 9 filling stations, 6 mechanics and 60 other traders were interviewed. Primary data was used for the study which was collected using structured questionnaire. Descriptive statistics were used to show the extent of variable relationship activities. The study revealed a strong relationship between motorcycle taxi and emergence of sale of spare parts, motorcycle mechanics and filling stations activities. This was evident in the fact that 55% of spare parts traders, 27% of filling stations and 18% of mechanics traders agreed that their business was dependent on motorcycle taxi. The study established that many business emerged after the significant motorcycle taxi business and they exist alongside each other as revealed in 38% sale of spare parts, 36% others and 11% motorcycle mechanics. The study concluded that there are many businesses which emerged after motorcycle taxi entry and that they exist alongside each other. Findings of the study will help the government in formulating and implementing policies on issues concerning motorcycle taxi and other related business. Further research can be done in the area of financial management among motorcycle riders.

Key Words: Motor Cycle, Taxi business, Related business, Siaya District

1.INTRODUCTION

Transport is the means by which people and commodities are moved from one place to another. It therefore makes interaction possible. It plays a necessary part in the movement of goods and development of services. Transport has strategic importance. The ability to transport men and materials to a point where labor force is most effective is an age- old factor in warfare, [22]. Transport creates employment opportunities for many people. It generates revenue to the government through taxes levied such as fuel levy. Insurance firms also earn income through

premiums contributed in return for insurance against the risk of accident. Finally transport opens new markets through the creation of transport infrastructure, [5].

Tremendous changes have taken place in the transportation industry in recent years. For example, the use of bicycle transport could carry passengers across the borders of Kenya and Uganda hence the term bodaboda. This spread fast to other parts of the country including Siaya. There are various means of transport in Kenya: matatus, buses, trains, aero planes, tracks, tuk tuk, bicycles and motor cycles, Republic of Kenya, [15].

LITERATURE REVIEW

According to [7] and [4] as quoted by [11] there exists a relationship between urban transport and poverty. In most cities the poor are widely dispersed even when informal settlements are spatially concentrated. Proliferation of informal settlements throughout urbanized areas and existence of poor households even in normally wealthy regions is the norm, for example, Ayany Estate next to the Kibera slum in Nairobi, [11]. Poverty alleviation can be achieved through employment by assessing transport investment in such areas as bicycle transport. Increase in fares as a result of collapse in basic road infrastructure has negatively impacted on the livelihoods of the poor. Positive influences on the livelihoods of the poor have resulted from employment-intensive settlement infrastructure upgrading schemes, privatization of bus passenger service which has generated unskilled employment opportunities and new services provided by non-motorized goods services. The increasing importance of informal sector activities as a source of income for the poor is changing the nature of travel behavior.

Rapid growth, low incomes and extreme inequality are among the main underlying causes of transport problems in developing countries. Although the nature and extent of transport problems obviously vary from one country to another, virtually all developing countries suffer from the following: -unplanned haphazard developing at the suburban fringe without adequate infrastructure, transport, and other public services; limited network of roads, often narrow, poorly maintained, and unpaved; extremely congested roads with an incompatible mix of both motorized and non-motorized vehicles travelling at widely different speeds; rapidly increasing ownership and use of private cars and motorcycles; overcrowded, uncomfortable, undependable, slow, uncoordinated, inefficient, and dangerous public transport, [14]. "Fundamentally, transport in an underdeveloped country is the same as transport anywhere else but there are special problems which may arise ..." Sharp 1965, Chapter 9, as cited by [23].

[12] studied the effect of increased investment in Bodaboda business on economic empowerment of people in Kisumu west district. The study population comprised of, 100 boda boda owners, and 170 boda boda riders. A total of 43 boda boda owners and 74 riders were selected through a stratified random sampling process. Primary data was collected by use of structured questionnaire while secondary data was obtained from written reports. Data was analyzed using inferential and descriptive statistics and presented in tables, bar charts and pie charts. It was established that the level of boda boda business activities were 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 boda boda business in economic empowerment. Whereas the study attempted to determine the effect of increased investment in boda boda business on economic empowerment

in Kisumu West District little is known about the effects of motorcycle taxi on emergence of other related business activities in siaya district. The study suggested that further studies should be done in other districts to establish the nationwide effect of boda boda business in economic empowerment. Based on this the current study was carried out.

(11) studied, The Impact of Commercial Bicycle Taxi on the Revenue of Other Industry Players in Kakamega District. It was found that commercial bicycle taxi had negatively affected taxi and tuktuk operators` earnings. Six years down the line motorcycle taxi has in turn affected the operations of bicycle taxi operators. However, according to [9] motorcycle taxi is a form of employment that has given opportunities to many people, both young and old, in Kenya at a time when the world is facing a global unemployment problem. While [11] did a study on the impact of Commercial Bicycle Taxi on the Revenue of Other Industry Players in Kakamega District the current study was baased on the effect of motorcycle taxi on related business in Siaya district. Motor cycles are powered by fuel unlike bicycles which are powered by human force and therefore they can have a significant effect compared to bicycle taxi. A study on the effect of motorcycle taxi on the emergence of related business is needed hence this study. [13] examined the role of an urban informal transport sub-sector; the motorcycle taxis (popularly called 'okada'), towards the provision of self-employment and income-generating opportunities for many of the urban unemployed in South West Nigeria. The data for the study was generated from a survey of 777 randomly selected auto cycle riders in two cities in Nigeria and the SPSS software aided data analyses. The study revealed that the subsector is a high employer of young school leavers in the accident-prone job of okada riding. Earnings analyses show that 86% of the operators earn above the minimum wage level while human capital variables explain earnings distribution.

Motorcycle taxi operators face numerous challenges: they ride on weather roads and footpaths which are either too muddy or with many potholes, they break down often owing to the poor roads. This requires regular repairs and replacement of spare parts which eats into their hard earned profits. The cost of fuel is not stable; generally it has been on an upward trend. This demands upward adjustment in their charges. This is often resisted by passengers who are accustomed to the normal charges. There is the challenge of bad weather which makes motoring almost impossible on mud and rain.

RESEARCH METHODOLOGY

The study adopted a descriptive survey research design which is helpful in determining and reporting the way things are (8). The study drew its sample of study from motorcycle and spare parts dealers, filling stations and mechanics in Uranga division of Siaya district. A population of 200 motorcycle taxi, 60 spare parts traders, 30 filling stations, 20 mechanics and 200 other traders was envisaged, [16]and Motorcycles and other Trader's Associations records. Out of this 30 per cent of each category, (3), were interviewed i.e.60 motorcycle, 18 spare parts dealers, 9 filling stations and 6 mechanics and 60 other traders. The study used both primary and secondary data. Primary data was collected using a questionnaire.

Using cluster sampling the population parameters were divided into clusters that were as homogeneous as possible with desirable characteristics such as location, type and nature of business. Most of the divisions have in place some form of rudimentary organisational structure

with elected officials to direct the affairs of each take-off point. In such locations, each *boda boda* operator is registered and pays the regular association dues. The sampling frame therefore is made up of all registered and active members in the selected take-off points. Quality of data was achieved by conducting a pilot study which aimed at refining the instruments. The pilot study was administered on 10% of participants from each study strata as recommended by (8). Those who participated in the pilot study were not included in the final study. The researcher used descriptive statistics. Data was presented in, tables, pie charts and bar charts.

RESULTS AND DISCUSSION

Sex distribution of motorcycle taxi operators

Majority of taxi operators interviewed are males. This was represented by 98% compared to 2% of females. This implies that motorcycle taxi business is a male dominated activity. This could be due to tough nature of the business and the challenges involved.

Table 1
Sex distribution of motorcycle taxi operators

<i>Sex</i>	<i>Frequency</i>	<i>Percentage</i>
<i>Male</i>	59	98
<i>Female</i>	1	2
<i>Total</i>	60	100%

Source: Survey data, 2011

Distribution by age of motorcycle taxi operators

The average age of motorcycle taxi operators is 27 years while majority of those who operate motorcycle taxi are aged between 25 – 30 years.

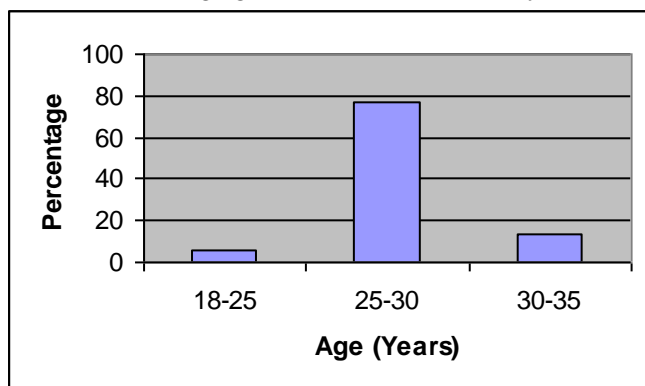
This constitutes 77% compared to 13% and 10% who are aged between 30 – 35 years and 18 – 25 years respectively. This is in agreement with (12), who found that the motorbike the average age of motorcycle taxi is 29.5 years. This represents a large proportion of Kenyan youths who are jobless. It is therefore a business for young people.

Table 2
Distribution by age of motorcycle taxi operators

<i>Age</i>	<i>Frequency</i>	<i>median (x)</i>	<i>Fx</i>	<i>Percentage</i>
18-25	6	21	126	10
25-30	46	27	1242	77
30-35	8	32	256	13
<i>Total</i>	60		1624	100%

Source: Survey data, 2011.

Figure 1
Bar chart showing age distribution of motorcycle taxi operators



Source Survey data, 2011.

Education level of the taxi operators

Majority of the respondent, 67% have a Kenya Certificate of Secondary Education; followed by 20% who had a diploma, and 10% with a primary certificate. However 3% of the respondents were University graduates who had not secured formal employment for long. Therefore the micro industry can be regulated to create favorable conditions for its growth as a source of employment for both skilled and semi-skilled labor.

Table 3
Education level of taxi operators

Level	Frequency	Percentage
KCPE	6	10
KCSE	40	67
Diploma	12	20
Degree	2	3
Total	60	100%

Source: Survey data, 2011.

How often the motorcycles are serviced

Motorcycles are serviced quite often. This is represented by 70% of the respondents, 17% and 13% of respondents service them very often and less often respectively. It requires the services of motorcycle mechanics to service motor cycles. Motorcycle taxi business has therefore guaranteed motorcycle mechanics ready market and steady income. This positively improves motorcycle maintenance business. However, as highlighted in the literature review some areas have narrow paths that are muddy and therefore unmotorable. This has led to emergence of other transport facilities such as bicycles. It could therefore be argued that with the emergence of bodaboda business it is naturally expected that motorcycle mechanics were to emerge as well.

Table 4
How often the motorcycles are serviced

Response	Frequency	Percentage
Very often	10	17
Often	42	70
Less often	08	13
Total	60	100%

Source: Survey data, 2011.

Maintenance costs involved in running motorcycle taxi

The most frequently incurred cost in running motorcycle taxi is fuel 60%; followed by maintenance 23% and purchase of spare parts at 17%. This has led to emergence of many filling stations, motorcycle mechanics and spare parts traders to complement motorcycle taxi business. Motorcycle taxis have provided a good opportunity for investment in motorcycle manufacturing and assembly and spare parts as well as oil industry. Investors will not only get a ready market for finished motorcycles but will also access abundant skilled and semi-skilled labor.

Table 5
Maintenance costs involved in running motorcycle taxi

Costs	Frequency	Percentage
Maintenance	14	23
Fuel	36	60
Spare parts	10	17
Total	60	100%

Source: Survey data, 2011.

Businesses dependent on motorcycle taxi

Majority of business dependent on motorcycle taxi constitute 55%. These are motorcycle spare parts traders. This is followed by 27% and 18% who sell fuel and offer maintenance services respectively. The high number of motor cycle taxis and the high operating costs such a fuel and maintenance account for the high number of spare parts and filling stations traders. The traders provide complementary goods or services to motorcycle taxi business. Therefore these businesses will exist one alongside the other.

Table 6
Businesses dependent on motorcycle taxi

Business	Frequency	Percentage
Filling stations	9	27
Sale of spare parts	18	55
Motorcycle mechanics	6	18
Total	33	100%

Source: Survey data, 2011.

Businesses that emerged as a result of motorcycle taxi

Majority of the businesses that emerged as a result of motorcycle taxi are sale of spare parts 38% followed by other assorted business 36%; 15% filling stations and 11% motorcycle mechanics. They emerged to provide goods or services that support the operation of motorcycle taxi. They therefore exist alongside motorcycle taxis. This confirms the objective which sought to find out the number of businesses which have emerged as a result of motorcycle taxi. The businesses exist alongside motorcycle taxi operators to complement their needs. The study compares well with a study carried out by (12).

Table 7
Businesses that emerged as a result of motorcycle taxi

Business	Frequency	Percentage
Filling stations	7	15
Sale of spare parts	17	38
Motorcycle mechanics	5	18
Others	16	36
Total	33	100%

Source: Survey data, 2011

Description of level of business activity in the area

Majority of the respondents, 40% agree to there being a very high level of business activity while 35% and 25% indicated that the level of business activity has been high and moderately high respectively. This is attributed to motorcycle taxi operators who spend their income on running their business and personal consumption. This increases demand for related goods and services. Taxis have also opened up inaccessible areas, increased small scale investment and eased movement of goods, raw materials and labor.

Table 8
Level of business activity in the area

Description of level of business activity in the area

Response	Frequency	Percentage
Very high	37	40
High	33	35
Moderately high	23	25
Low	-	-
Total	93	100%

Source: survey data, 2011.

Interdependence between motorcycle taxi and other business

Many of the respondents constituting 75% indicated that there is interdependence between motorcycle taxi and other business compared to 25% who indicated that there is no relationship. This interdependence is a clear manifestation that bodaboda business has a multiplier and therefore if favorable policies are put in place it can improve the living standards of many people.

Table 9
Interdependence between motorcycle taxi and other business

Response	Frequency	Percentage
YES	70	75
NO	23	25
Total	93	100%

Source: Survey data, 2011.

CONCLUSION AND RECOMMENDATIONS

The research aimed at establishing the impact of motorcycle taxi on emergence of other related businesses. The results indicate that there is a strong relation between motorcycle taxi and the emergence of activities of filling stations, motorcycle spare parts, motorcycle mechanics and other traders. Most motorcycle spare parts trade, filling stations and motorcycle mechanics emerged as a result of motorcycle taxi in the proportion of 38% spare parts, 15% filling stations and 11% mechanics. This implies a positive effect. They set up business to supplement motorcycle taxi. They provide goods and or services which motorcycle taxi operators cannot do without since they are jointly demanded. Seventy five per cent of business respondents agreed that there is interdependence between motorcycle taxi and other related business.

The research finds that there is a positive relation between motorcycle taxi and emergence of filling stations, motorcycle mechanics and spare parts trade. The following businesses emerged in the proportion shown as a result of motorcycle taxi sale of spare parts 38%; filling stations 15%; motorcycle mechanics 11% and others 36%. This is in line with objective one which sought to find the number of businesses which have emerged as result of motorcycle taxi. Filling stations, motorcycle mechanics and spare parts trade exist to provide fuel, maintenance and sale of spare parts respectively to motorcycle taxi operators. The results show that the main operating costs incurred by the taxi operators occur in the following proportions; maintenance 23%; fuel 60% and spare parts 17 %. This result confirms that there exists mutual relationship between motorcycle taxi and related business. On the other hand motorcycle taxi relies mostly on business people other than office or factory workers for their clientele. It is recommended that the government should offer investors with the technological knowhow and the opportunity to establish a motorcycle manufacturing plant, to meet high demand for motorcycles and motorcycle accessories since it has become a popular means of transport and source of employment to many either directly or indirectly. The government should lower tax on fuel to reduce ever increasing fuel prices since this constituted the taxi operators main cost. It should also introduce favorable policies that can promote the growth of the industry and other dependent industries. This will lead to creation of employment opportunities to many youths. Further research should be carried out in areas of road safety and safe riding, influence and dangers of alcohol and drug abuse among riders and financial management. Research can also be carried out in other districts with unique characteristics. Also to be researched are other micro-industries of equivalent effect as the motorcycle operation services.

REFERENCES

1. Barke, M. (1986). Transport and Trade, Oliver and Boyd, Oxford Butterworth Heinemann.
2. Black, A. (2000). Urban Mass Transportation Planning, McGraw-Hill, Inc. New York
3. Creswell, J. (2003). Research Design Sage Publications.
4. Gannon , C. & Liu, Z. (1997). Poverty and Transport. TWU 30
5. Howe, J. and Richards, P. (2003). Rural Roads and Poverty Alleviation, Intermediate
6. Indire, J., Nyam, J, Ngugi, D. and Mbuvi, K. (2004). Certificate Business Studies Form 2, OxfordUniversity Press, New York.
7. Kranton, R. (1991). Transport and the mobility needs of the poor urban, Infrastructure and urban Report No. INU 86
8. Mugenda ,M.O and Mugenda, G.A. (1999). Research Methods: Quantitative and Qualitative Approaches, Acts Press, Nairobi, Kenya.
9. Nesoba, D. (2010). Motorcycle Boom Tied To Increase in Road Accidents in Kenya, Retrieved from <http://www.globalpressinstitute.org/global-news/africa/kenya>
10. O'Flaherty, C.D. (2003). Transport: Planning and Traffic Engineering - Oxford Butterworth Heinemann,
11. Ogilo, F. (2005). The Impact of Commercial Bicycle Transport on The Revenue of Other Industry Players: A Case Study of KakamegaTown.
12. Olawo, K. W., Ochieng. I., Ombok, O.B., Achieng' & Opondo, F. (2014). The effect of increased investment in Bodaboda business on economic empowerment of people in Kisumu west district. European Journal of Business and Management, 6 (39)

13. Oluranti. I. O. (2011). Informal Self-Employment and Poverty Alleviation: Empirical Evidence from Motorcycle Taxi Riders in Nigeria, *International Journal of Economics and Finance* 3 (2)
14. Pucher. J. Korattyswaropam, Mittal, N and Ittyerah, N. (2005). Urban Transport Crisis in India, *Transport Policy*, Vol. 12 Retrieved from www.elsevier.com/locate/transpol.
15. Republic of Kenya (2002). Kenya Police Traffic Department
16. Republic of Kenya (2010). Siaya District Municipal Council Records.
17. Rodney, T. (1990). *The Greening of Urban Transport, Planning for Walking and Cycling in Western Cities*, Belhaven Press.
18. Rutto, W. (2010). Kenya's Motorcycle Transport Business – A Death Trap to the Ignorant. Retrieved from <http://www.globalpressinstitute.org/globalnews/Africa/Kenya>
Technology Publications Ltd, London.
19. The World Bank. (2006). *Cities on the Move: A World Bank Urban Transport Strategy Review*, WashingtonD.C.
20. The World Bank Urban Transport Strategy Review (2003). WashingtonD.C.
21. Vasconcellos, A. E (2001). *Urban Transport, Environment and Equity: The Case of Developing Countries*, Routledge 1st edition
22. Wells, G.R. (1993). *Comprehensive Transport*, George Allen and Unwin.
23. White, H.P. and Senior, M.C. (1993). *Transport Geography*, Longman Scientific and Technical Longman Group, U.K Ltd.
24. Wikipedia, Okada Commercial Motorcycle in Kano, Nigeria.
25. Xinhua, (2010). Motorbikes Popular as Means of Transportation. Retrieved from www.coastweek.com/kenxin