

# **TRAINING, TESTING AND LICENSING OF DRIVERS OF PUBLIC SERVICE VEHICLES:**

## **Their Implications for Compliance with Traffic Regulations in the City of Nairobi, Kenya**

**P CHITERE**

Department of Sociology and Social Work, University of Nairobi

P. O. Box 30197-00100 Nairobi, Kenya, pchitere@uonbi.ac.ke

### **ABSTRACT**

The objective of this study was to find out how far training, testing and licensing of paratransit public service vehicle (PSV) drivers ensured their compliance with road safety regulations. Fifty two (52) drivers were sampled and interviewed from 13 routes situated along four major corridors in the City of Nairobi. About two-thirds (61.5%) of the drivers reported having lowly complied with traffic regulations. The PSV industry was dominated by SACCOS/company-sole proprietor type of organization and operations characterized by setting of target amount of money to be given to the operator each day and casual employment with daily wage and no other benefits. More of the drivers who had attended professional schools or refresher courses, those who were older and those who had served for more years tended to comply with traffic regulations. Establishment of PSV schools with standard syllabus, introduction of hybrid system with BRT operating on major corridors and contracted to better performing SACCOs/companies and employing better qualified drivers will improve compliance with traffic regulations.

#### **1. BACKGROUND**

In Kenya, the number of Public Service Vehicles (PSVs) increased rapidly from about 400 in the early 1960s to an estimated 2,000 in 1982 (Kapila, Manundu and Lamba, 1982) to about 17,600 in 1990 (Bhushan, 1993) to 40,000 in 2004 (Asingo, 2004) and about 60,000 by 2012 [Kenya, Government of, Transport Licensing Board (TLB) Report, 2012]. These PSVs comprise about 4.5 per cent of the total number of 886,000 vehicles in the country (Gatheru, 2005) and transport nearly 85 per cent of people and goods in both rural and urban areas (Kenya, Government of, National Road Safety Action Plan, 2005). Of these PSVs, 9,554 operate in the city of Nairobi (Kenya, Government of, TLB Report, 2012).

The PSVs comprise mini-buses (*matatus*) and larger buses. The term *matatus* (or in slang form as *mathree* or *mats*) which literally translates to three ten cent pieces (*mang'otole matatu*) is a local Swahili term referring to Nissans, mini-buses and build-up Peugeot pick-ups with seating capacities ranging from 7 to 25 passengers (Kenya, Government of, Traffic Act Cap 403, 1993). Other PSVs are the omni-buses with seating capacity of 26-51 passengers. Following the collapse of the railway system, the PSVs transport nearly 95 per cent of people and goods within the City and between the City and other towns [Kenya, Government of, Integrated National Transport Policy (INTP) Report, 2003].

Unfortunately, this rapid growth of the PSV sub-sector has been accompanied by an equal increase in road accidents and associated fatalities and injuries. For example there were 11 194, 91 057 and 10 610 crashes with associated 2 937, 2 264 and 2 531 deaths and 25 971, 18 609 and 20 240 injuries in 2003, 2004 and 2005, respectively and a consequent high cost to the country in terms of loss of the most productive persons in the labour force and health care (Kenya, Government of, NRSAP, 2005).

To improve the country's road safety record and to achieve its goal of: "To ensure efficient, safe and affordable public transport services", the government initiated several policy reforms. In 2004, the then Minister for Transport, John Michuki, re-activated a number of traffic rules which were named after him as "Michuki rules" and included, reduction in carrying capacity of PSV vans from 18 to 14 seats; installation and wearing of seat belts, installation of speed governors restricting speed to 80 km per hour and painting of the PSV with a yellow stripe (Kenya, Government of, Legal Notices Nos. 161, 83 and 92 of 2004 and No. 6 of 2005). The rules also required drivers to be certified through issuance of a certificate of good conduct by the police to enable them obtain a Public Service Vehicles (PSV) license, re-tested every two years and employed on permanent terms (Kenya, Government of, Legal Notices No's 161, 83 and 92 of 2004). Other policy measures have included, decision to phase out low capacity (14-25 seater) *matatus* and a requirement for all PSV operators to form or join Savings and Credit Cooperatives (SACCOs/companies so as to be granted TLB licenses (Daily Nation Newspaper, 16<sup>th</sup> February, 2006, page 11). There is also a proposal to introduce the BRT system (Kenya, Government of, INTP Report, 2003) on Nairobi's five corridors—Waiyaki, Thika, Mombasa, Langata and Ngong roads and their being contracted to SACCOs and bus companies with adequate capacity to provide transport services. In 2012, Parliament amended the Traffic Act Cap 403 of 1993 to provide room for establishment of the National Transport and Safety Authority (NTSA) mandated to ensure: Road safety, vehicle registration and inspection, driver testing and PSV licensing (Kenya, Government of, Traffic Act Amendments, 2012). The amendments increased traffic fines for minor and major offenses.

Some of these measures such as installation and use of seatbelts and speed governors have hardly been observed by operators and PSV drivers. Similarly, while a large number of SACCOs and companies have been formed, individual sole-proprietors continue to manage and make key decisions relating to operation of their PSVs.

The Integrated National Transport Policy (Kenya, Government of, INTP, 2003) and the National Road Safety Action Plan (NRSAP) (Kenya, Government of, NRSAP, 2005) proposed: (a) Review of the operations of driving schools and their licensing; (b) Develop and introduce new driving schools syllabus; (c) Support the establishment of advanced driver training facilities for PSV drivers, instructors and professional drivers; (d) Review driver testing and ensure that driver fitness and competence were properly assessed; (e) Enhance the skills of existing drivers who were never properly trained; and (f) Review and introduce new computerized driver licensing.

In 2012, the Ministry of Transport and Infrastructure (MoTI) in collaboration with the World Bank developed a standard curriculum to be used in all driving schools (Kenya, Government of, Curriculum for Driving Schools, 2012).

Kapila, Manundu and Lamba (1982) in their study of matatus found, among other things, that 63 per cent of the metro-Nairobi matatus were operated by employed drivers and 37 per cent by the owners. Age of most drivers was between 21 and 30 years (59%) and about 58 per cent of the owner drivers and 50 per cent of the employed drivers had some secondary while the remainder had primary education.

Muyia's (no date) study of 143 drivers found, among other things, that half of the drivers had some secondary while 34 per cent had some primary education. About 69 per cent of the drivers had attended formal driving schools while the remainder had learnt driving on their own. Only one per cent owned the vehicle they were operating and the remainder were employed. The reasons for joining the industry included lack of employment and influence of friend/family. The study also found that employers pressurized drivers by setting the minimum target amount of money to be collected each day and thus making them work for long hours and that 97 per cent of the drivers had been involved in road accidents once or severally.

Whereas these and other related studies have examined work conditions of the drivers, none of them focused on their training, testing and licensing.

The objective of this study is: To examine the training, testing and licensing of the drivers and its influence on their compliance with traffic regulations in the city of Nairobi.

## 2. METHOD OF STUDY

The City of Nairobi has an area of 696 square km and a population of 3,14 million in 2009 (Kenya, Government of, Population Census 2009). It is Kenya's capital city and also a commercial hub in the Eastern African region.

The city has nearly 138 intra-city and metropolitan area routes (Kenya, Government of, TLB Report, 2012). Thirteen routes operating along the main corridors of Theca, Mombasa, Langata and Jogoo and their sub-corridors were purposively sampled. They were: Kawangware/Dagoretti (2/46/24), Embakasi-Mukuru (33/34), Githurai (44/45), Langata (14), Mathare North (29/30/25), Kileleshwa (48), Ngumo (7C/40), Eastleigh (6/9), Kenyatta National Hospital (7), Kangemi (23), Ngong (110), Buruburu (58) and Ruai (39). Four matatu vehicles were purposively sampled from each route and their drivers (i.e. 52 drivers) were contacted and interviewed using an interview schedule. Other data were gathered through open-ended interviews of the Managing Directors, Kenya Bus Service (KBS), Forward and Embasava Saccos, Treasurer of Matatu Owners Association, managers of Glory, Automobile Association (AA) and Heltz driving schools, and two Deputy Secretaries, MoTI and traffic police commandants Ruaraka and Nairobi area stations as well as from secondary sources.

The dependent variable of study was "compliance with traffic regulations" referring to how far the drivers had observed the regulations. The responses were probed by the author and his research assistant to minimize bias in the form of favourable reporting by some of the drivers. Predictor variables were: Nature of the PSV industry, quality of training in PSV driving, length of the training, length of service as PSV drivers, size of the PSVs, age, formal education, previous occupation and working conditions of the drivers.

### 3. RESULTS OF THE STUDY

#### 3.1 The Training, Testing and Licensing of the Drivers

*Training:* Basic training of drivers in the city of Nairobi and surrounding areas is carried out by 28 commercial driving schools (Annex 2). Of these schools, Sony, Rocky, Heltz, Glory, Wings, Automobile Association (AA), National Youth Service, Senior, Wajimmy and Glen Edmunds are widely known. Some of the schools have branches within and on the outskirts of the city.

The standard training comprises 15 hours of practice on the city's roads and unlimited time for theory covering table, road signs and other important details. The time of practice is shorter (e.g., about 4 hours) for those who have been teaching themselves driving and are making final preparations for being tested and more than 15 hours for those desiring extended training (Glory Driving School Syllabus, 2012). Schools such as Kenya Bus Service and AA provide professional driving offer additional training in first aid, basic mechanics, vehicle maintenance and security driving (Pers. Com. between Managers of KBS and AA and the Author, January, 2014).

To qualify for admission to this basic training, an applicant must have: National identity card, four passport photos and a provisional driving license.

The Kenya Bus Service (KBS) Training Centre which is the only PSV driving school in the country trains drivers and conductors for the company (KBS Training Centre Brochure).

*Testing:* Driver training is completed through testing and award of a license. Testing is carried out by the Drivers Testing Unit (DTU) of the traffic police which has 17 centres in Kenya, three of which are in the city of Nairobi at Ruaraka, Karen and Jogoo and manned by 6, 5 and 5 chief inspectors and inspectors of police, respectively (Pers. Comm. between Deputy commandant, DTU and Author, Jan., 2013).

Space does not permit detailed presentation of information on testing of drivers. It suffices to note that at Ruaraka testing centre which the author visited, there were only 6 examiners and each tested 15-18 candidates a day taking about 30 to 40 minutes with each.

All of the drivers sampled reported that they were tested at various centres in Nairobi and outside. The testing was arranged by the driving school in 84.6 per cent of the cases, by self (9.6%), employer company (1.9%) and 3.8 per cent did not respond. About 30.8 per cent of the drivers reported experiencing problems during testing which included: Not being able to control vehicle, being worried and intimidated, panicking and harassment by police who asked many questions at the same time.

*Licensing:* For a PSV license to be awarded, the applicant obtains a certificate of good conduct from the Criminal Investigation Department (CID) which is endorsed by a senior police officer of a rank of superintendent or higher (Pers. Comm. between Deputy Commandant, DTU and Author, Jan., 2013). The applicant must be over 24 years old and having held a driving license for at least 4 years.

### **3.2 Compliance of the drivers with the traffic regulations**

The regulations which drivers are expected to comply with are contained in the Traffic Act Cap 403 of 1993, amendments made to the Act in 2012, the Traffic Licensing Board (TLB) Act, official gazette notices and other directives issued by the Cabinet Secretary and other senior officers of the MoTI. The regulations include, obtaining a TLB license so as to operate a vehicle as a PSV, certification of drivers' good conduct and licensing them as PSV drivers, installation of speed governors restricting speed of PSV vehicles to 80 km per hour, installation and wearing of seat belts, testing of mechanical conditions of vehicle and certification as road worthy and safe driving devoid of instances such as obstruction and overlapping.

These regulations were not fully observed as evident in 2 394, 2 263 and 2 257 crashes that occurred within the City in 2011, 2012 and 2013 with associated fatalities and injuries (Table 1). Whereas causes of the accidents were not indicated, there is likelihood that a large number of them arose from non-compliance with traffic regulations.

**Table 1: Fatalities and injuries in the City of Nairobi: 2011, 2012 and 2013**

| <b>Types of Injuries</b> | <b>2011</b> | <b>2012</b> | <b>2013</b> |
|--------------------------|-------------|-------------|-------------|
| Fatal                    | 728         | 759         | 807         |
| Serious                  | 1 594       | 1 491       | 1 639       |
| Minor                    | 1 441       | 1 100       | 1 100       |
| Total                    | 3 763       | 3 350       | 3 346       |

Source: Traffic Police Office, Nairobi County.

Most of the persons killed were pedestrians followed by passengers and by a few drivers, conductors, motor cyclists and pedal cyclists.

Traffic offenders taken to courts were 61937, 55010 and 60100 in 2011, 2012 and 2013 and were fined Ksh 112.5 (US\$ 1.3), Ksh 187.5 (US\$ 2.2) and Ksh 358 (US\$ 4.2) million, respectively. Of these fines, those paid by PSV drivers, conductors and passengers were Ksh 47.7 (US\$ 0.56) and Ksh 69 (US\$ 0.80) million in 2011 and 2012 implying that PSV related fines were 42.4 and 36.8 per cent of the total fines during the two years. Since a large proportion of the fines, especially PSV related ones are settled through corrupt deals on roads, there is likelihood that they exceeded all fines for traffic offences.

The 52 drivers sampled were asked to answer “Yes” implying compliance and “No” indicating non-compliance to the following: a) Ensured that seat belts were installed; b) Ensured that Seat belts were used; c) Did not use unauthorized route; d) Did not use unauthorized stops; e) Did not make U-turn; f) Did not switch lanes at wrong points of road; g) Did not overtake wrongly; h) Did not overlap; i) Did not obstruct; j) Did not overload; k) Installed and used speed governors; l) Did not use worn out tyres; m) Did not drive vehicle without TLB; and n) Did not drive vehicle without renewing his/her PSV.

Each was treated as an item and given an equal weight providing a range of 0 to 14 items. About 8 per cent of the respondents had complied with all the items and the lowest complier (1.9) had observed only 2 items. We created two categories of high compliance (>9 items) and low compliance (<8 items) and found that nearly a third (34.5%) of the drivers were high compliers and the remainder were low.

Reasons for non-compliance included, desire to pick passengers on route when vehicle was empty, unawareness that he/she was non-complying, to avoid traffic jam and harassment by passengers to alight where there were no stages.

When the drivers were asked if they had caused accident(s) over the past one year, 25 per cent responded affirmatively and reported the causes of the crashes as including, lack of or loss of brakes, obstruction, overloading, head-on collision and careless reversing.

### **3.3 Factors influencing compliance of the drivers with the traffic regulations**

The factors were: Quality and length of training, age, formal education, previous occupation of the drivers as well as their length of service in the PSV industry, type of PSV employers, size of the PSVs and terms of employment.

*Quality of driver training:* Of the 52 drivers interviewed, 98.2 per cent reported having trained in a driving school and the remainder had taught themselves how to drive. Only 5.8 per cent had attended AA which is a professional driving school.

Refresher training was reported to have been attended by 29 (55.8%) and lasted a day to a week at KBS, AA and other local driving schools.

When training was cross-tabulated with compliance with traffic regulations, significant association was observed between them (Chi-square = 8.667, df = 2,  $p < 0.05$ ) (Annex Table A). That is, more drivers who trained in professional schools such as AA or local schools but received refresher training tended to observe traffic regulations than their counterparts in reverse situation.

*Length of the training:* The drivers sampled were asked to indicate the number of weeks their training at driving schools had lasted. About 8 per cent attended for a few days presumably to learn the table and be assisted by the schools to arrange for the driving test, half had attended the driving schools for less than 4 weeks, 9.6 per cent had done so for 5 to 8 weeks while 32.7 per cent had done so for the required period of more than 9 weeks. When length of training was cross-tabulated with compliance, no significant association was observed between them (Chi-square = 2.894, df=2,  $p < 0.05$ ).

*Age:* The sampled drivers' age conformed to the PSV requirements in that 17.3% were <29 years, 15.4 per cent were 30-34, 8.5 per cent were 35-39 and 28.8 per cent were >40 years. The youngest was 27 years while the oldest was 60 years with nearly half of the drivers being older in their mid-30s to mid-40s and the remainder younger. When age was cross-tabulated with compliance, significant association was observed between the two variables (Chi-square = 8.237, df = 3,  $P < 0.05$ ) showing in effect that the level of compliance was higher among the older drivers than among the younger ones.

*Level of formal education:* This is not a requirement but might be necessary for PSV drivers in future. Of the 52 drivers, 1.9 per cent had not attended school, 19.2 per cent had had primary, 63.4 per cent had obtained secondary and the remaining 15.4 per cent had had diploma and university education. More of the drivers had had secondary schooling with most having completed this level of education. No significant association was observed when education of the drivers was cross-tabulated with their compliance with traffic regulations (Chi-square = 2.577, df = 2,  $p > 0.05$ ) implying that level of education did not influence compliance.



*Previous occupation:* This was also likely to influence competency of the drivers and hence their level of compliance with traffic regulations. Before becoming PSV drivers, 61.5 per cent of the respondents had worked as drivers of lorries, taxis, companies or private family vehicles and in related occupations of mechanic, motor vehicle electrician and lorry turn boy, 26.9 per cent had been in other types of employment such as teachers, waiter, shop attendant, artisan, businessman or casual labourer, 7.7 per cent had been unemployed and 3.8 per cent did not answer. The reasons for becoming a PSV driver was their career/talent/passion (23.1%), driving was the only work that was readily available (36.5%), did so owing to low income of their previous occupations (15.4 %), owned their own matatu (5.8%) and other reasons such as having been laid off in previous occupation and unreliability of previous employment mentioned by the remainder.

No marked association was observed when this factor was cross-tabulated with compliance (Chi-square = 1.175, df = 2,  $p > 0.05$ ) implying that the drivers' previous occupation did not influence their observation of traffic regulations.

*Length of service as PSV drivers:* Asked when they were first licensed as PSV drivers, 42.3 per cent did so in 2003 or earlier, 40.4 per cent between 2004 and 2008 and the remainder between 2009 and 2013. When length of service of PSV drivers was cross-tabulated with compliance, significant association was observed (Chi-square = 4.414, df = 2,  $p < 0.20$ ) (Table 1) implying that older PSV drivers tended to be more observant of the regulations than the new entrants.

Nearly all of them reported renewing their PSV licenses on yearly basis as required by the traffic regulations. Asked what problems they had faced with the renewal of the licenses, 25 per cent of the 52 drivers had not experienced problems, 44.2 per cent reported long queues at the Kenya Revenue Authority and waiting for two weeks to get the license, 9.6 per cent did not get the certificate of good conduct in time and also complained of presence of middlemen in the licensing process. Police harassment and corruption and not a one stop shop process were each mentioned by 3.8 per cent and 1.9 per cent said that there was no vetting to show that one was a qualified driver. One respondent put it ".....if one knows and believes he can drive, then why should he go for the license?". Another respondent said "...there was no vetting at TLB to show whether one was qualified".

*Type of PSV driver employers:* The Kenya Bus Service (KBS) company using large buses was the dominant provider of transport services in the city of Nairobi during the 1960s to 1980s (Opiyo, 2002). In the 1990s, the Nyayo Bus Company operated by the National Youth Service was introduced by the government and provided intra- and inter-city services in most parts of the country. A paratransit mode, *matatus* had also emerged in late 1950s, grew rapidly and was in early 1970s recognized as a legitimate form of public transport by the then President, Mzee Jomo Kenyatta (Kapila, Manundu and Lamba, 1982). Following stiff competition from *matatus* and other related reasons, the KBS and the Nyayo Bus companies collapsed leaving public transport services to be dominated by the paratransit *matatus* managed by sole-proprietors and relying on low-capacity pigeon pick-ups and subsequently 18-seater Nissan vans. KBS which had changed to a franchising system and a few other bus companies, associations and SACCOs with larger capacity (25-51 seater) vehicles such as Double-M and City Hopper emerged and operated alongside paratransit *matatus*.

In 2010, following the directive by the MoTI requiring operators to form or join existing SACCOs and companies, there were 700 such organizations in the whole country by 2011 (Kenya, Government of, Report, 2011). Of these SACCOs and companies 24.3 per cent were based in the City of Nairobi and smaller towns in its suburbs and about 10 per cent were inter-city type originating or terminating their services in Nairobi.

We found two dominant modes of organization of the PSV SACCOs and companies: Formally-structured with fleets managed and controlled by a central management system which employed 25 per cent of the drivers; and loosely structured types which were joined with individual sole operators who branded their PSVs using the name of the SACCOs/company, but continued to recruit their drivers and other staff and operate independently employed 55.8 per cent —the remaining (17.3%) drivers were employed by individual sole-operators or from squads. Whereas sole-operators are members of SACCOs, they made decisions relating to management of their PSVs independently.

When type of employing organization of the drivers was cross-tabulated with their compliance to traffic regulations, marked association was observed between them (Chi-square = 3.815,  $p < 0.20$ ,  $df = 2$ ) implying that observance of the regulations was higher in formal types than in the loose or individual/squad types.

*Size of PSVs:* Of the 52 drivers sampled 14 (26.9%) reported driving 14-seater vans while the remainder drove mini- and large buses with seating capacities of 25 to 51 passengers. When size of PSV was cross-tabulated with compliance with traffic regulations, no marked association was observed between them (Chi-square = 0.787,  $df = 1$   $p > 05$ ) implying that size of the PSV did not influence compliance.

*Terms of employment:* About 83 per cent were employed on daily basis, 9.6 per cent on contract, 5.8 per cent on permanent and the remainder was not clear. Only 7.7 per cent reported having been given letters of appointment and the remaining majority (92.3%) worked on verbal terms. Payment for their services was done on daily basis (94.2%), monthly (1.9%) and weekly (1.9%) and the remainder did not respond. The payment was reported as Ksh 800 - 1,000 (US\$ 10-12) for the larger buses and Ksh 500 -600 (US\$ 6-7) for the smaller PSVs. One Managing Director (MD) of a leading SACCOs said "...there is resistance from drivers being employed on monthly basis because they do not want to pay tax and to be controlled by operators". They may also not be sure how they would be paid when the PSV breaks down, is involved in an accident or impounded by a loaning agency.

Daily targets by employers were Ksh 25,000 to 30,000 for the larger and relatively new PSVs and Ksh 3,000 to 5,000 for the smaller ones (Pers. Comm. between Author and the Manager, Forward SACCO).

Normal leave had been received by 9.6 and off-duty by 17.3 per cent and the remainder did not get leave and offs. Health insurance cover provided by employer was reported by only 1.9 per cent, uniforms by 5.8 per cent, none of the drivers had benefitted from contributions to the National Social Security Fund (NSSF) through the employer and only 5.8 per cent reported receiving loans from SACCOs.

When employment benefits were cross-tabulated with compliance, no association was observed between them (Chi-square = 0.400, df=2, p>0.05) implying that benefits did not influence compliance with traffic regulations.

## **4. CONCLUSIONS**

The study confirmed that there was a high incidence of road crashes and associated fatalities and injuries in the city of Nairobi occasioned by low compliance of nearly two-thirds of the drivers sampled with traffic regulations and rules. The level of compliance was higher among drivers who had had better quality of training as well as among those who were older and who had worked in the industry for more years. Equally compliance was higher among more of the drivers who were employed by formal transport companies/SACCOs with pooled operations. The smallness of the sample did not permit us to establish why younger, presumably better educated drivers did not equally comply with the traffic regulations and rules.

It was, however, more of the older, better trained and experienced drivers who were employed by the formal companies/SACCOs who had higher compliance level. It was also these formal firms which had potential for being contracted by the government to operate the Bus Rapid Transport (BRT) system when launched as envisaged by the INTP.

The main implications are that there is need for strengthening driver training as noted by the NRSAP and the need for enhancement of formalization of the industry which in turn would enhance its professionalization and preparedness to operate the envisaged BRT mode.

## **ACKNOWLEDGEMENT**

I am grateful and thankful to the Volvo Foundation which supported this project through the African Centre for Excellence in Transport, University of Cape Town.

## REFERENCES

- Asingo, P. 2004. Institutional and organizational perspective of public road transport in Kenya, IPAR Discussion Paper No. 50, Nairobi
- Bhushan, K. 1993. *Kenya economic projections fact book*. Nairobi: New Spread International
- Daily Nation Newspaper, 2006. Supplement on public road transport, February 6<sup>th</sup>, page 11
- Kapila S., Manundu M. and Lamba, D., 1982. A Report on matatu mode of public transport in metropolitan Nairobi, Mazingira Institute
- Kenya, Government of, 1993. Traffic Act Cap 403, Government Printer, Nairobi
- Kenya, Government of, 2003. Integrated Transport Policy, MoTI, Nairobi
- Kenya, Government of, 2003 and 2004. Legal Notices Nos. 161, 83, 92 and 6, Government Printer, Nairobi
- Kenya, Government of, 2005. National Road Safety Action Plan, MoTI, Nairobi
- Kenya, Government of, 2009. National Population Census, Government Printer, Nairobi
- Kenya, Government of, 2011. Report on Approved Saccos and Companies, MoTI, Nairobi
- Kenya, Government of, 2012. Traffic Licensing Board (TLB) Report, MoTI, Nairobi
- Kenya, Government of, 2012. Traffic amendments Act, Government Printer, Nairobi
- Kenya, Government of, 2012. Standard Curriculum for driving schools, MoTI, Nairobi
- Muyia, M.(n.d.) The forgotten workers. The case of public service drivers in Eldoret town, Kenya. <http://www.Ossrea.net/muyia.htm>
- Opiyo, T. 2002 The Metamorphosis of Kenya Bus Services Limited in the Provision of Urban Transport in Nairobi' SSATP/World Bank, Urban Mobility Component, 12th Steering Committee Meeting, Maputo, July 1-5.

## ANNEXURE 1

**Table A: Relationships between compliance of drivers with traffic regulations and other variables**

|   | <b>Compliance of the Drivers</b> |                |       |
|---|----------------------------------|----------------|-------|
| <b>Training of drivers</b>                  | High (>9 scores)                 | Low (8 scores) | Total |
| Professional/refresher                      | 15                               | 16             | 31    |
| Normal Driving School Training              | 2                                | 15             | 17    |
| None  | 3                                | 1              | 4     |
| Total                                       | 20                               | 32             | 52    |
| Chi-square = 8.667, df = 2, p>0.05          |                                  |                |       |
| <b>Length of PSV Drivers</b>                |                                  |                |       |
| >10 years (joined 2003 or earlier)          | 12                               | 10             | 22    |
| 6 – 9 years (2004-2008)                     | 5                                | 16             | 21    |
| < 5 years (2009-2013)                       | 3                                | 6              | 9     |
| Total                                       | 20                               | 32             | 52    |
| Chi-square = 4.414, df = 2, p>0.10          |                                  |                |       |
| <b>Age of the Drivers</b>                   |                                  |                |       |
| <29 years                                   | 3                                | 6              | 9     |
| 30 – 34                                     | 1                                | 7              | 8     |
| 35-39                                       | 6                                | 14             | 20    |
| >40 years                                   | 10                               | 5              | 15    |
| Total                                       | 20                               | 32             | 52    |
| Chi-square = 8.237, df = 3, p>0.05          |                                  |                |       |
| <b>Type of Employer organization</b>        |                                  |                |       |
| Formal sacco/company with pooled operations | 7                                | 6              | 13    |
| Loosely structured sacco/company            | 8                                | 21             | 29    |
| Individual proprietor/squad                 | 5                                | 4              | 9     |
| Total                                       | 20                               | 31             | 51    |
| Chi-square = 3.815, df = 2 p<0.20           |                                  |                |       |

## ANNEXURE 2

### Driving schools in the City and outskirts of the City of Nairobi

| Name                              | Location         |
|-----------------------------------|------------------|
| Neptune                           | Nairobi West     |
| Eden                              | Mombasa Road     |
| Royal Automobile                  | Jerusalem Estate |
| Sony                              | City centre      |
| Iqra                              | Hurligham        |
| Diamond defensive Driving Academy | Mombasa Road     |
| Road Skills Driving School        | Kitengela        |
| Venus                             | Mombasa Road     |
| Prosperity                        | Juja             |
| Africana                          | Waithaka         |
| Heltz                             | City Centre      |
| Impala                            | Juja             |
| Violet                            | Factory Street   |
| Wings                             | City Centre      |
| Glory                             | City Centre      |
| Trezian                           | City Centre      |
| AA, Kenya                         | Hurligham        |
| City Driving School               | City Centre      |
| Total Quality                     | South B          |
| Baraka                            | City Centre      |
| Seniors                           | Kangemi          |
| Consolata                         | City Centre      |
| Glen Edmunds                      | Airport Road     |
| Accurate                          | City Centre      |
| Avisz                             | City Centre      |
| Advanced Training Institute       | Industrial Area  |
| Kenya Bus Service Training Centre | Kawangware       |