

Field Study of Mobile Phone Use by Motorists in Accra: 2010-2014

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Abstract

Mobile phone use by motorist is a known road accident risk factor. However, little known research has been conducted in Ghana to determine the actual rate of mobile phone use by motorists. In this study, we try to estimate the rate of usage by motorists in Accra-Ghana. Drivers on six major roads in the city were observed in regards to their use of mobile phone while driving over four years. Gender of the driver and the type of vehicle used by the driver was also recorded. The results show that among 9,383 drivers that were observed over period, on average 9.4% (almost 1 in 10) motorists used their mobile phones everyday. In addition, mobile phone use increased over the period from 4.4% (1 in 25 drivers) in 2010 to 9.4% (1 in 10 drivers) in 2013. The results also show that there was a significant difference between men (9.0%) and women (12.2%) in the use of mobile phone by motorists in the Accra. In addition, average daily use of mobile phones among drivers of private vehicles (13.2%) was higher than among commercial vehicles (5.6%).

Keywords: Mobile Phone, Driver Distraction, Motorist, Private Vehicles, Commercial Vehicles

1. Introduction

The level of road accidents and associated injuries and fatalities in Ghana is a matter of great concern to government and development planners in the country. Statistics released by the Motor Transport and Traffic Unit (MTTU) of the Ghana Police Service in Ghana indicate that in the year 2000 there were 14,650 accidents in Ghana with 1,159 killed and 10,518 injured. By 2004 the number of accidents has risen to 14,734 with 1,907 deaths and 10,657 injuries. In 2010, the number of accidents was 12,981 with 1,760 deaths and 11,147 injuries. These are damning statistics. It means that in 2010, there were almost 36 accidents per day in Ghana with 5 people dying a day.

There are several reasons for road accidents in Ghana, however, the emergence of mobile phones, in-vehicle information systems, advanced driver support systems, entertainment systems, etc., has added to the factors of road accidents. The results of such in-car distractions usually lead to driver inattention and subsequently collisions. Driver distraction and inattention in its various forms is thought to contribute 20-30% of all road crashes.

The mobile phone, although a relatively new technology is already widely accepted device used worldwide. Information from the World Health Organisation (WHO) has found that between 2008 and 2009 the use of mobile phones in developing countries are estimated at 57 per 100 inhabitants, while in high income countries use has largely exceeded 100%. The mobile phone has also brought new possibilities to many people especially on the African continent. Across urban-rural and rich-poor divides, mobile phones connect individuals to individuals, share information, promote markets and other services. Currently, nearly every adult you encounter in Accra or any major city or village within Ghana is carrying a mobile phone – sometimes more than one (Aker et al, 2010).

There are several reasons why many people would like to own a mobile phone. They include:

- **Communication**

Mobile phones facilitate communication and give people greater flexibility. Compared with traditional landlines, mobile phones are more successful in reaching the person required. Only one in five landline to landline office calls reaches the desired person, compared with four in every five calls using a mobile phone. With mobile phones, there is no need to be based in a particular location, e.g. office or home. It is possible to have direct contact with whoever you need, whenever you need them and to use your time more efficiently (Utter, 2001).

Safety

Besides communication, for many people, safety is another important reason for having a mobile phone. Personal safety could be improved by being able to make all kinds of emergency calls: call for help, services, report vehicle breakdowns, report accidents, dangers on the road, medical emergencies or crime in progress and even keeping drivers awake by talking to someone when there is a risk of falling asleep at the wheel (Utter, 2001). In Ghana, statistics on such activities are scant but it is generally known that most calls to radio stations, emergency services, police and other service providers are conducted from mobile phones.

1.1 How Mobile phone distracts a driver

The use of a mobile phone while driving distracts the driver and causes various changes in driving behaviour that could negatively affect traffic safety. Although driving is a complex task, almost everybody can do it. In time, basic activities related to controlling a vehicle become automatic and generally these activities do not require much mental processing. This routine element of driving allows drivers to engage in parallel activities that are not related to driving, such as use of a mobile phone. However, despite the automation of driving routines, there is evidence that these parallel activities may distract drivers and negatively affect their driving performance. A large part of the distraction involves the need to physically handle the phone. Activities such as reading the mobile phone display screen, pressing buttons and holding the phone to the ear all require the driver to take his hands off the steering wheel or his eyes off the road. Mobile phones require a driver to listen to the person speaking through the phone, leaving the driver less likely to hear another driver's horn or an emergency siren. When thoughts are focused on the subject of the conversation, they are also less focused on driving. When someone drives and uses the phone at the same time his concentration is split between the conversations and driving the car, he is therefore unable to react quickly enough when situations change abruptly on the road. Using a mobile phone whilst driving draws a driver's attention away from traffic, road conditions and vehicle operation. The distractive effects of mobile phone use usually depend on the momentary context of driving. Phone use during undemanding driving periods may not seem to be a problem. However, both the demands of the driving context and the content and demands of the mobile phone conversation play a role in this process. The level of complexity of the phone conversation (its cognitive demands) is an important factor that also determines the extent of the effect of the phone conversation on driving performance (Utter, 2001).

The mobile phone distraction in drivers can therefore be summarized in two ways: Physical distraction and Cognitive distraction. Drivers are not only physically distracted by phoning and driving simultaneously, but they are also cognitively distracted by having to divide their attention between the conversation they are involved in and tasks relating to driving. Studies suggest that the use of mobile phones – regardless of whether hand-held or hands-free – while driving leads to an increased crash rate compared to when a driver does not use a mobile phone. What is clear is that while the relative impacts of distraction on driving ability may vary by type of phone, age, or sex, using a mobile phone while driving increases the absolute likelihood of a collision for all drivers (Redelmeier et al, 1997).

In Ghana, the use of mobile phones by motorists has become almost an accepted behaviour but several surveys have actually concluded that using a mobile phone behind the wheel is more dangerous than drink-driving and more likely to cause a car accident. The purpose of this study therefore is to assess the rate of mobile phone use by vehicle drivers in the Accra metropolis. The study presents results of a four (4) year survey of the use of mobile phone by drivers on six (6) major roads in Accra. The data was collected through direct observation while vehicles were stopped in traffic or moving on the roads. The objectives of the study are to:

- Determine the degree of mobile phone use among drivers while driving on selected roads in Accra
- Determine the sexual distribution of phone usage among drivers in Accra
- Measure the effect of traffic flow on mobile phone use by motorists
- Determine the level of phone use by different categories of vehicles
- Determine the trend of mobile phone use by drivers over the period of study

1.2 Estimate of car crashes related to driver distraction

Police in most countries do not systematically report the use of a particular distracting activity, such as using a mobile phone, in crash reports, and thus it is difficult to estimate the contribution distraction makes to road traffic crashes, and the consequent danger it poses on the world's roads. Where police do include distraction in crash reports, drivers are less likely to disclose their use of mobile phones as it can indicate fault, and thus data are likely to be underreported. However, a selection of studies highlighted below indicates a growing body of evidence suggesting that distraction is an important contributor to road traffic crashes. An Australian study examined the role of self-reported driver distraction in serious road crashes resulting in hospital attendance, and found that distraction was a contributing factor in 14% of crashes. In New Zealand, research in 2008 suggests that distraction contributes to at least 10% of fatal crashes and 9% of injury crashes. Insurance companies in Colombia reported that 9% of all road traffic crashes were caused by distracted drivers in 2006. Of all cases where pedestrians were hit by cars, 21% were caused by distracted drivers. In Spain, an estimated 37% of road traffic crashes in 2008 were related to driver distraction. In the Netherlands, the use of mobile phones while driving was responsible for 8.3% of the total number of dead and injured victims in 2004. In Canada, national data from 2003–2007 show that 10.7% of all drivers killed or injured were distracted at the time of the crash. In the United States, driver distraction as a result of sources internal to the vehicle was estimated to be responsible for 11% of national crashes that occurred between 2005 and 2007, although a smaller study involving 100 drivers found that driver involvement in secondary tasks contributed to 22% of all near crashes and crashes. In 2008, driver distraction was reported to have been involved in 16% of all fatal crashes in the United States. In

Great Britain, distraction was cited as a contributory factor in 2% of reported crashes (Redelmeier and Tibshirani 1997).

1.3 Estimates of risk increase due to mobile phone use - Epidemiological Studies

Some epidemiological studies that have been conducted on mobile phone use while driving will be discussed here.

- **Redelmeier and Tibshirani (1997)**

Redelmeier and Tibshirani (1997) used the case-crossover design in order to quantify the impact of mobile phone use while driving. The study was conducted in Toronto, Canada. It evaluated the mobile phone use of 699 drivers who had mobile phones and who were involved in a road crash resulting in substantial material damage (but not personal injury). When comparing usage during a 10 minute period immediately before the accident, to the same period on a comparable preceding day, Redelmeier and Tibshirani found that the risk of a collision when using a mobile phone was four times higher than the risk when a mobile phone was not being used. Calls close to the time of the collision were particularly hazardous: the relative risk was 4.8 for calls within 5 minutes before the collision, compared with 1.3 for calls more than 15 minutes before collision. The results of this study suggested that hands-free mobile phone offered no safety advantage over handheld units. When analysing only drivers with hands-free mobile phones, Redelmeier and Tibshirani found a relative risk of 5.9. When the study was restricted to analysing drivers who had owned a mobile phone for more than five years, Redelmeier and Tibshirani still obtained a relative risk of 4.1. This suggested that the relationship was not just a reflection of inexperience but might indicate a more basic limitation in driver performance (Sullman et al, 2004)

- **Violanti & Marshal (1996) and Violanti (1998)**

Violanti and Marshal compared 100 randomly selected drivers involved in crashes in two years with a group of 100 randomly selected drivers who had been accident-free for ten years. They found that conversations on mobile phones for more than 50 minutes per month were associated with a 5.59 fold increased risk in road crashes. The main limitations of the Violanti and Marshal case-control study is that the study was based on a relatively small sample and there was no control for potentially critical confounders (e.g. distance driven per year). The validity of the study results is therefore limited. In a subsequent case-control study, Violanti (1998) tried to determine a statistical relationship between traffic fatalities and the use or presence of a mobile phone. Violanti analysed 223,137 reported road crashes in the state of Oklahoma between 1992 and 1995. The results indicated that both the use and presence of a mobile phone in the car were associated with an increased statistical risk of a traffic fatality. Drivers who reported using a mobile phone stood an approximate nine-fold risk of a fatality compared with drivers who did not use a phone. The mere presence of a mobile phone in the vehicle was associated with twice the risk of fatality compared with the risk for drivers with no mobile phone in their car (Wang et al, 1996).

- **Laberge-Nadau et al. (2003)**

The objective of the Laberge-Nadau et al. study was to verify the relationship between mobile phone use and road crashes while attempting to overcome some of the problems found in previous epidemiological studies. After mailing 175,000 questionnaires about exposure to risk, driving habits, opinions about activities likely to be detrimental to safe driving, some socio-demographic information, information about potential crashes involvement within the last 24 months and additional questions for mobile phone users about the use of the mobile phone, 36,078 completed questionnaires were received. Data from three data sources were merged: data from files on mobile phone activity provided by phone companies, data from files for 4 years of drivers' records and data from police reports. The main result of the study is that the relative risk for injury collisions and for all collisions is 38% higher for mobile phone users. When taking into account potentially confounding variables (kilometres driven, driving habits, educational level, listening to and adjusting the radio, CD tapes), the adjusted relative risk for all collisions is lower, i.e. 1.11 for male users and 1.21 for female users compared with non-users. The most significant finding of this study is a dose-response relationship between the frequency of mobile phone use and crash risks. The adjusted relative risks for heavy users are at least two compared with those making minimal use of mobile phones. These light mobile phone users have similar collision rates as non-users. The final conclusion of the authors of this study is that their results and applied study design and considerations justify causal inference of the frequent use of mobile phone and higher crash risks (Lamble et al, 2002).

- **McEvoy et al. (2005)**

This study was conducted in Perth, Australia on 456 drivers who owned or used mobile phones and had been involved in a road crash between April 2002 and July 2004 resulting in hospitalisation. The study used a case-crossover design where the driver's use of a mobile phone at the estimated time of the crash was compared with the same driver's use during another suitable time period. The hazard interval was defined as the 10 minute period before the crash and was estimated based on several resources (emergency response records, medical records, self-reports, phone-company records). McEvoy et al. found that drivers using a mobile phone when driving are four times more at risk of having a road crash resulting in hospitalisation. This result is consistent

with that of Redelmeier and Tibshirani (1997). Sex, age or type of mobile phone did not affect the relationship between mobile phone use and the risk of a road crash.

1.4 Estimates of level of mobile phone use while driving

Although data about the precise number of mobile phone subscribers does exist, data about the number of drivers using their mobile phone while driving are not so precise. There are three major sources for estimating these numbers:

- Self-reports about the use of mobile phones while driving
- Observational studies
- Police accident records

However, each of these sources has certain limitations and consequently, only approximate and rather biased estimates of exposure are available (Utter, 2001).

As the mobile phone market expands there has been a continuous, even dramatic increase in the number of mobile phone subscribers. At the same time, the percentage of drivers using mobile phones in their vehicles has also increased. Observational studies from the US, Australia and the UK give comparable results concerning actual road exposure rates in an approximate interval of 1 to 4% of drivers using mobile phones at any given moment during the day.

It is estimated that between 70 to 90% of drivers in the US use their mobile phones while driving at least some of the time 13. However, although the vast majority of drivers use mobile phones in their vehicle, the extent of phone use varies substantially. In the NHTSA survey, the National Occupant Protection Use Survey (NOPUS) data collection protocols were expanded to include observation of driver handheld mobile phone use. The results showed that in the US, at any moment, 3% of drivers were using mobile phones. Several other American observational studies performed in Washington State, North Carolina, Texas and Michigan support this NHTSA result with observed rates ranging from 3 to 5%. Two subsequent surveys performed in 2002 and 2004 revealed an increase in the use of handheld mobile phones in vehicles. Compared with 3% of drivers in 2000, in 2002, 4% of drivers were using a handheld mobile phone at any daylight moment. In 2004 this percentage rose to 5%. (Violanti et al, 1996). In Perth, Australia, a study in 2001 showed that an average 1.5 % of drivers using handheld mobile phones during the daytime. The observed users were predominantly male (78%) and under the age of 40 (64%) Kircher et al, 2001).

The results of a New Zealand survey in 2004 showed that 57.3% of those surveyed use a mobile phone while driving at least occasionally. Of those who reported using a mobile phone while driving, 17.2% reported having a hands-free kit while the majority of drivers (82.8%) did not. Drivers who use a hands-free kit tend to use mobile phones more frequently, report a much higher annual mileage and have a new car with larger engines. In 2000, a survey of 1000 UK drivers showed that 37% of drivers use a mobile phone while driving, one third of whom did so 'often'. Young, male and high mileage drivers were more likely to use a mobile phone while driving (Horberry et al, 2001). Between October 2000 and April 2002 surveys carried out of mobile phone use by car occupants showed that by 2004, 2.1% of drivers used mobile phone whilst driving and the proportion of drivers using mobile phones has been consistently higher among men than women and higher on rural than on urban roads. In Sweden, one third of drivers reported using mobile phones daily while driving. The estimates of are that mobile phones were used during about 2% of the total driving time in Sweden (Laberge et al, 2004). A phone poll conducted by the Central Organisation for Traffic Safety in Finland in May 1997 reported that 38% of drivers had a mobile phone in their car. 24% of these drivers used a mobile phone daily while driving (McEvoy et al, 2005).

There is currently no data available in Ghana linking mobile phone use by drivers to possible driver-related car crashes. However, the general trend in mobile phone acquisition or subscription in Ghana has been increasing since 1998. In 2012, the number of mobile phone subscribers outstripped the population of Ghana implying possibly that there is more than one mobile phone subscription for every person in Ghana. Table 1 gives the trend in mobile phone acquisition/subscription from 1998-2012.

Year	1998	2001	2003	2005	2007	2009	2012
Number of Subscribers	30,000	150,000	799,900	2,842,000	7,604,000	17,436,000	25,618,427

Table 1 Mondri Index of mobile phone subscribers

1.5 Mobile Phone Legislation in the World

Several strategies have been designed to try to reduce mobile device use while driving. However, laws alone have not yet proven effective at decreasing the behaviour among drivers. Additional strategies are needed to be

applied to reduce mobile device use while driving. In the United States and other countries for instance, law enforcement efforts, communications campaigns, vehicle and mobile phone technological advances, legislation, and education. A few studies have examined the effects of mobile phone use laws on the general population and have indicated that laws might be effective in decreasing certain types of cell phone use (e.g., hand-held use), particularly when combined with high-visibility enforcement by police officers. However, these laws have not yet been shown to result in decreased crash rates. Many countries have implemented restrictions on mobile phone use while driving. In Israel, Japan, Portugal, and Singapore, all mobile phone use is prohibited while driving. The use of hand-held phones is prohibited while driving in Austria, Brazil, Chile, Denmark, Germany, Greece, Hong Kong, Hungary, India (New Delhi), Italy, the Philippines, Poland, Romania, Slovenia, South Africa, Spain, Switzerland, and Turkey. In addition, drivers in the Czech Republic, France, the Netherlands, and the United Kingdom can be fined if they are involved in a crash while using a mobile phone. Drivers in Germany and the United Kingdom can lose their insurance if they are involved in a crash while using a mobile phone. Using a hand-held mobile phone by motorist is also illegal in South Africa.

In July 2012, Ghana parliament passed a new law banning the use of mobile phones while driving. The new rules include talking on a hand-held mobile phone, sending text messages, using hands-free devices and the operation of television monitors on the dashboard of vehicles when driving. According to the new Road Traffic Regulations act passed, drivers caught breaking the law will be arrested and fined. However, it is the enforcement of the law that continues to be the problem in the country. Majority of drivers are seen each day on the country's highways and roads, speaking on hand held phones while driving.

2. Methodology

The main data collection method is observational research. Researchers were positioned on six major roads in Accra to observe the drivers in their vehicles. The population under observation was all types of vehicles in Accra. We categorized the vehicles into Taxis, Trotro, Saloon cars, 4x4/SUVs, Trucks & Buses. Motorcycles were excluded. Observers were instructed to observe vehicles in only the lanes on the same side of the road and a single direction of traffic flow. The researchers observed the drivers inside the vehicles and recorded whether they were talking on their mobile phones or not. The observer would check the passing vehicle and quickly record what he sees on a sheet of paper. The drivers who were clearly seen talking on their mobile phone while driving were recorded. In order to determine the proportion of users and non users of mobile phone, drivers who were not using their mobile phone were also recorded. The researchers were situated such that they could not be seen by the drivers. We did this to ensure that the drivers do not become aware of the observations. We did not observe drivers at places where there were police presence as we believed this could change a driver's behaviour. Observers recorded the total number of vehicles and the number of drivers using mobile phones. The study was carried out during the month of December for four consecutive years: December 2010, December 2011, December 2012 and December 2013. In addition to observing the drivers use of mobile phones, the researchers also observed and recorded the place of observation, type of vehicle and the sex of the driver.

The study was carried out on six selected roads in Accra. The roads were selected in four geographical locations and included: Caprice-Achimota road located in the northern part of Accra, Kaneshie Market Road and Odorkor roads in the western part of Accra, Accra Mall and Accra - Tema Motorway roads located in the eastern part of Accra and the Ring-Road in south of Accra. The data for the four year study can be found in Appendix B. Descriptive Statistics was employed to analyze the data to arrive at results. Trend lines and charts were used to illustrate the results.

3. Analysis of Results

The study revealed that average daily mobile phone use by drivers rose from 4.4% in 2010 to 15.5% in 2011 and then 14.3% in 2012. This dropped significantly in 2013 to 7.5%. In effect, mobile phone increased at a rate of 0.78 per annum over the period of study. Over the 4 year period of study, we found that on the average, Accra Mall (13.3%) was the road with the highest use of mobile phone by drivers. Ring Road recorded an average of 13.0% usage, with Kaneshie (10.8%), Odorkor (10.4%), Tema Motorway (9.6%) and Caprice (6.7%) following in that order. The breakdown of mobile phone use by drivers at various locations is found in Figure 1. There was also a significant difference among the various categories of vehicles. Use of mobile phone by drivers among private vehicles was found to be higher than use among commercial vehicles. Drivers of private vehicles (Saloon cars and 4x4/SUVs) were found to be the most frequent users of mobile phone. Among Saloon cars, 13.3% and of 4x4/SUVs, 13.2% used their mobile phones. The use among commercial vehicles was lower: Taxi (5.4%), Trotro (3.8%) and Trucks & Buses (7.7%). The combined use of mobile use by drivers at various locations by different categories of vehicles is illustrated in Figure 4. The study further revealed that drivers in slow lanes: Accra Mall (13.3%), Ring Road (13.0%) Kaneshie (10.8%) used mobile phones more often than drivers in faster lanes: Odorkor (10.4%), Motorway (9.6%), Caprice (6.7%). We also determined from the study that over the period, the proportion of male users (9%) was smaller than proportion of female users (12.2%).

Figure 1. Mobile Phone use at various Locations in Accra

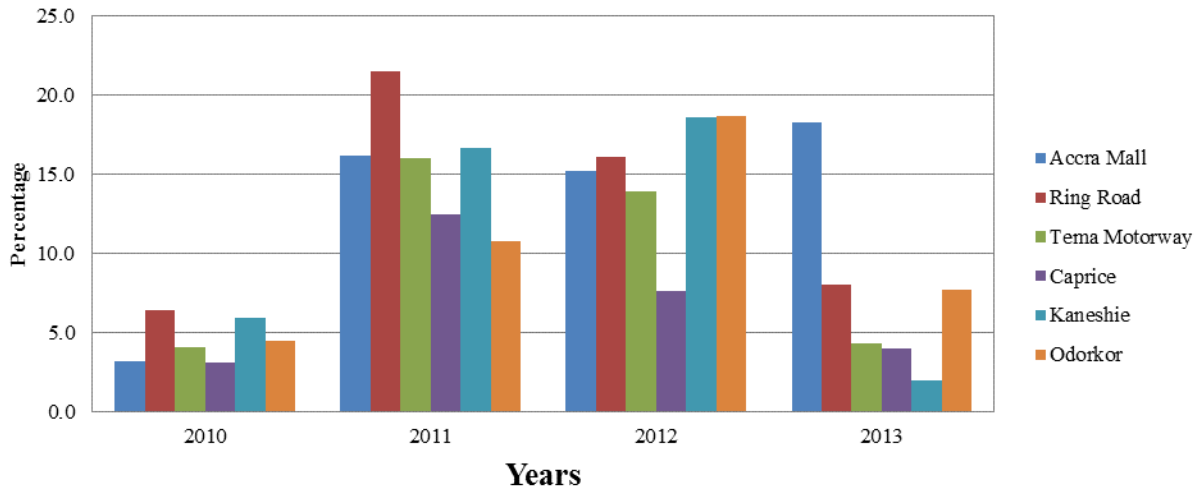


Figure 4. Composite graph of mobile phone use in regards to vehicle type and locations from 2010-2012

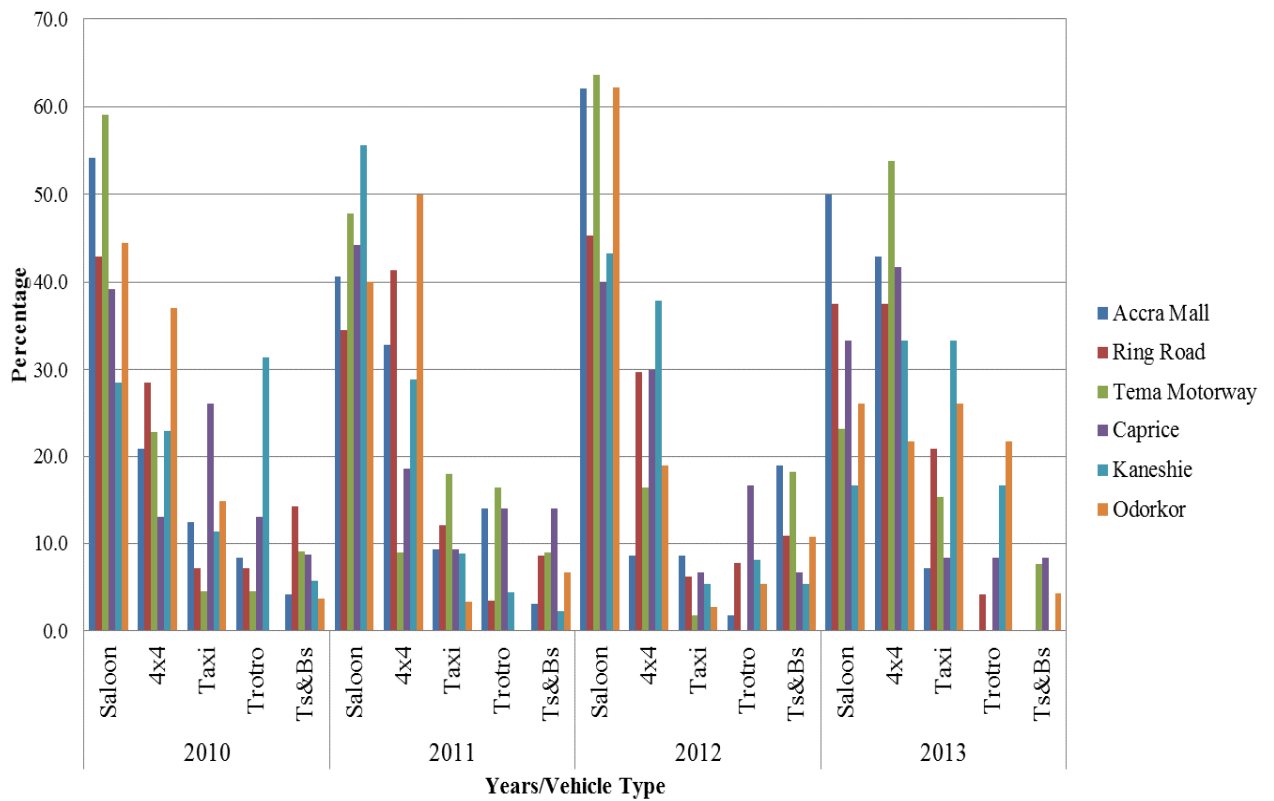


Figure 6. Trend analysis of mobile phone usage by vehicle type

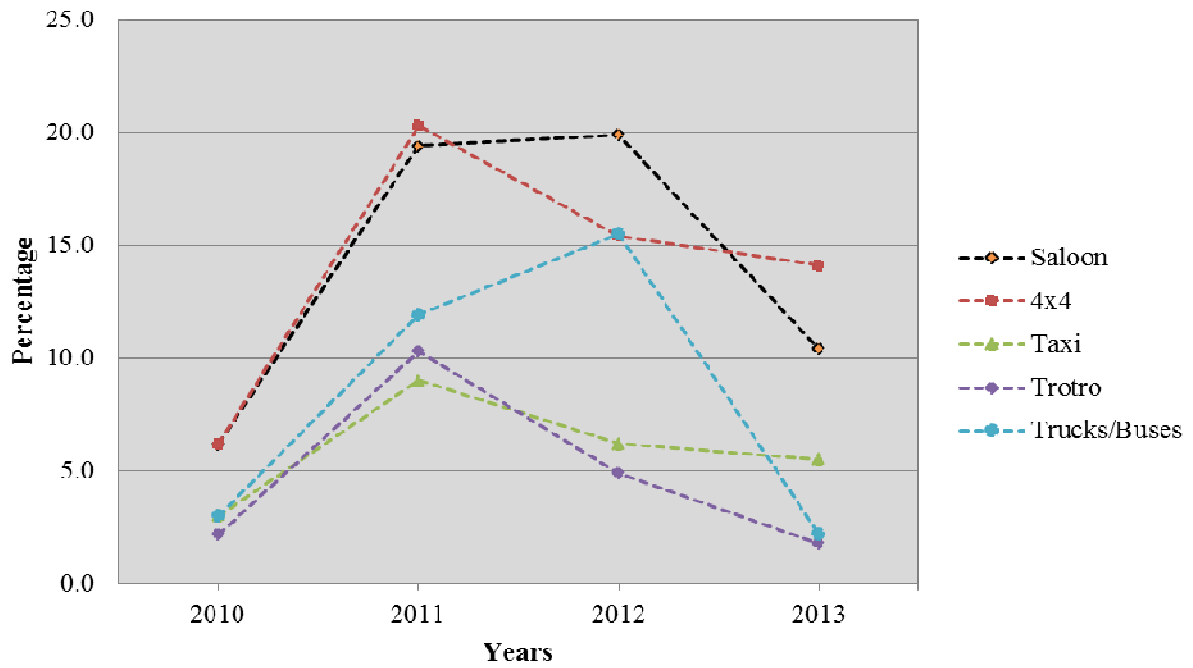


Figure 5. Trend analysis of mobile phone usage by gender

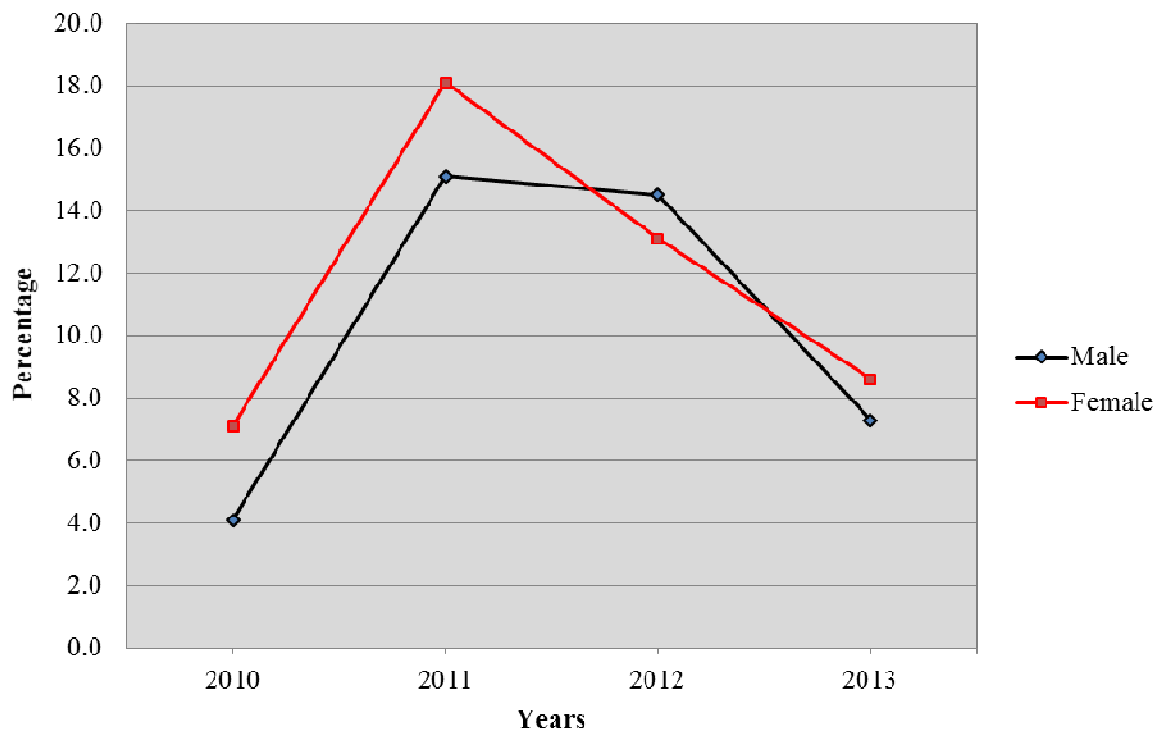
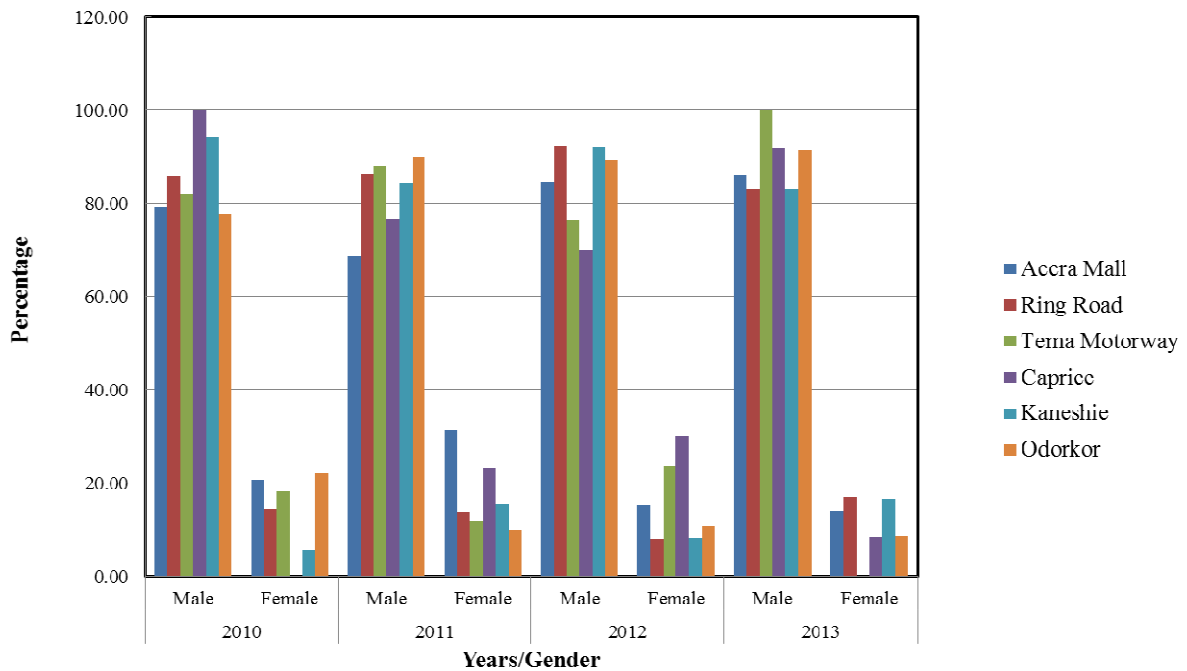


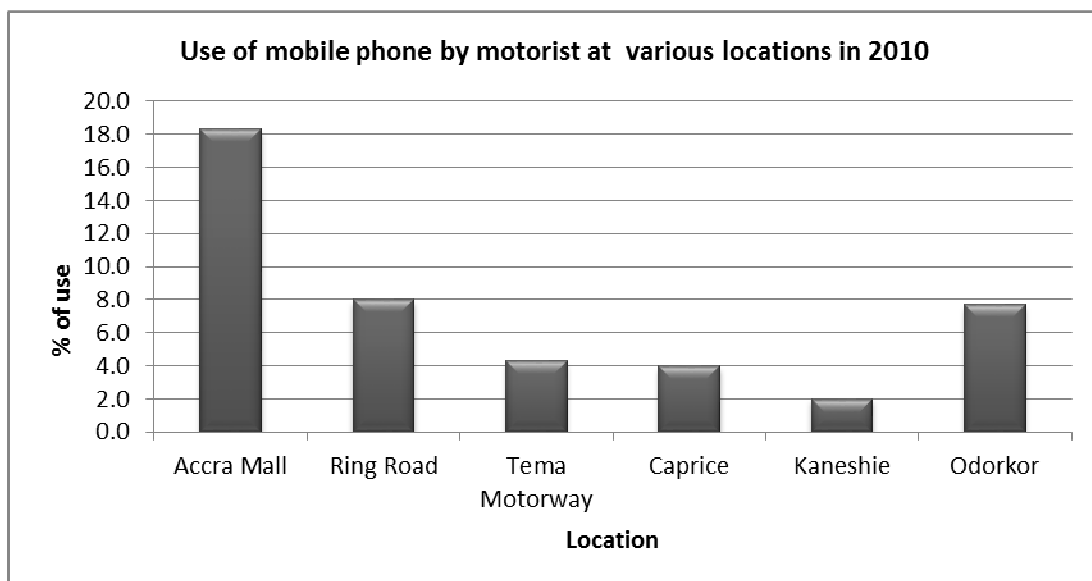
Figure 3. Composite analysis of mobile phone use in regards to *gender* and *location*



We shall now summarize the year on year use of mobile phone by drivers at various locations.

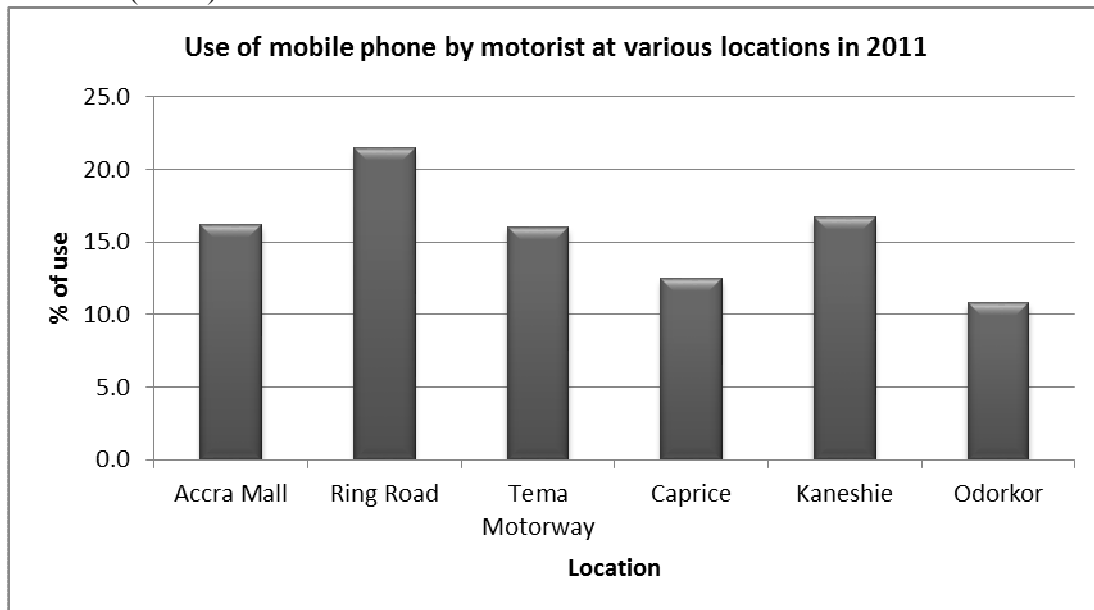
2010

Out of the four years of the study, 2010 was the year that had the least proportion of mobile phone by drivers. The daily average usage among drivers in 2010 was 4.4%, that is, at least 1 in 25 drivers. Of the six locations, Ring Road recorded the highest use (6.4%) and Accra Mall recorded the lowest use (3.2%). Among males, (4.1%) that is, at least, 1 in 25 drivers used mobile phones. Among women, the figure rises to (7.1%) which is 1 in 14 drivers, implying that there is a significant gender difference in phone use on the Accra Mall Road. Among private vehicles, Saloon cars (6.2%) and 4x4/SUVs (6.2%) were the most users of mobile phones. The use among commercial vehicles was lower, Taxi (3.0%) and Trotró Trucks & Buses (3.0%).



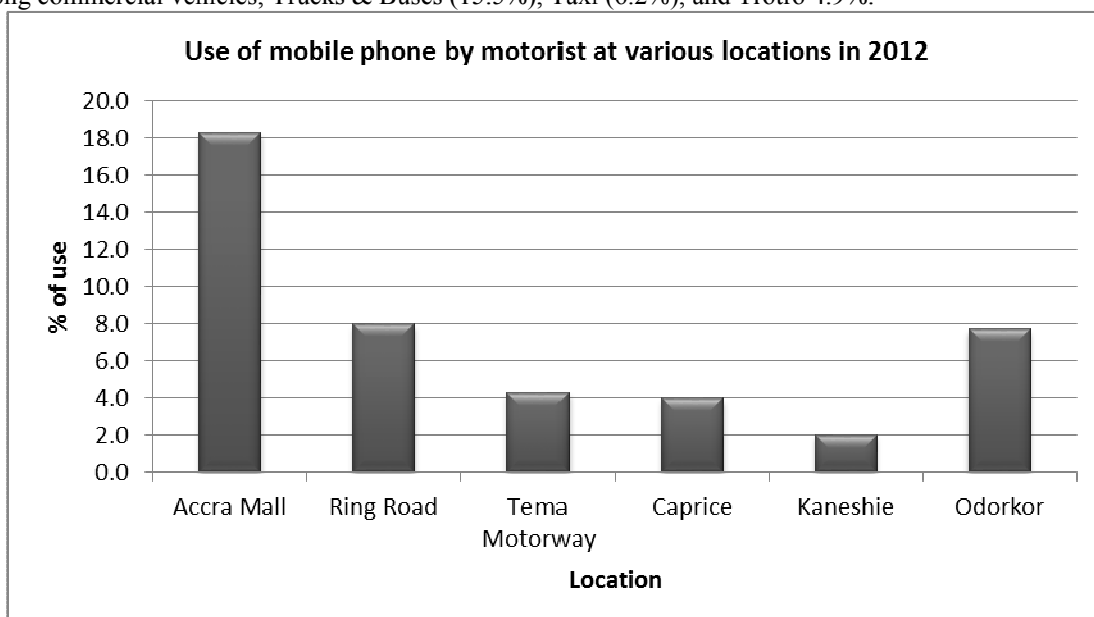
2011

2011 recorded high increase in mobile phone use by drivers in all the locations compared to the previous year. In total, average daily use of mobile phone by drivers jumped from 4.4% in 2010 to 15.5% in 2011. This means that in 2011 the use of mobile phone in Accra has risen from 1 in 25 drivers in 2010 to almost 1 in every 6 drivers in Accra. This represents about 252.3% increase in mobile phone use. Among the six locations, Kaneshie recorded the highest use (16.7%). However, other locations also recorded high levels of usage: Accra Mall (16.2%), Ring Road (21%), Tema Motorway (16.0%), Odorkor (15.5%). The proportion of use among women (18.1%) was still higher than men (15.1%). Usage among drivers of private vehicles continue to be higher than commercial vehicles: Saloon cars recorded 19.4%, almost 1 in 5 drivers and 4x4/SUVs (20.3%), at least 1 in 5 drivers. Use among various categories of commercial vehicles were significantly lower: Taxi (9.0%) and Troto (10.3%) Trucks & Buses (11.9%).



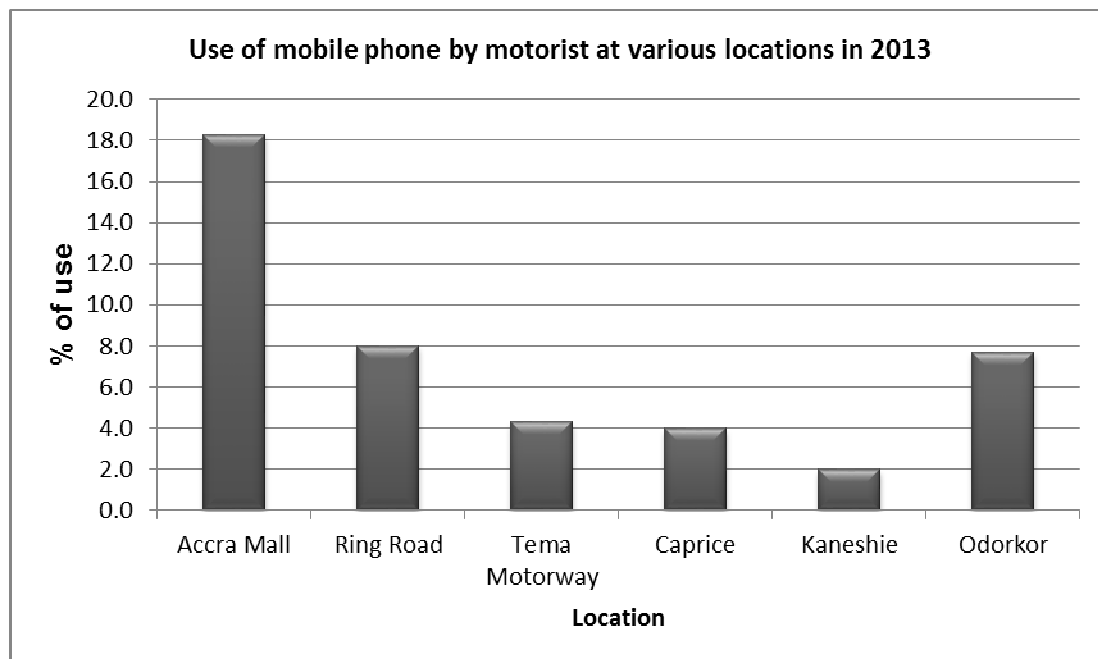
2012

In 2012, use of mobile phones among drivers continued to remain high. The daily average use of mobile phone by drivers was 14.3%, closely matching 2011 levels of 15.5%; 1 in 6 drivers in 2011 against 1 in 7 drivers in 2012. Use remained high in all the six locations. Odorkor and Kaneshie roads recorded the highest use of 18.7% and 18.6% respectively. For the first time, the proportion of use among men (14.5%) topped use among women (13.1%). Usage among Private vehicles continued to remain high: Saloon (19.9%) and 4x4/SUVs (15.4%). Among commercial vehicles, Trucks & Buses (15.5%), Taxi (6.2%), and Troto 4.9%.



2013

There was a significant reduction in average daily mobile phone use by drivers in 2013 compared to the two previous years. The reasons are yet to be investigated but average daily figures dropped from 14.3% in 2012 to 7.5%. This represents a reduction of about 47.5%. Statistically, this means that almost half of drivers who used mobile in 2012 no longer used it in 2013. Accra Mall was the only place where the use of mobile phone continued to remain high (18.3%). Besides Accra Mall, all other locations recorded significant reduction in mobile phone use among drivers. Along the Ring Road usage was 8%, compared to 16.1% in 2012, a drop of 50.3%. Tema Motorway also reduced from 13.9% in 2012 to 4.3% in 2013, a drop of 69.0%. Kaneshie recorded the biggest shift in usage from the previous year: from 18.6% to 2.0%. Among the sexes, Females (8.6%) regained the position as topmost users over males (7.3%). Private vehicles however continued to dominate as the most users with 4x4/SUVs (14.1%) and Saloon (10.4%). Trotro drivers continue to be the least users, recording 1.8% with Taxi and Trucks & Buses recording 5.5% and 2.2% respectively.



4. Conclusion

Using a mobile phone while driving has been shown to have a number of detrimental effects on driving behaviour. By using mobile phone, drivers are not only physically distracted by phoning and driving simultaneously, but they are also cognitively distracted by having to divide their attention between the conversation they are involved in and tasks relating to driving. Studies suggest that the use of mobile phones – regardless of whether hand-held or hands-free – while driving, leads to an increased crash rate compared to when a driver does not use a mobile phone. This study provides new information on the prevalence of the use of mobile phone by motorist in the Accra metropolis. This study used survey to examine differences in usage on different roads, among sexes and among different categories of vehicles. The results suggest that compared to other countries the usage among drivers in the metropolis rank very high. It can be seen that although the legislation outlawing the use of mobile phone by motorist has had some impact the level of use continue to remain high. It is therefore important that the government explores other avenues in order to bring down the level of use or eliminate it completely.

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