



Motorcycle Riders' Preparedness on Road Safety: A Case of Eldoret Town, Kenya

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Abstract

Transport including motorcycle transport is a significant component in development and it bears the cost of the social, monetary and political communication that many people underestimate. However, the numbers of accidents associated with commercial motorcycles giving an impression of spiraling beyond control. Therefore, the purpose of the study was to examine how prepared the motorcycle industry is in relation to ensuring safety needs are adhered to in regard to the prevalence of the many accidents related to motorbikes motorcycle riders in Eldoret Town, Kenya. The specific objectives are to evaluate the influence of the training level undertaken by motorcycle operators on road safety, to establish the influence of age limit and period of experience of motorcycle riders on road safety and to assess the influence of government policies and regulations undertaken by motorcycle riders on road safety in Eldoret town. To achieve its objectives, the study utilized the descriptive survey research design. The target population was 1,200 registered bodaboda operators or riders. A sample size of 95 riders was used. Primary data was collected using a validated questionnaire and interview schedules. Data obtained was analyzed and results presented in descriptive statistics such as means, percentages and standard deviation. It is hoped that recommendations derived from the results of this study will enable stakeholders in the industry to understand the key critical success factors needed for a sustainable competitive advantage thus contributing to organizational success.

Key terms: Preparedness; Road Safety

Introduction

Quick development and remarkable spread of motorbikes has been witnessed as a common transport means worldwide. Starkey (2016) argues that in most of the countries in the world, the largest percentage of the people on the roads now use motorbikes. Globally, utilization of motorbikes as transport means started in the 1860s by Pierre Michaux in Paris. Though, Georgano (2002) noted that the evolution to powered two wheelers later came up in other European countries after which it moved to the United States of America. Further, looking at it in a global view, motorcycle use is the commonest means of powered transport. For example, in Taiwan, per ten thousand persons, the number of automobiles is about two thousand five hundred while the number of motorcycles is about five thousand. On the other hand, the use of motorcycles is remarkably high in Vietnam because of the lack of adequate public transport and

the fact that income levels are low which put motor vehicles at an unaffordable level for many. Hence motorized traffic consists of majorly motorbikes.

According to Nkede (2012), the motorbike markets that are the biggest in the world dominate Asia and that is: Vietnam, China, India and Indonesia. The last few decades have witnessed an increase in popularity of motorbike use in other areas. Nkede adds that the connection to the increase is increasing fuel prices and congestion in urban centers. In Vietnam as noted by Lin et al. (2013), the numbers are high because of lack of a sound public means of transport coupled by the prevalent low-income levels. The other reason is the easy and cheap sources of finances to acquire and operate the motorbikes. These sources include individual and group savings, merry-go-round groups, Sacco's and affordable loans from financial institutions like banks.

According to Yang et al. (2008) in motorcycle accidents in China, the study noted that China as a country has the largest number when it comes to ownership of motorcycles in the world with sales and the production levels being over 20million. Therefore, it can be said that motorcycles are important in enhancing development of the economy and ease transportation of people from one part to another part in China. One of the key reasons as noted by Yang et al (2008) is the fact that the sector is categorized as an informal one as characterized by illiteracy among the people who operate it. They have minimum training and lack professionalism in handling the operations of this sector. But the study noted that with the rapid increase of motorcycles; this has led to a high increase of incidences of road traffic crashes. Hu et al. (2010) state that the increase in motorcycles has been attributed to unemployment, ease in registration, cheap prices of the bikes, and ease in training the riders. In curbing the rapid cases of accidents, relevant departments are taking preventive measures to reduce the accidents through training the riders, improving the traffic status and establishing monitoring of damage system (Hu, et al., 2010).

In most of the parts of sub-Saharan Africa, growth of motorbikes as a means of transport has largely been driven by the need to access remote areas with ease in an affordable manner. According to Kumar (2011), unlike the East and Southern Asian cities, the ownership and utilization of motorcycles as a personal means of movement is not much pronounced in the Sub-Saharan cities. Still, recent years have witnessed a tremendous increase in utilization of motorbikes as a means of transporting people and goods. Whereas the motorcycle means of transport has offered certain pros such as ease flexibility, travelling on poor roads, and ability to quickly respond to demand, the public motorcycle service exponential growth has resulted to problems like road accidents. Other cons as noted by Olubomehin, (2012) revolve around among others air pollution in the neighborhoods.

According to Dinye & Ahmed, (2016) who conducted a study in Northern Ghana, the prevalence of motorcycle ownership comes with both challenges and opportunities to improve livelihood. In central and west of Africa for instance, it was not until 1980s that taxis which comprised of motorbike came about in Cameroon and other countries like Nigeria. In other countries like Benin, it's the bicycle taxi evolved to use of motorbikes. Agossou in (2004) notes that 'Okada' in Nigeria is a name that refers to commercial motorcycles being the commonest way of transport in Nigeria. Benin's transport on the other hand was done by road was by bicycle or motorcycle called 'kèkèkannan'. According to Howe & Mander, (2004), in the parts of East Africa, Uganda and Kenya came up with the 'boda-boda' during the 1960 which are now part of the African bicycle or motorcycle. In Kenya and Uganda, the motorcycles adopted 'boda-boda' as its name as well which is a name interchangeably used with the name 'piki-piki'.

The market for motorcycles in Kenya is rapidly expanding with registration rising from 2084 units in the year 2003 to 16,293 in the year 2007 then to 51,412 in in the year 2008 (GOK, 2009).

According to Sisimwo et al. (2014) hardly a day passes without Kenya's local newspapers having a story or letters related to the industry. The bodaboda transport has rapidly spread starting from western Kenya to cover the rest of the country including the town of Eldoret in Kenya which is one of the towns with an increasing number of motorcycle transport persons engaged in the industry. According to the National Crime Research Centre (2018), the most prevalent crimes related to bodaboda result to deaths through risky riding among other factors. However, medical information within Eldoret town show high incidents of *bodaboda* casualties that are traffic related in surgical wards within the Uasin Gishu County. Therefore, seemingly there are statistics that are accurate on training and safety measures that are undertaken by *bodaboda* operators for users such as researchers in order to create awareness policy related interventions. This study therefore is an attempt to address preparedness for safety issues revolving around *bodaboda* industry in the Eldoret town.

Methodology

This study was based on the descriptive survey research design. This investigation was performed within the town of Eldoret which is a key town in Rift valley region of Kenya. Stratified sampling was utilized in selection of the 95 boda boda riders who were involved in the study. Data was obtained by use of questionnaires.

Results

This section provides the results of the study basing on the study objectives.

Training level on road safety

The respondents were asked on the trainings they have undertaken relating to road safety. Table 1 shows the study results.

Table 1: Training level on road safety

Course/training	Yes	No	SUM
Basic motorcycle handling	76(80%)	19(20%)	95
Maintenance skills	59(62.1%)	36(37.9%)	95
Riding in traffic	65(68.4%)	30(31.6%)	95
Curve and corner maneuvers	56(58.9%)	39(41%)	95
First aid skills	60(63.2%)	35(36.8%)	95
Motorcycle as a business	75(78.9%)	20(21.1%)	95

The study results show that majority of the respondents had undergone Basic motorcycle handling, Maintenance skills, riding in traffic, Curve and corner maneuvers, first aid skills and motorcycle as a business skill as shown by 76(80%), 59(62.1%), 65(68.4%), 56(58.9%), 60(63.2%) and 75(78.9%) respectively. The training of motorcycle as a business had been conducted by their respective Sacco's. The study results disagree with Luchidio et al. (2013) who found out that majority of the operators were found to have received informal training.

A strong relationship was found to exist between the places of training and accident causes. Many of the accidents which were as a result of careless driving were linked to riders who acquired skills from other people. On the contrary, those that trained from driving schools had less contribution. It's also important to note that many of the boda boda operators that defied traffic rules were those that did not attend formal training in driving schools.

Period of experience of motorcycle riders

The researcher further sought to know the period of experience of motorcycle riders. Figure 1 presents the study results.

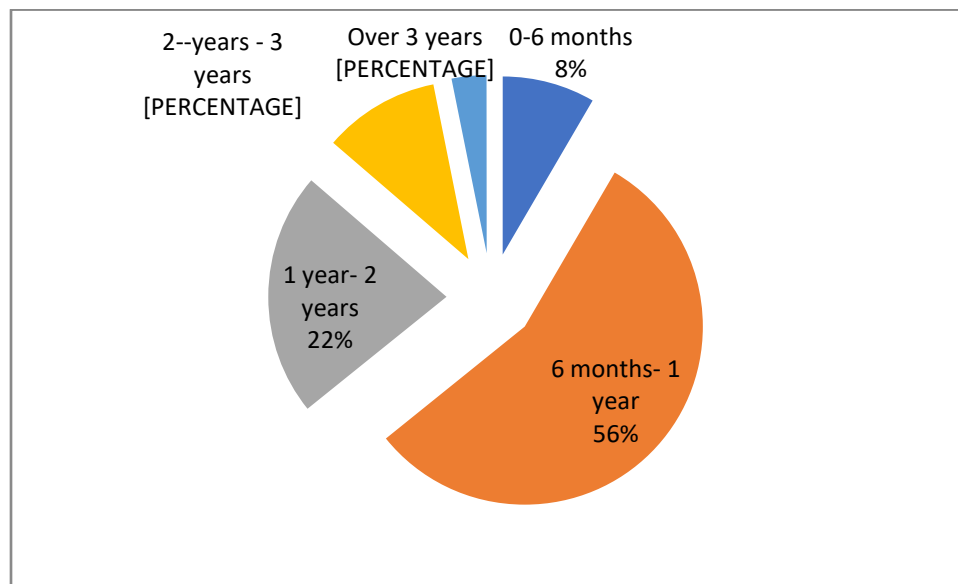


Figure 1: Period of experience of motorcycle riders

Figure 1 shows that 8(8.4%) had experience of 0 to 6 months, 53(55.8%) of respondents had experience 6 months to one year, 21(22.1%) of respondents had experience of 1-2 years, 10(10.5%) of respondents had experience of 2-3years and 3(3%) of the respondent had experience of over 3 years. (APTA 2002) who found out that the reduction in mishap inclusion is generally credited to expanding expertise with expanding experience, yet the degree to which driving aptitude profits by experience is by all accounts a more intricate issue than it initially shows up, associating with sexual orientation and driving style.

Government policies and regulations on road safety

The researcher further sought to know the extent of agreement on government policies and the safety of motorcycle safety in Eldoret town. Using a Likert scale which ranging from 1 -5 where 1= Not at all; 2 = Little Extent; 3= Moderate Extent; 4= Large Extent and 5= Very Large. Table 2 presents the study results.

Table 2: Government policies and regulations on road safety

		Very Large	Large Extent	Moderate Extent	Little Extent	Not at all	Mean	Std. dev	mode
Government policies to prevent accidents has led to the safety of the riders	F	32	41	13	2	7	4.04	1.06	
	%	33.7	43.1	13.7	2.1	7.4			
Strict traffic laws make the sector safer for riders	F	19	63	2	4	7	3.88	1.03	4
	%	20	66.3	2.1	4.2	7.4			
Traffic laws that ensure riders operate in a specific area increases safety of the riders	F	14	61	10	2	8	3.75	1.02	4
	%	14.7	64.2	10.5	2.1	8.4			
Transport regulations ensure that riders are in SACCOs which monitors their behavior has led to enhanced safety of the riders	F	8	25	49	8	5	3.64	1.14	4
	%	8.4	26.3	51.6	8.4	5.3			
The transport sector regulation on compulsory training of riders has made the sector safe	F	28	59	2	2	4	4.11	0.88	4
	%	29.4	62.1	2.1	2.1	4.2			
All operators must have licensing which is a requirement as it helps regulate the sector's safety	F	23	60	1	6	5	3.95	0.99	4
	%	24.2	63.2	1.1	6.3	5.3			
Insurance policies to all motorcycles operators as a safety measures leads to enhanced safety of the riders	F	14	61	10	2	8	3.75	1.02	4
	%	14.7	64.3	10.5	2.1	8.4			
Wearing safety gear while riding the bikes ensures they are safe, making other youths join the sector	F	17	52	9	9	8	3.64	1.14	4
	%	17.9	54.7	9.5	9.5	8.4			
Self-regulation for each area and route has made the sector safe	F	60	15	13	3	7	3.35	1.08	4
	%	63.2	15.7	13.9	3.2	7.3			

Table 2 indicates that 32(33.7%) of the respondents agreed to a very large extent, 41(43.1%) of the respondents agreed to a large extent, 13(13.7%) of the respondents agreed to a moderate extent, 2(2.1%) of the respondents agreed to a little extent and 7(7.4%) of the respondents did not agree at all that government policies to prevent accidents has led to the safety of the riders. Also, 19(20%) of the respondents agreed to a very large extent, 63(66.3%) of the respondents agreed to a large extent, 2(2.1%) of the respondents agreed to a moderate extent, 4(4.2%) of the respondents agreed to a little extent and 7(7.4%) of the respondents did not agree at all that strict traffic laws make the sector safer for riders. Another 14(14.7%) of the respondents agreed to a very large extent, 61(64.3%) of the respondents agreed to a large extent, 10(10.5%) of the respondents agreed to a moderate extent, 2(2.1%) of the respondents agreed to a little extent and 8(8.4%) of the respondents did not agree at all that traffic laws that ensure riders operate in a specific area increases safety of the sector.

Further, 8(8.4%) of the respondents agreed to a very large extent, 25(26.3%) of the respondents agreed to a large extent, 49 (51.5%) of the respondents agreed to a moderate extent, 8(8.4%) of the respondents agreed to a little extent and 5(5.3%) of the respondents did not agree at all that transport regulations ensure that riders are in SACCOs which monitors their behavior has led to enhanced safety of the riders. Another, 28(29.4%) of the respondents agreed to a very large extent, 59(62.1%) of the respondents agreed to a large extent, 2(2.1%) of the respondents agreed to a moderate extent, 2(2.1%) of the respondents agreed to a little extent and 4(4.2%) of the respondents did not agree at all that the transport sector regulation on compulsory training of riders has made the sector safe.

Also, 23(24.2%) of the respondents agreed to a very large extent, 60(63.2%) of the respondents agreed to a large extent, 1(1.1%) of the respondents agreed to a moderate extent, 6(6.3%) of the respondents agreed to a little extent and 5(5.3%) of the respondents did not agree that all operators must have licensing which is a requirement as it helps regulate the Sector's safety. Furthermore, 14(14.7%) of the respondents agreed to a very large extent, 61(64.2%) of the respondents agreed to a large extent, 10(10.5%) of the respondents agreed to a moderate extent, 2(2.1%) of the respondents agreed to a little extent and 8(8.4%) of the respondents did not agree at all that insurance policies to all motorcycles operators as a safety measures leads to enhanced safety of the riders

Furthermore, 17(17.9%) of the respondents agreed to a very large extent, 52(54.7%) of the respondents agreed to a large extent, 9(9.5%) of the respondents agreed to a moderate extent, 9(9.5%) of the respondents agreed to a little extent and 8(8.4%) of the respondents did not agree at all that wearing safety gear while riding the bikes ensures they are safe, making other youths join the sector. Finally, 60(63.2%) of the respondents agreed to a very large extent, 15(15.7%) of the respondents agreed to a large extent, 13(13.9%) of the respondents agreed to a moderate extent, 3(3.2%) of the respondents agreed to a little extent and 7(7.3%) of the respondents did not agree at all that self-regulation for each area and route has made the sector safe.

The study also shows that government policies to prevent accidents have led to the safety of the riders. Also, strict traffic laws make the sector safer for riders. Further, transport regulations ensure that riders are in SACCOs which monitors their behavior has led to enhanced safety of the riders. Also, all insurance policies to all motorcycles operators as a safety measures leads to enhanced safety of the riders. Furthermore, wearing safety gear while riding the bikes ensures they are safe, making other youths join the sector.

Finally, all self-regulation for each area and route has made the sector safe. The study results concur with Olubomehin (2012) who asserts that government rules and regulations that govern and control both commercial and private use of intermediate transport modes. Urban transport policies demand that motorbikes must be enrolled under the traffic rules and guidelines. Requirements include among others driving license as well as certificates of good conduct. They must also provide their customers with protective gear that includes a helmet and reflective vests.

Extent they think government policies and regulations affect the safety of motorcycle riders

The study finally sought to know the extent they think government policies and regulations affect the safety of motorcycle riders. Table 3 presents the study results

Table 3: Extent they think government policies and regulations affect the safety of riders

Frequency	Percentage
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Very large Extent	28	29.5
Large Extent	29	30.5
Moderate Extent	11	11.6
Little Extent	17	17.9
Not at all	10	10.5
Total	95	100.0

Table 3 shows that 28(29.5%) of the respondents agreed to a very large extent, 29(30.5%) of the respondents agreed to a large extent, 11(11.6%) of the respondents agreed to a moderate extent, 17(17.6%) of the respondents agreed to a little extent and 10(10.5%) of the respondents did not agree that government policies and regulations affect the safety of motorcycle riders. The study results concur with Sisimwo et al, (2014) who assert that bike mishaps have been an ignored issue in Kenya, thus the study mentions there is need for both the government and relevant stakeholders to find ways to regulate and prevent such scenarios from occurring.

Conclusions

The study concluded that the respondents had been trained on basic motorcycle handling, maintenance skills, riding in traffic, curve and corner maneuver, first aid skills motorcycle as a business. Further, the respondents were knowledgeable on the basic first aid and riding skills. It was also concluded that respondents were above the minimum age limit of 18 years of driving a motorcycle and had experience of six (6) months to one year this implies that majority of the riders had complied with the National Traffic and Services Act (NTSA) rules and understood the traffic rules well. Further, the study concluded that government policies to prevent accidents have led to the safety of the riders. Also, strict traffic laws make the sector safer for riders. Further, transport regulations ensure that riders are in SACCOs which monitors their behavior has led to enhanced safety of the riders. Additionally, all insurance policies to all motorcycles operators as a safety measures leads to enhanced safety of the riders. Furthermore, wearing safety gear while riding the bikes ensures they are safe, making other youths join the sector. Finally, all self-regulation for each area and route has made the sector safe.

Recommendations

The study recommends that there is need for continuous enhancement of operators to go to driving schools and also get training on road safety. Further, the county should provide continuous training on road safety awareness programs. This will provide knowledge and change perceptions on road safety practices in Eldoret Town. In addition, the county Government should continue enforcing the set policies and regulations so as to ensure the safety of the motorcycle riders at all times.

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