Distribution of Safe Helmets In Greater Kampala – Uganda

Compiled by Safe Way Right Way, on behalf of ROSACU

ROSACU

Road Safety Advocacy Coalition Uganda

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Abbreviations and Acronyms

ECE — Economic Commission for Europe

GRSP — Global Road Safety Partnership

SWRW — Safe Way Right Way

UNBS — Uganda National Bureau of Standards

Executive Summary

Safe Way Right Way (SWRW) commissioned a Market Analysis Study aimed at understanding the current state of helmet distribution and usage in Kampala. The study would further guide SWRW in supporting Uganda National Bureau of Standards (UNBS) and other key stakeholders in the review and update of the 2011 UNBS helmet standards, and the adaptation of the updated standards into the motorcycle and tricycle regulations. The study was carried out by Soland Associated Consults Limited in collaboration with Tom Courtright from November 2021 to January, 2022.

A review of the state of helmets established highest ownership among the employed riders (93.3%), followed by boda boda riders (91.4%).[1] Despite the high percentage of ownership, 14% of motorcycle riders were observed to be carrying instead of wearing their helmets, and a further 17% were not observed to have their helmets with them at all. The main reason for not wearing helmets all the time was discomfort and overheating. Ownership among passengers remains extremely low at only 5.8%. The half face helmet is most popular among the boda riders (61.9%).

The market has only a few distributors but many retailers across the country who have been in business for anywhere from from 2 months to 17 years. All distributors sell both motorcycles and helmets, while most retailers sell helmets and other spare parts but not motorcycles. Distributors include Verma Co, Dura, Honda Uganda, Toyota Uganda, Haojue and Yuvraj. Between 2018 and 2021, approximately 2,858,170 helmets were imported in the country according to the Uganda Revenue Authority (URA). A significant increase was observed from 2019 to 2020 with an increase from 658,722 to 841,597 respectively. However, the numbers imported reduced to 751,923 in 2021. Verma Co is the biggest distributor averaging 10,000 helmets per month. In 2020, retailers sold between 100 to 1000 helmets.

Majority of the distributors indicated ignorance of the recommended standards for motorcycle helmets. This is further evidenced by a lack of or limited enforcement to ensure recommended standards are imported and sold in the country. Riders, riders passengers and distributors alike revealed essentially no knowledge of international standards for helmets. There is a preference for half face helmets as compared to other helmet designs.

Almost half of the helmets on the road in Kampala have defects and the majority of the defects were reported among the half-shell helmets with 81% of the interviewed users reporting at least one defect while half-face helmets recorded 57%. Users for each of these are mainly riders under 30 years of age ranking 62% and 42% respectively.

The 2016 Traffic and Road Safety (Motorcycles) Regulations state that the penalty for passengers not wearing a helmet is UGX 40,000, the same as for motorcycle riders. However, in neither that legislation, nor the original 2004 Traffic and Road Safety (Motorcycles) Regulations are there any stipulations requiring riders to carry helmets for passengers. This constitutes a large loophole, as passengers are by law reliant on riders who have no such motivation. Only around one in twenty passengers in Kampala own and regularly use helmets, and these were acquired freely, however, for boda riders around 22% of helmets owned came with the motorcycle at the point-of-sale, rising to 28% for commercial riders.

Usage of helmets by those who own helmets is relatively high for riders, 80% of whom report wearing their helmets either most of the time or always. The observational study, furthermore, found that 69% of all motorcycle riders on the road were wearing helmets, though a further 14% had helmets on them that they

[1] The term “rider” and “driver” are interchangeable. We chose to use the term “rider” as it is used more commonly by figures in the boda boda industry and by the riders themselves and is used in the 2004 Traffic and Road Safety (Motorcycles) Regulation. The 2016 amendment changed to using “driver”, but this has not been widely adopted in the industry.

were not wearing as they moved. The main reason for not wearing helmets all the time was discomfort and overheating.

In conclusion, three potential models for improving both the quality and usage of motorcycle helmets in Kampala were developed from our findings and interviews with industry experts. The models were then compared in terms of their ease of implementation and expected impact. These are;

OPTION 1

of requiring two helmets to be sold with every motorcycle would see modest gains in the number and usage of helmets in the market, it would not make a significant impact on the quality of helmets.

OPTION 2

calling for a policy change to require two helmets sold with every motorcycle, and one of the two helmets would have to be full-face or modular helmets. Additionally, standards requirements on incoming motorcycles would be improved to ensure an international standard such as ECE 22.05 would be met.

OPTION 3

combining the two-helmet sale requirement, new standards, and a public awareness campaign could bring significant improvements to the sector over time, including raising passenger usage by at least 10 times and shifting the market towards full-face and modular helmets.

Of these three models, option 3 was found to be the most resource-intensive approach, but also the most effective and highest-impact approach in increasing overall usage and of standard helmets.

Introduction

Background

Safe Way Right Way (SWRW) is a registered Non-Governmental Organisation, whose mission is to achieve a crash free road network for Uganda. SWRW leverages support from the Government, International Development Agencies and Private Sector Companies to demonstrate best practices and implement road safety interventions along Uganda's economically critical road corridors. SWRW received support from the Global Road Safety Partnerships (GRSP) programme, with the aim of seeking to support the key stakeholders in Uganda to advocate for the definition of a standard for safe helmets for use & distribution and increase public awareness of helmet standards, usage and promote accessibility of safe helmets.

One of the objectives of the project aims at improving accessibility to safe helmets through community sensitization and by the end of the project at least 10,000 riders would be reached directly. To guide implementation of the project, it was found important to first understand the availability and distribution of helmets by brand and quality on the market as well as the riders' and general public's attitudes towards helmet usage.

Soland Associated Consults Limited was commissioned by SWRW to conduct the **Market Analysis study on the Distribution of Safe Helmets in Uganda** with a special focus on Kampala. The study was carried out from November 2021 to January 2022. This report presents the findings from the study based on the objectives and research questions as agreed upon.

Objectives of the market study

The market study aimed at providing information that would;

- Support the Uganda National Bureau of Standards (UNBS) and other key stakeholders in the review and update of the current defined helmet standards (UNBS US-774-2011), and the adaptation of the updated standards into the motorcycle and tricycle regulations, 2016.
- Give both public and private sector stakeholders a clear contextual analysis of the current state of helmets in distribution and make clear recommendations whilst working with both the private and public sector to adapt the recommendations in the review and update of helmet standards and regulations, 2016.
- Map out and document helmet distributors in Kampala Capital City; and a capacity development programme shall be implemented to support distributors understand and adopt to the importation and distribution of helmets that meet the defined standard.

Methodology

The consultants employed a participatory approach collaborating closely with SWRW at every stage of implementation ensuring that latter was regularly updated on the status of implementation as well as getting involved in review and approval of respondents to be interviewed and data collection tools adopted.

The study adopted a cross-sectional design involving a mixed-methods approach to data collection, including desk review, qualitative and quantitative methods. Documents reviewed included the Uganda Traffic Act 1998[2] and all follow up amendments, publications about the boda boda industry and helmet usage in Uganda and globally. Ten key informant interviews were conducted with relevant representatives of government agencies, boda boda associations, and organizations providing motorcycle loan and insurance schemes.[3]

[2] The Traffic and Road Safety (Motorcycles and Motorised Tricycles) Regulations, 2016 No.30. sub section 11(4) and 11(5). Retrieved from http://ugandanlawyer.com/wp-content/uploads/2019/03/Traffic-and-Road-Safety-Motorcycles-and-Motorised.pdf

[3] The loan and insurance schemes make it possible for the riders to obtain a driver's license, provides medical insurance, drivers undergo trainings in first aid, financial management, customer service and able to access a high quality helmet. Retrieved from https://www.lendahand.com/en-EU/blog/804-lease-to-own-with-tugende-in-uganda

A public attitude survey was conducted with 230 passengers and a similar number of motorcycle riders (commercial, personal or boda boda). This sample size was settled on to have statistical strength as recommended by Kline (2011) under the limited conditions of the study.[i] It is recommended that a minimum sample size of 200 responses is suitable to ascertain any significant variations within a category and also enough to predict outcomes. Both the passengers and motorcycle riders were randomly selected from the street/roads and boda-boda stages. In addition, a market survey with five helmet distributors and 17 retailers was done focusing on brand preference, prices, among other attributes.

Observations were also conducted, focusing on type of helmet being worn by the boda boda riders. We recorded 6,232 observations at 27 sites across Kampala, including a variety of locational types such as major intersections, local highways, and minor side streets.[4] Secondary data was obtained from various sources on the number of helmets being imported in the country from 2018 to 2021. We focused on Kampala and Wakiso districts as these are the largest urban areas in the country, with the highest number of motorcycles.

Data for the public attitude and market surveys was captured digitally using KoBoToolbox, an online tool, and analysed using MS Excel. A contextual analysis was done for key informant interviews data by creating themes based on the responses.

To guide the improvement of access and usage of helmets, three models have been presented focusing on:

Model 1

Changing the policy to require two helmets sold with the motorcycle

Model 2

Two helmets, new standards, or

Model 3

Having two helmets, new standards, and a public awareness campaign. The modelling is based on feedback from key informant interviews about existing policies and enforcement of helmet usage and attitudes from boda boda riders and passengers in regards to wearing helmets.

[4] We were unable to protect against the potential of double-counting, but the statistical strength of the sample size and the nature of observations – counting for 15 minutes all trips in one direction, and then 15 minutes of the other direction – gives us confidence that any potential impact would be negligible.

Limitations and Challenges

The public attitude survey was carried out in Kampala and Wakiso districts. Although boda boda activity is most active (in relation to number of motorcycles, riders, passengers and distribution of helmets), the results do not necessarily provide a statistical inference in the country but an indication of what *might* be expected in other towns or cities in the country. Scattered studies and anecdotal evidence would strongly suggest that helmet usage is much higher in Kampala than in smaller cities and rural areas across Uganda.

The biggest challenge was to obtain data on helmets being stocked by brand, type and recommended standards. Either this data was non-existence amongst the distributors or the respondents purposively refused to provide it, hence, making it unable to answer some of the research questions.

A Review on Usage of Helmets in Uganda

Summary

- Motorcycles are now the most common type of vehicle on the road in Uganda, and riders' high injury rates are best reduced with the usage of quality helmets.
- Among the available types, full face and modular helmets with a chin bar provide the best protection for riders and passengers alike.
- Despite this, only 70% of riders were observed wearing helmets on the road, and the majority of these are half-face helmets, which offer substandard protection against head injuries.[5]

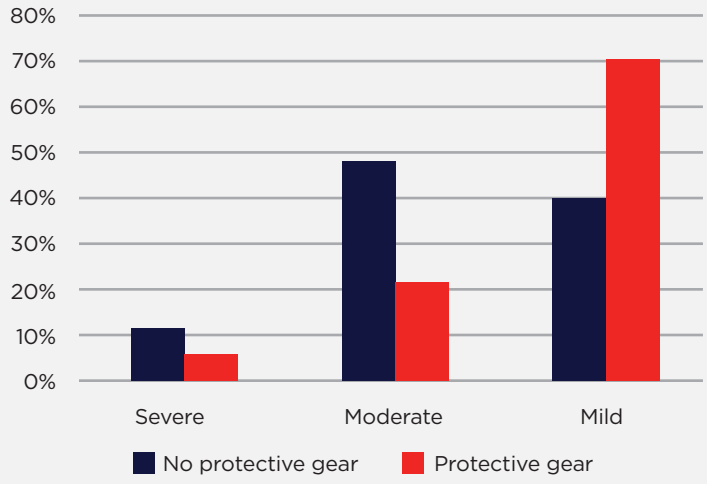
The State of Boda Bodas

Boda bodas (motorcycle-taxis) are the most common form of motor vehicle in Uganda and provide the majority of motorized transportation outside of the capital Kampala. While no definite survey has been undertaken to establish with certainty the number of boda bodas, it is estimated that there are between 100,000 to 200,000 in Kampala alone and up to a million across the country.[ii]

The Need for Safety

Motorcycles are known to be one of the most dangerous means of motorized transportation, due to their combination of highspeed capacity and non-existent protective exoskeleton. In Uganda, trauma is the fifth or sixth highest cause of health burdens, and road accidents account for 48% of all injuries.[iii, 6] While the cost of medical care can vary, serious accidents usually cost in millions of shillings, while a helmet costs only around 40,000 shillings. According to Ssebagala et al (2014)[7], the cost of treating a person with broken bones and limbs as a result of a motorcycle accident averages UGX7,977135 Uganda Shiilings. The economic case alone is very clear.

Figure 1: Severity of Injury as % of Reported Accidents (Kamulegeya et al, 2015)



[5] The 70% statistic is drawn from our observational study. Half-face helmets do not have a chin bar and thus do little to protect the face.

[6] TThe United States Center for Disease Control reports that the use of motorcycle helmets reduces head injury rates by 69%, and deaths by 37%.

[7] Retrieved from https://ucudir.ucu.ac.ug/bitstream/handle/20.500.11951/594/Sebaggala_et%20al_Costs%20Motorcycle%20Accidents%20in%20Uganda_2014.pdf?sequence=1&isAllowed=y#:~:text=The%20results%20show%20that%20motorcycle,victim%20who%20is%20severely%20injured.

Helmet Types

The most common types of motorcycle helmets in Uganda are the half face, full face, modular, and half shell. Critically, full face helmets are the safest category of motorcycle helmet. A review of 32 studies found that full face helmets - including the subcategories of modular, road, and off-road - provide the highest amount of safety. Yet on the roads of Kampala, half face helmets are around five times more common than full face helmets and remain the overwhelming favourite amongst riders. Modular helmets, also known as flip-up helmets liked for their ability to flip up the chin bar, have largely been popularized by SafeBoda.

The State of Helmet Usage in Uganda

Helmet usage has been improving in Uganda, though it remains low, especially for passengers. Furthermore, full face helmets seem to be avoided. When given the choice, SafeBoda riders chose modular helmets over fixed-bar full face helmets, ostensibly for the ability to lift the chin bar and improve ventilation. Feedback from our observational study surveyor indicated that SafeBoda helmets accounted for at least 90% of the modular helmets observed in Kampala.

Figure 2: The four most common helmet types in Kampala.

A study in 2012 found that observed helmet usage was 30.5% among boda boda riders, though 71.1% reported having helmets.[iv] In 2015, a study of motorcycle users involved in accidents found only 18.6% of those involved in traumatic accidents were wearing helmets at the time of the accident, and fewer than 1% of passengers.[v] This is higher than the 13% of boda riders who were reported wearing helmets at the time of the accident in 2011 at the same hospital. Of those involved in traffic-induced injuries, 71% had head injuries. (They also found that there was a reduced likelihood of head injury). For those wearing protective gear, 55.7% had head injuries, which shot up to 74.4% of those who did not wear protective gear. Furthermore, of those wearing protective gear, the severity of head injury was much lower, with only 29% of head injuries being moderate or severe compared to 59% of injuries for those without helmets.

Fortunately, helmet usage has continued to rise in Kampala. A study in 2020 found that ownership had risen to 92.5% among regular riders, and 99% amongst SafeBoda riders.[vi]

Across Uganda

Outside of Kampala, helmet usage is expected to be lower still. A small observational study conducted in the towns of Hoima and Lira found lower helmet usage in Hoima, at around 16%, and much lower still in Lira, at around 1%.[vii] Additionally, in two villages near Luweero town, a study found that only 41% of riders reported owning a helmet, and 25% of riders reported always wearing a helmet.[viii] Any work starting in Kampala should aim to eventually expand to the rest of the country.

Our Findings

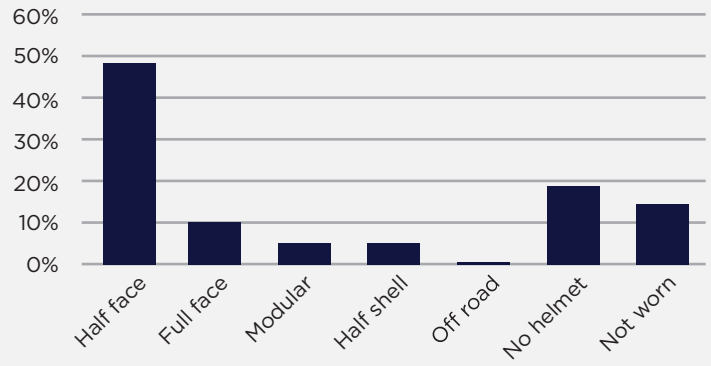
For this particular study, both an in-depth in-person survey as well as an observational study in Kampala to assess the current helmet wearing rates was carried out.

Table 1: Helmet type frequency by motorcycle user type

	Ownership	Full face	Half face	Half shell	Modular
Passengers: Survey	5.8%	50.0%	50.0%	0%	0%
Employed Riders: Survey	93.3%	54.8%	42.8%	0%	2.4%
Boda Riders: Survey	91.4%	13.9%	61.9%	10.4%	12.8%
Motorcycle Riders: Observation	83% (observed carrying)	14.6%	70.8%	7.3%	7.3%

An observational study was carried out to ascertain helmet usage amongst boda riders in Kampala. 6,232 boda riders were observed across 27 sites in Greater Kampala. Self-reporting the type of helmet can suffer from a few biases, including likelihood of stopping to speak to surveyors, or a lack of clarity for respondents whose helmets were not on them at the time of the survey. Thus, for the purposes of describing boda riders' usage and helmet distribution in this report, we will use the observational numbers. For all other purposes, we will rely on the survey.

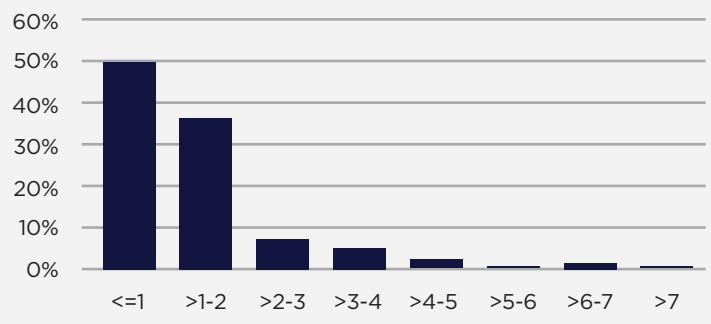
Figure 3: Observed rider helmet usage in Kampala



Helmet Demographics

Helmets expire when either they have suffered a serious defect, such as being cracked, missing an inner shell, or not having a strap, or after five years of use; whichever comes first. This is because glue and other components can degrade over time. Our study found that around 86% of helmets on the road in Kampala are no more than 2 years old[8], meaning a strong majority of helmets are not making it to an expiry date. While we might thus expect the average helmet lifespan to be slightly longer than 2

Figure 4: Age of helmets in Kampala in years

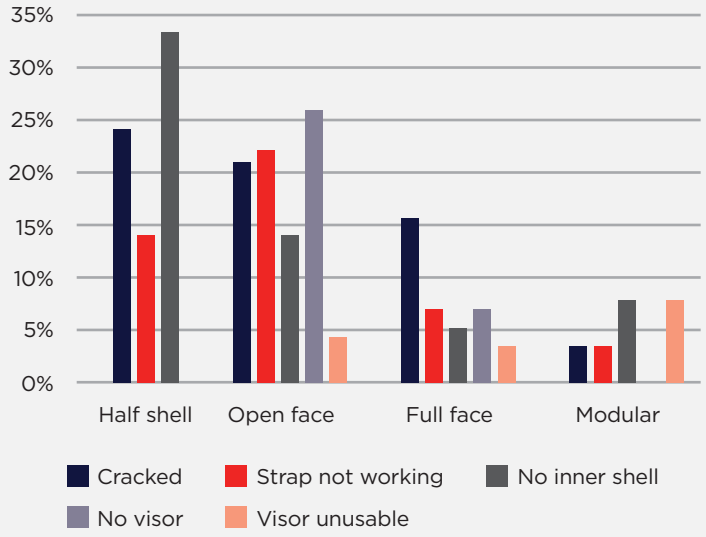


[8] Source: Responses fro interviews conducted with riders

years, we should also recognize that the lockdowns and subsequent inactivity may have artificially extended the lifespan of motorcycle helmets. We thus expect two years to be the average replacement rate.

The median age of full face and half face helmets were both found to be around 12 months old, but half shell helmets were found to be around 18 months old at median age[9]. This is discussed in more detail later on but is likely linked to much higher rates of lifetime defects and rider attitudes amongst half shell helmets rather than half shell helmets being any tougher than others.

Figure 5: Observed rider helmet usage in Kampala



Helmet Defects

Defects were found to be quite common on helmets in Kampala. The most common defects were found to be cracks, missing straps, missing inner shells, and missing or unusable visors. These all have different impacts on usage. Cracked helmets, for example, can sustain less damage in crashes, and should be discarded after a serious crack forms, as they are only designed to take a single major impact. Lacking an inner shell, which is there to cushion the head in case of impact, similarly significantly diminishes the usefulness in a crash. Missing straps reduce the usefulness of helmets in crashes by reducing the likelihood the helmet will still be protecting the head during impact. Missing or unusable visors, on the other hand, can in fact increase the likelihood of crashes. Taken together, around half of the helmets on the road in Kampala have defects that make them unfit for purpose - yet they continue to be deployed by users.

A note on half-shell helmets

Around 7.3% of helmets worn on the road in Kampala were observed to be half-shell helmets. From the survey, the half-shell helmets reported by far the highest defect rate, with 81% reporting at least one defect, compared to 57% of open face helmets and 36% of full-face helmets. Additionally, half-shell helmet owners were found to be younger on average; 62% of half-shell helmet owners were under 30, compared to 42% of open face and 33% of full-face helmet owners respectively.

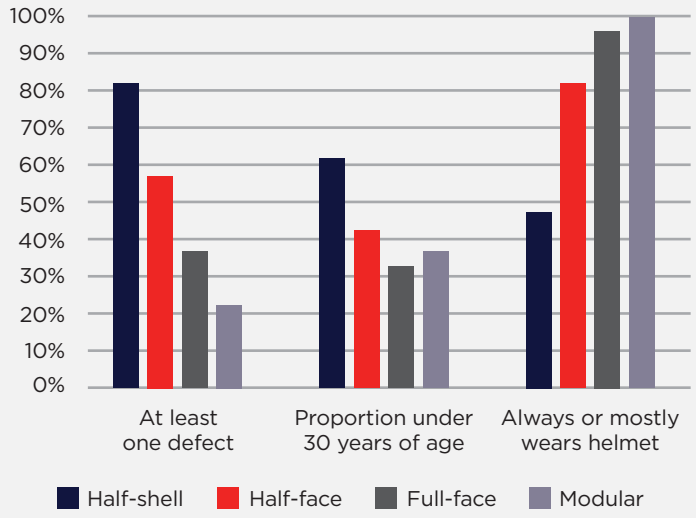
Table 2: Helmet characteristics by helmet owner type

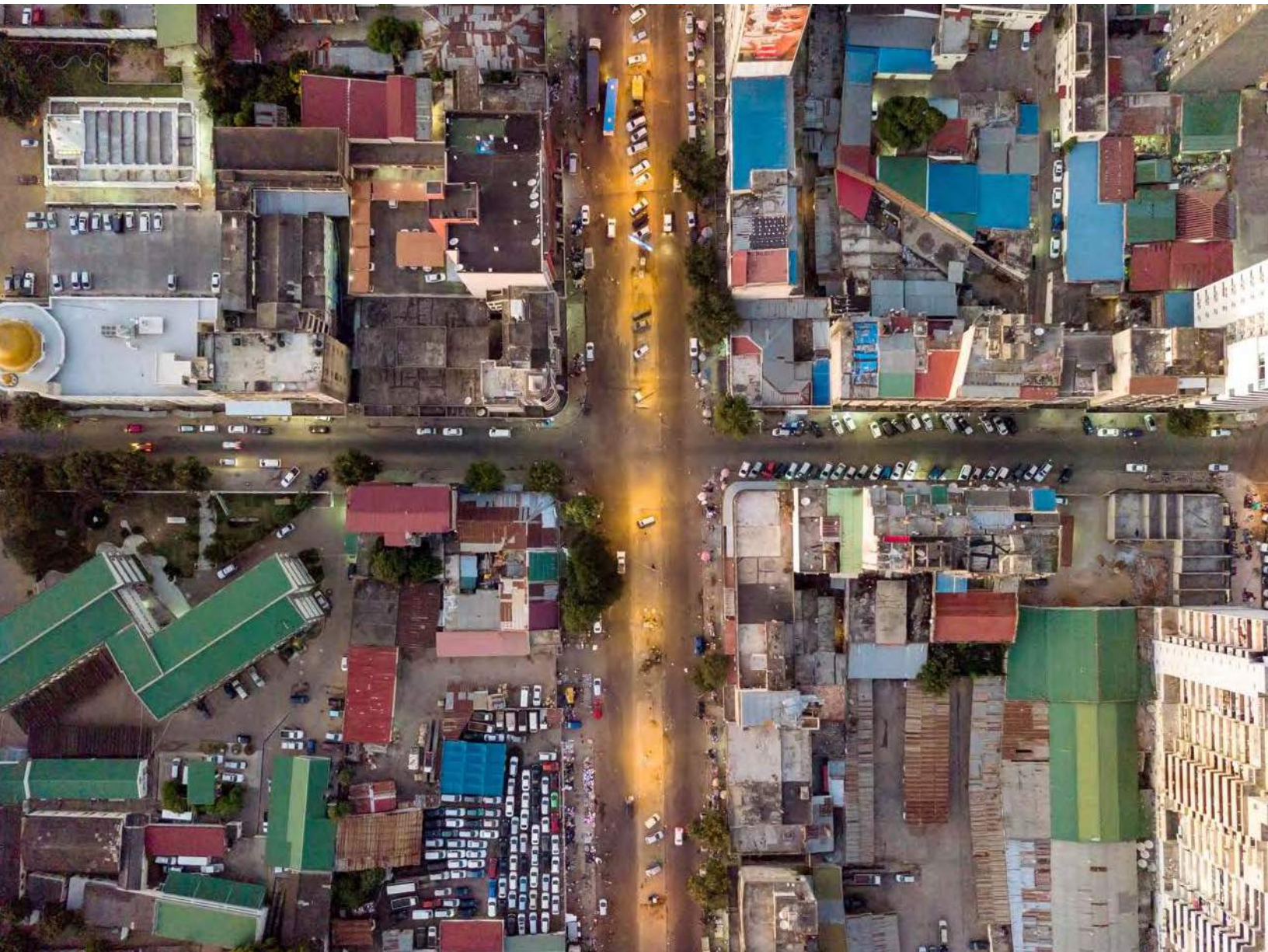
	Half-shell	Half-face	Full-face	Modular
At least one defect	81%	57%	36%	22%
Proportion of owners under 30 years of age	62%	42%	33%	37%
Always or mostly wears helmet	48%	81%	95%	100%
Motorcycle Riders: Observation	83% (observed carrying)	14.6%	70.8%	7.3%

[9] SafeBoda's dominance of modular helmets makes it difficult to draw conclusions about the reason for the age of their modular helmets, which was found to be about 15 months on median.

Taken together, this description of half-shell helmet owners describes half-shell helmet owners as more careless than those who own helmets with better protection. Their primary motivation for wearing a helmet may thus have less to do with the safety that helmets offer, and more to do with avoiding police by fulfilling the basics of the law. The 2016 Traffic and Road Safety Regulations only specify that riders must "wear a crash or safety helmet at all times while driving a motorcycle," but does not specify what qualifies as a crash or safety helmet. Thus, from time to time, motorcycle riders can even be found wearing bicycle helmets or horse jockey helmets.

Figure 6: Helmet owner characteristics





Distribution of Helmets in Uganda

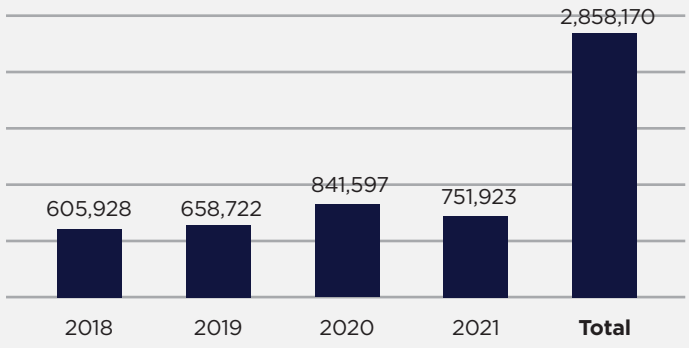
Summary

- The market comprises of few helmet distributors but very many retailers. The distributors are also involved in the sale of motorcycles and respective spare parts. Distributors include Verma Co, Dura, Honda Uganda, Toyota Uganda, Haojue and Yuvraj.
- Between 2018 and 2021, approximately 2,858,170 helmets were imported in the country. A significant increase was observed from 2019 to 2020 with an increase from 658,722 to 841,597 respectively. However, the numbers imported reduced to 751,923 in 2021, possibly due to the Covid-19 lockdown.
- Verma Co is the biggest distributor averaging 10,000 helmets per month. In 2020, retailers sold between 100 to 1000 helmets.
- Majority of the distributors indicated ignorance of the recommended standards for motorcycle helmets. This is further evidence by lack of or limited enforcement to ensure recommended standards are imported and sold in the country.
- Preference is for half face helmets as compared to other helmet designs.

Distributors in Uganda

Before data collection commenced, the research team and SWRW identified the main distributors of motorcycle helmets in Uganda. These included Toyota Uganda Limited, Yuvraj, Verma Co, Top Bikes and Gomet Auto Parts Ltd. However, during the market survey, it was realised that there are other distributors like Honda, Haojue, and Dura Motors. In addition, motorcycle riders also access helmets from organisations that provide loans and insurance services like Safeboda and Tugende. Among the distributors and retailers talked to, a majority of these have been in the helmet distribution business for at least 3 years; while Dura Motors, Honda and Verma Co have been in business the longest with over 10 years' experience.

Figure 7: Helmet imports into Uganda



Market distribution of helmets

Quantities imported and sold

Data compiled from different secondary sources reveals that about 2,858,170 helmets were imported in Uganda from

2018 to 2021 as per the figure to the right.

From figure 7, it is observed that there was significant increase in the number of helmets imported in the country between 2019 and 2021. This increase provides a proxy indication of the growth in the number of motorcycle riders in the country and the increased contribution of the boda boda sector in the transportation sector in Uganda.

Distributors like Verma Co, Dura Motors, Honda and Haojue distribute helmets as an accessory or part of the motorcycles sold. Verma Co reported the highest number of helmets distributed/sold with a monthly average of 10,000. Dura Motors and Honda reported annual sales of a minimum of 10,000 helmets. In the year 2020, retailers' sales ranged from 100 to 1,000 helmets. The Covid-19 pandemic and lockdown severely affected sales as restrictions limited boda-bodas from operating as usual and thus reducing demand.

> "Covid-19 affected the businesses of helmets because people no longer buy helmets so much unless there is pressure from traffic police on the road."
>
> **-Nalugo Spare Parts, Katwe**
>
> "Obviously Covid-19 affected our business because movement was limited and business slowed down."
>
> **-Dura Motors, Ndeeba**

Helmet Standards

The globally recommended standard is ECE 22.05 while information from the Uganda National Bureau of Standards (UNBS) reveals that it isrecognised and should be enforced in Uganda is US-774-2011 (Protective helmets for motorcyclists). Results from the market survey reveal that only two in 22 distributors and retailers surveyed are aware of the ECE 22.05 standard for helmets and stated that certified helmets are quite expensive. Owing to this, the two distributors no longer stock them because the demand was low. Whereas this is the case, distributors mentioned that they endeavour to import high quality helmets regardless of certification.

The gap in knowledge of the recommended standards can be attributed to the fact there is limited sensitization of the different stakeholders of the helmet requirements. This was acknowledged by the UNBS given that creating awareness about standards of other products used by the majority of the population e.g. foods and beverages, is prioritised. Additionally, though there has been some limited enforcement by the police to ensure motorcyclists wear helmets, the former are also not fully aware of the required or recommended standards.

Helmet brands and preference

Nearly all distributors and retailers that positively responded to the survey questions reported to import at least two brands of helmets and many of these are mainly importing Crocodile (full face), followed by D&K (full face), and Verma Co (half face), which is a brand produced and distributed solely by Verma. Other brands being imported in minimal quantities include; Beyond (half face), Boda Kada (half face), Boxer (full face), Care (full & half face), Haojue (full & half face), IBK (full & half face), Jadumu (full face), Radin (half face), Safe (full face), Studds (full face) and Super (half face). Crocodile (full face), D&K (full face) and Verma Co (half face) are the most sold brands. These are closely followed by Care, Safe, and Beyond. Of these brands, Studds is acknowledged to be of the higher quality and long lasting compared to others.

Almost all distributors surveyed consider the "Half face" helmets to be the most preferred by the users because they choose "Comfort" over cost of the helmet. This gives Verma Co (Half face) a competitive advantage among the three top imported and sold brand in the market. Attractiveness and weight of the helmet did not feature at all among the reasons for consideration.

Perception of Helmet Usage

Summary

- Only around one in twenty passengers in Kampala own and regularly use helmets, and this is the result of a widespread belief amongst passengers that it is not necessary to use helmets.
- Amongst riders, the most common reason for not wearing helmets is reported discomfort and overheating. However, this does not match up against expected patterns – that is, riders using helmets with the best ventilation and least protection complain the most about overheating with their current helmets.

Ownership

While a strong majority of motorcycle riders own helmets in Kampala, very few passengers do. This represents a separate challenge, but it is important to start by understanding how most people acquire helmets in the first place.

Getting Helmets

The majority of helmets in Kampala are bought by users on their own. For boda boda riders, around 22% of helmets owned came with the motorcycle at the point-of-sale, rising to 28% for commercial riders. This points to the potential limitations of approaches focused solely on the point-of-sale of motorcycles. Interestingly, around one out of five passenger helmets were acquired freely.

For those who purchased their helmets separately, the costs of helmets also varied, pointing to the diversity of brands and standards available. Full face helmets were the most expensive on average, followed by modular helmets.

Figure 8: Acquiring helmets

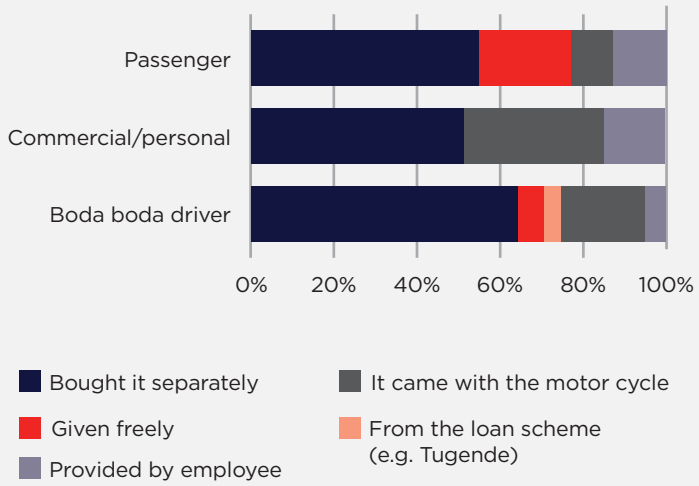


Table 3: Helmet cost by helmet type and user type

Helmet Type	Boda boda rider	Commercial / personal	Passenger	Average
Half shell	33,762 UGX	-	-	33,762 UGX
Half face	40,647 UGX	45,750 UGX	30,000 UGX	41,086 UGX
Full face	90,684 UGX	65,700 UGX	57,000 UGX	82,069 UGX
Modular	70,000 UGX	80,000 UGX	-	73,333 UGX
Average	47,164 UGX	58,053 UGX	46,875 UGX	48,571 UGX

However, the price for a helmet of recommended standards and quality for a regular rider ranges between USD20 and USD25 (UGX 70,000 – 90,000). The minimum cost of a good quality but basic full-face helmet in Kenya starts at Kshs1,500 (UGX 50,000) while one certified by ISO averages Kshs4,500 (UGX150,000).

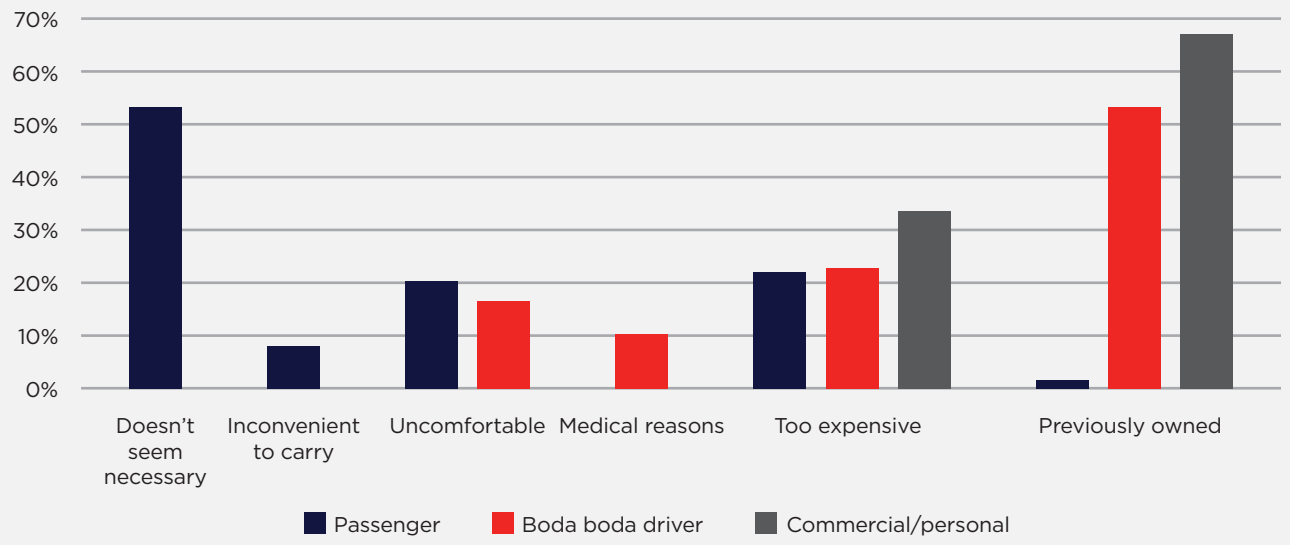
Knowledge of Standards

Riders and passengers revealed essentially no knowledge of international standards. Those who claimed to know the standards of the helmets they were wearing referenced brands such as Tugende or "original," rather than any particular standard. Of the 22 distributors interviewed, only 2 demonstrated knowledge about the ECE 22.05 motorcycle helmet standard. Rather, other aspects were insinuated to be related to the standard of quality of the motorcycle helmet.

Passenger Disinterest

As mentioned earlier, while more than 90% of motorcycle riders in Kampala report owning a helmet, barely 5% of passengers do. Just over half of all passengers who don't own helmets responded that the reason was that they didn't believe owning a helmet was necessary. This was confirmed by interviews with stakeholders from boda boda associations and policymakers, who all noted the passengers' belief that helmet ownership was unnecessary.

Figure 9: Reported reasons for not owning a helmet

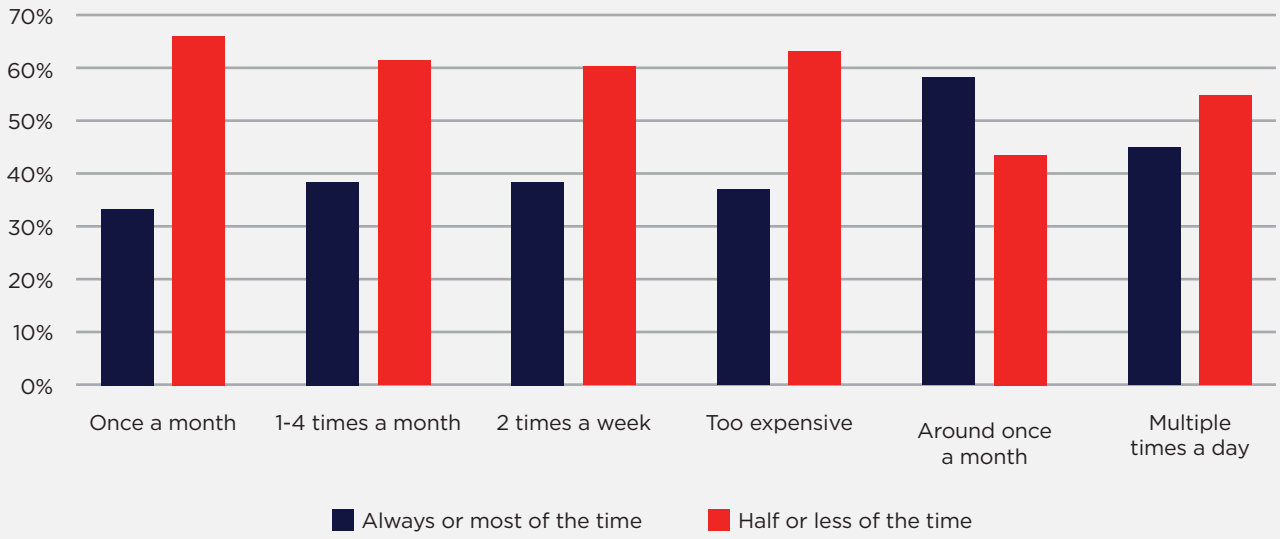


Rider provision of passenger helmets

The 2016 Traffic and Road Safety Regulations require passengers "wear a crash or safety helmet provided by the rider at all times while being carried on the motorcycle." The 2016 Regulations state that the penalty is UGX 40,000, the same as for motorcycles. However, in neither that legislation, nor the original 2004 Traffic and Road Safety (Motorcycles) Regulations are there any stipulations requiring riders to carry helmets for passengers. This constitutes a large loophole, as passengers are by law reliant on riders who have no such motivation. In the process, police do not enforce the law requiring passengers to wear helmets, and interviews with many in the industry demonstrated a very low awareness that there are penalties for passengers not wearing helmets, indicating even enforcement agents - the police - are largely unaware.

Attempting to fill this legislative gap has been the company policies of Safe Boda, the largest ride-hailing boda company in Kampala, with around 8,000 to 9,000 riders currently on the app. Prior to Covid-19, Safe Boda riders were highly favoured for always carrying passenger helmets - a 2019 study, for example, found that 23% of Safe Boda passengers wore helmets, compared to less than 1% of non-Safe Boda passengers (Muni et al).

Figure 10: Passenger willingness to use rider-provided helmet, broken down by frequency of boda boda use



Unfortunately, the pandemic has also had a significantly negative effect on this issue for SafeBoda, whose riders are required by company policy to carry a passenger helmet. SafeBoda rider quality and performance manager estimates that SafeBoda riders went from 100% compliance with this policy to 40% compliance; others estimate much lower compliance rates. Some SafeBoda riders have complained that police have prevented them from carrying passenger helmets, though there seem to have been no official pronouncements to this effect.

Riders Without Helmets

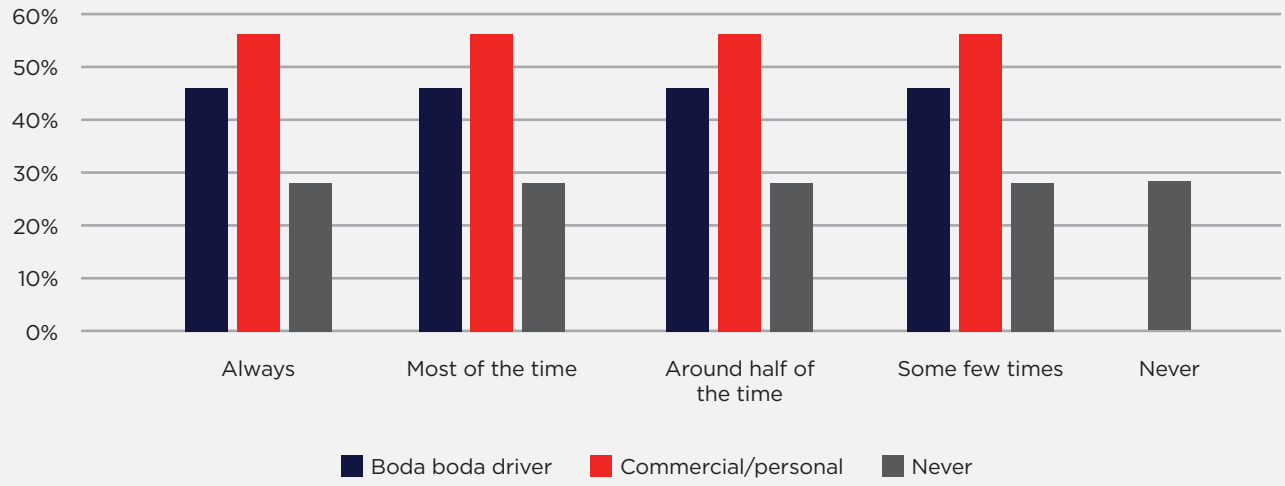
Riders indicated somewhat different reasons for not owning helmets. Most riders - both boda and formal delivery - indicated being in an in-between place, having previously owned a helmet and presumably will get another soon. Those who didn't, complained primarily about the price of available helmets or discomfort with helmets.

The fact that not a single motorcycle rider said they thought owning a helmet was unnecessary suggests that riders could also be tapped to send this message on to passengers.

Usage

Usage of helmets by those who own helmets is relatively high for riders, 80% of whom report wearing their helmets always or most of the time. The observational study, furthermore, found that 69% of all motorcycle riders on the road were wearing helmets, though a further 14% had helmets on their person that they were not wearing as they moved.

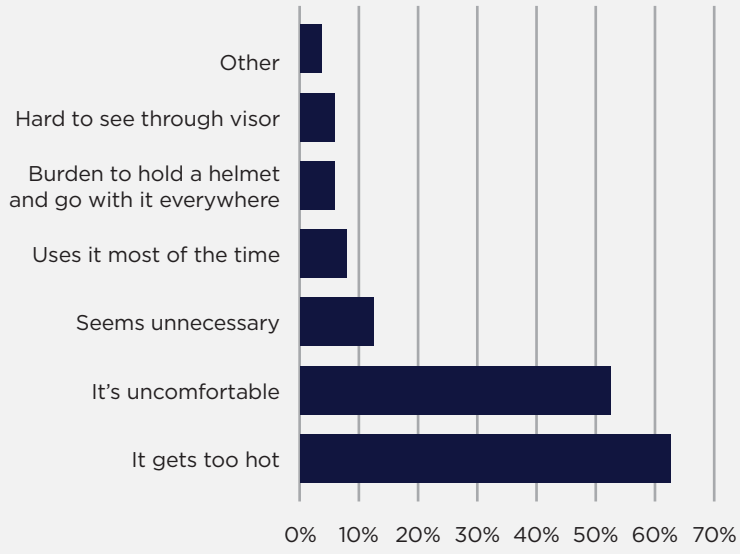
Figure 10: Passenger willingness to use rider-provided helmet, broken down by frequency of boda boda use



Reasons For Not Using Helmets

Riders who owned but didn't wear helmets every time had two primary, very similar reasons: that helmets were too hot and were uncomfortable to wear. These largely hold true across different helmet types - meaning those with full face helmets, which one might expect to have less ventilation and thus be more uncomfortable - did not report any higher levels of discomfort than those wearing half-face or half-shell helmets.

Figure 12: Respondents reasons for not using helmets



Pricing Difference

One of the deliverables of the study was to provide an assessment of prices for helmets that meet the recommended standards and those that do not. However, given that there is limited knowledge among the sellers and users on standards of helmets available in the market, the study couldn't avail such information. However, presented in the table below are prices by selected distributors and retailers and type of helmet sold.

DISTRIBUTOR	TYPE OF HELMET	PRICE (UGX)
TOP BIKES	Top bike (Quarter helmet) - no visor, no ear guard	20,000
	Top bike (half face), with visor and ear guard	50,000
	IBK (half face) with visor and ear guard	50,000
	Speed and strength (full face)	500,000
	SHIRO (full face)	350,000
	Tanked Racing/Red bull (full face)	250,000
	REMO (full face)	200,000
	WEIPU (full face)	180,000
	JS- (half face) comes with blue tooth device	450,000
YUVRAJ INTERNATIONAL (U) LTD Distributors of TVS motorcycles	TVS helmets, (half face)	80,000
	TVS helmets (full face)	100,000
	Beyond (half face)- has visor, ear guard	30,000
	Verma Co helmet (full face)	50,000
DURA MOTORS	Radin (half face) with visor and ear guard	30,000
	Radin (full face)	50,000
KITONSA AND SONS PROPERTY DEALERS LTD (RETAIL)	Sharon (full face)	65,000
	Vermaco (half face)	35,000
	Vermaco/ CARE - (full face)	60,000
KATWE DEALER (RETAILER)	Beyond (half face) with visor, and ear guard	25,000
	Jadumu (half face) with visor and no ear guard	25,000
	Jadumu (half face) with no visor, no ear guard	20,000
	D&K (full face)	30,000
KAHUNDE BUSINESS CENTRE (KATWE RETAIL)	CARE (full face) - with visor and ear guard	45,000
	Aerostar (half face)	35,000
	UPER (Full face) with visor and chin bar	30,000
	SUPER (half face) covering ears with visor	27,000
D&K GENUINE SHOP, Shamba complex Building, nakivubo road (WHOLESALE)	Point brand, (half face) covering ears and visor	21,000
	Point brand, (full face)	22,000
	D&K (full face)	22,000
MAKULAHAD MOTORS - RETAIL AND WHOLESALE (LEISURETEC BUILDING)	LV COOL, sport (full face)	200,00
	COOLSEVEN (full face) - with chin bar	130,000
	RED BULL (Modular)	170,000
	LV COOL (modular)	150,000
SHAURIYAKO DEALER, RETAIL	Crocodile (full face)	40,000
	Crocodile (half face) covering ears and visor	30,000
	Radin (half face) with visor and additional inbuilt sunglasses	90,000

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DISTRIBUTOR	TYPE OF HELMET	PRICE (UGX)
SAFEBODA	Safeboda (full face)	35,000
HONDA DEALERS, NDEEBA	AVEX. (full face)	150,000
	Honda Studd, (full face)	150,000
	INDEX (full face)	150,000
SIMBA AUTOMOTIVE LTD, KAMWOKYA	02- (full face)	90,000
	02- (half face) with visor and ear guard	75,000
HERO MOTOR CYCLES	Hero helmet full face	35,000

Recommendend Models For Expanded Access to Safe Helmets

Summary

- We lay out three potential models for improving both the quality and usage of motorcycle helmets in Kampala, and compare them in terms of their ease of implementation and expected impact.
- It is clear that the legal requirement for drivers to provide helmets to their passengers while only requiring a single helmet to be sold with the motorcycle is insufficient. Therefore we recommend expanding this requirement to two helmets as a minimum.
- While a barebones approach along this line (Option 1) requiring two helmets to be sold with every motorcycle would see modest gains in the number and usage of helmets in the market, it would not make a significant impact on the quality of helmets.
- A full-throated approach (Option 3) combining the two-helmet sale requirement, new standards, and a public awareness campaign could bring significant improvements to the sector over time, including raising passenger usage by 10 times and shifting the market towards full-face and modular helmets.

Assumptions

We made three major assumptions for this modelling exercise.

1. Replacement rate of 2 years for open face and full-face helmets, and replacement rate of 2.5 years for modular helmets.
2. Police are not fully aware of the current legislation requiring helmets be worn by passengers and penalties of 40,000 UGX.
3. If helmets were more regularly provided by riders, passenger willingness to use helmets would improve by around 50%.

The above assumptions are results from the market and public attitude survey conducted.

There are two major issues in helmet usage by motorcycle users in Uganda. The first is the **quality of helmets** currently in use, and this can be broken down three ways: a) the style of helmet, b) the standard of quality of all helmets, and c) the usage of helmets with significant defects.

The second issue is the **usage of motorcycle helmets.** This is broken down into three problems: a) very low passenger usage of helmets, b) lower than 100% rider ownership of helmets, and c) lower than 100% rider usage of helmets.

Only around 1 in 20 motorcycle passengers' own helmets, and only 40% report using helmets most or every time they are provided to them.

Option 1: Changing the policy to require two helmets sold with the motorcycle

In changing the policy to require motorcycles riders to provide two helmets, the intention would be to pass the simplest legislation, without needing the resources of a more full-bodied public awareness campaign.

Pros

The advantages of this approach would be in its simplicity - relying entirely on new legislation, and interacting directly with riders themselves. Providing a second helmet as part of the cost of the motorcycle - especially if it is hidden in the cost of the motorcycle, and not made to be a necessary, additional charge - could help send the message to riders that passengers ought to be wearing a helmet.

It could then improve passenger usage significantly from the **6%** who currently own and use to include the **33%** who do not own but use helmets every time they are provided, to reach **39%** of passengers - and an additional 10% of passengers using provided helmets most of the time. Additionally, by making helmets more readily available for passengers, it could drive up passenger willingness to use rider-provided helmets.

This approach was also emphasized by distributors.

> "Boda riders should be instructed to have 2 helmets."
>
> **-M & K Motor spares-Shamba Complex, Kiseka Market**

Cons

The most immediate downside of this approach is that it relies entirely on the point of motorcycle sale. However, motorcycles used for boda boda work in Uganda follow different patterns for acquisition - only around 33% are bought new by the riders, though this number is rising (Master's Project). For used motorcycles, helmets are almost never sold along with them.

For motorcycles that are on the kibaluwa rental system, the motorcycle is initially bought along with a helmet by an owner. As Sam Clarke points out, there is no guarantee that the helmet will then be passed along to the rider, though anecdotally it happens in most circumstances. One potential outcome of this law would then be that owners would sell the second helmet to others, as carrying a passenger helmet is not the norm in the industry.

For motorcycles that are on a lease-to-own scheme, the riders would similarly have the option to sell or pass along a second helmet to others. With nearly 90% of riders already owning helmets, these second helmets could displace some of the newly bought helmets on the market - or they could be passed on to riders who have bought used a used motorcycle.

Critically, however, helmets do not last as long as motorcycles. This means regardless of the means of acquisition of the motorcycle, with the current standards in place, most riders will need another helmet before they are ready to sell on their motorcycle.

Conclusion

Only changing the law to require two helmets sold with every motorcycle is not likely to have any substantial impact on the quality of helmets on the market, either in terms of helmet style, helmet standards, or helmet defects. It is likely, however, to provide a slight boost in the usage of helmets by passengers and riders, simply through providing more helmets on the market.

Option 2: Two helmets, new standards

This approach would be two-pronged:

a. Policy would be changed to require two helmets sold with every motorcycle, and one of the two helmets would have to be full-face or modular helmets

b. Standards requirements on incoming motorcycles would be improved to ensure an international standard such as ECE 22.05 would be met

Pros

Similar to Option 1, implementing a requirement to sell two helmets with every motorcycle should be relatively straightforward. It would also potentially improve passenger usage from 6% to 39%.

Different from Option 1, however, would be the improvements to the standards of helmets on the market. This option would improve both the types of helmets on the market - by increasing the proportion of full-face helmets - and the standard of quality of helmets on the market. While full face and modular helmets are nearly twice as expensive as half face helmets, including them in the cost of the motorcycle will help for the initial sale.

Tightening the requirements on helmet importation would also improve the standards of helmets across the entire market. This could then lead to longer-lasting helmets, which would help fill the gap between motorcycle sales.

Cons

While this approach has the potential to improve passenger usage, there is no reason to believe it would significantly improve rider ownership or usage.

Unfortunately, at least 60% of helmets are bought independently of the motorcycle. While the adoption of higher standards should lead to lower incidence of defects on helmets in usage, it might not affect the prevalence of defects, as riders may adjust the usable life of the helmets to fit the new standards.

Conclusion

The adoption of the FIA Safe and Affordable Helmet initiative, which is a helmet at the ECE 22.05 standard and is being sold at around $20 (or 70,000 UGX, the same as a full-face helmet that is not reaching ECE 22.05 standards), would be the best route to achieve this.

Option 3: Two helmets, new standards, public awareness campaign

This option would consist of the following:

- **a.** Policy would be changed to require two helmets sold with every motorcycle, and one of the two helmets would have to be full-face or modular helmets
- **b.** Standards requirements on incoming motorcycles would be improved to ensure an international standard such as ECE 22.05 would be met
- **c.** Riders are required to carry a second helmet for passengers
- **d.** And a public awareness campaign including billboards and radio ads, which would emphasize helmet usage amongst both riders and passengers, as well as encourage riders to use high quality, no-defect helmets.

Pros

This would be by far the most comprehensive approach to improving helmet quality and usage on the roads. By increasing the number of helmets on the market, improving helmet quality, and encouraging and normalizing helmet usage, this approach can do the most to improve helmet ownership and usage, as well as helmet quality and efficacy.

Rider ownership would rise due to both the legislation and the campaign, and usage along with it. Passenger ownership and usage could also rise significantly, to more than 50% usage, particularly if the requirement for rider-provided passenger helmets is enforced.

Helmet quality would be improved by both the adoption and enforcement of a more stringent standard as well as the public awareness campaign. If the campaign makes helmet quality and non-usage of helmets with serious defects standard, usage of defective helmets could also drop, increasing the efficacy of helmets in use. Language framing helmets as vaccines would be a beneficial approach in the era of Covid-19 vaccines. Sensitization was highlighted by distributers as a

> "Sensitization and awareness should be increased by engaging boda-boda associations and doing park by park visits."
>
> **-Verma Co, Ndeeba**

It was noted also by distributers that engaging with the leadership would be more beneficial than engaging with individuals.

> "I think to better enforce safety ideas on the road, it requires engaging Boda-boda leaders than individuals because individuals are slippery and unreliable."
>
> **-Verma Co, Ndeeba**

Cons

Questions would undoubtedly remain around helmet-sharing by passengers. Hairnet distribution would need to improve. Rider provision of passenger helmets would depend largely on enforcement. Neighboring Rwanda has proven it is possible, though overall improvement of traffic police consistency and knowledge of the law would be a requirement.

A successful public awareness campaign would require significant financing, in the range of around $1 million. It would include both outdoor (billboards, big screen ads) and indoor (radio, TV, social media) messaging. Additionally, leaders should be brought on board from across the boda boda industry and society to insure trust in the message and a wide spread. This should include ride-hailing companies, motorcycle salespeople, government leaders, and cultural institutions.

Changing standards would require effective enforcement at both the institutional level and on the streets. This means championing by leaders in government and broader society.

Conclusion

This is the most resource-intensive approach, but also the most effective and highest-impact approach. Some partners could be readily found amongst the private sector, such as SafeBoda, Tugende, and Watu, as well as distributors of motorcycles. Additionally, requiring riders to carry a passenger helmet would also cover riders who are renting or have bought their motorcycles second-hand, making them responsible for having the passenger helmet.

To ensure high efficacy, there should be close coordination with the public awareness campaign. This would mean including messaging specifically aimed at 1) rider usage, 2) helmet quality and defects, 3) passenger usage, and 4) hairnet usage. Passengers can reuse their own hairnets several times before the quality decreases, and this message can help reduce hairnet consumption and pollution.

When asked about Policy, all distributors agree that the current policy on helmets usage is adequate but its enforcement is the weakest link. Although a policy on selling every motorcycle with two accompanying helmets is supported, two main challenges likely to hinder its implementation were highlighted and these include; the likely increase in the ultimate price of a motorcycle hence lowering demand and the health risk of sharing public helmets that boda-boda customers might be exposed to owing to the Covid-19 pandemic. Thus, sensitization is critical to ensure the uptake of helmets, as well as more innovative solutions to ensure hygiene standards for shared helmets.

Such a campaign should aim to target radio and TV, with materials also made for easy distribution on social media. Organizers should ensure stakeholder participation, such as boda-boda associations, and tailoring of materials to the target audiences. This would aid in distribution of educational materials on boda-boda related social media groups such as WhatsApp and Facebook.

Finally, it is critically important to keep helmets affordable. Almost all distributors cited high taxes as the most challenging aspect of their businesses and this in turn leads to high prices for the helmets coupled with low awareness.

> “Yes, there is price fluctuation and deviations in quality of helmets. We retail dealers don’t face much of UNBS and URA challenges except the indirect taxes. Quality of helmets should be improved. Not every helmet is safe. India and Japan produce quality helmets.”
>
> **-Sherry auto parts, Kiseka**

Down The Road

Moving forward, we would recommend a full-throated response to the endemic road safety issues in Uganda based on our third option, consisting of requiring two helmets sold with motorcycles, improving helmet standards, and a public awareness campaign. This would be the most effective means to reducing injuries and deaths on our roads, and improving the quality of life of passengers and riders.

List and Contacts of Selected Distributors and Retailers

NO.	Name	Location and Contact
1.	Verma Co	PLOT-46, MIREMBE BUSINESS CENTRE, LUGOGO BY PASS, P.O. BOX 33733, KAMPALA UGANDA Toll free: 0800 340 777 https://bajajverma.com
2.	Gomet Auto Parts Ltd	KAMPALA CENTRAL DIVISION NAKIVUBO ROAD SHAMBA COMPLEX LEVEL01
3.	Rana Auto	KAMPALA CENTRAL DIVISION NAKIVUBO ROAD SHAMBA COMPLEX SHOP 23366 KAMPALA
4.	Honda Uganda Limited	Plot 91 First St, P.O.Box 2007, Kampala, Uganda PHONE NUMBER +256-414-250802 +256-393-260131
5.	Dura Motors	Phone: +256 757 986 286 /+256 752-809 894 Email: sales@duramotors.co.ug
6.	Yuvraj International (Uganda) Limited	Plot Number 103, Jinja Road, Kampala, P.O. Box 75067, Kampala, Uganda, East Africa. Telephone: +256 (0)776 199 999, Email: rrarya@indoafriiautogalery.com
7.	Haojue Uganda	Phone: 0200 960004 sales@eaglegeneraltraders.com
8.	SafeBoda	Nicholas Katungi 0701 694338 SafeBoda Academy School Kyebando Kyebando Kanyike road team@safeboda.com
9.	Tugende Ltd	57 Ntinda II Road, Naguru, Kampala mansur@gotugende.com info@goTugende.com 0776301673
10.	Toyota Uganda Limited	P.O Box 31732 Kampala harold.kayizzi@toyota.co.ug 078805785
11.	Top Bikes	Ndeeba 0702355319 http://www.topbikes.ug.com
12.	Mansy Enterprises Ltd	Plot 308 6th Street Bugolobi, P.O. Box 8643, Kampala, Uganda 0414 268 817 Patrick Ssembusi – Sales Manager

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NO.	Name	Location and Contact
13.	Miracle Motors Uganda	Plot 57 William Street, near KCC Central Division William St, Kampala P.O. Box 33733, Kampala, Uganda +256 757 898900 / 0752220988
14.	Simba Automotives Ltd Uganda	Plot No. 84, Kira road. P.O Box 24281, Kampala -Uganda (+256) 758 122 122
15.	Godsped Enterprises	Gertrude Rose Gamwera - Director
16.	Kishen Entreprises Uganda	Ndeeba +256788472040/ +256757986286

Bibliography

Bishop, Tom, Caroline Barber, Elizabeth Kiracho, Neil Rettie, Aggie Krasnolucka-Hickman, Darren Divall, and Gina Porter. "Enhancing Understanding on Safe Motorcycle and Three-Wheeler Use for Rural Transport," 2018. https://assets.publishing.service.gov.uk/media/5e189d40ed915d3b08797c2a/Bishopetal-AmendTransaid-2019-EnhancingUnderstandingSafeMotorcycleThreeWheelerUse-Uganda-AfCAP-RAF2114A-190617.pdf.

David, Mwesigwa. "HELMET USE AMONG COMMERCIAL MOTORCYCLISTS: A SURVEY OF TWO MUNICIPALITIES IN UGANDA," August 12, 2019, 81–97.

Kamulegeya, L. H., M. Kizito, R. Nassali, S. Bagayana, and A. E. Elobu. "The Scourge of Head Injury among Commercial Motorcycle Riders in Kampala; a Preventable Clinical and Public Health Menace." African Health Sciences 15, no. 3 (September 10, 2015): 1016–22. https://doi.org/10.4314/ahs.v15i3.41.

Kline, Rex B. Principles and Practice of Structural Equation Modeling, 3rd Ed. Principles and Practice of Structural Equation Modeling, 3rd Ed. New York, NY, US: Guilford Press, 2011.

Muni et al. "Muni et al (2020) - SafeBoda and Safe Riding Habits.Pdf," 2020.

Mutatina, B., M. Nakitto, R. Naumann, D. Roehler, and A. Dellinger. "Helmet Use in Motorcycle Taxi Operators in Kampala, Uganda." Injury Prevention 18, no. Suppl 1 (October 1, 2012): A194–A194. https://doi.org/10.1136/injuryprev-2012-040590s.17.

[i] Kline, Principles and Practice of Structural Equation Modeling, 3rd Ed.

[ii] Kamulegeya et al., "The Scourge of Head Injury among Commercial Motorcycle Riders in Kampala; Preventable Clinical and Public Health Menace."

[iii] Kamulegeya et al.

[iv] Mutatina et al., "Helmet Use in Motorcycle Taxi Operators in Kampala, Uganda."

[v] Kamulegeya et al., "The Scourge of Head Injury among Commercial Motorcycle Riders in Kampala; a Preventable Clinical and Public Health Menace."

[vi] Muni et al., "Muni et al (2020) - SafeBoda and Safe Riding Habits.Pdf."

[vii] David, "HELMET USE AMONG COMMERCIAL MOTORCYCLISTS."

[viii] Bishop et al., "Enhancing Understanding on Safe Motorcycle and Three-Wheeler Use for Rural Transport."

The Road Safety Advocacy Coalition Uganda consists of the following organizations;