

A Survey on Usage of Two wheeler Vehicle Indicators in Bengaluru City

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Abstract—Transportation is one of the key areas of discussion for various reasons. Based on distance travelled, economy and availability there are various modes to choose from. In Indian context, economy is the important parameter of consideration for transportation from one place to another. Modes of transport could be train, bus, car, bikes, scooters, aeroplanes to name the major ones. In metropolitan cities like Bengaluru which are crowded and have challenges like higher traffic density, riders have a greater role to play in usage of the vehicle. This article focuses on the awareness of two wheeler user while on road. There are many accidents happening due to improper communication of vehicle users. Usage of indicators being one of them. This survey is a preliminary study to throw some light on the awareness and usage of indicators.

Keywords-Transportation, Bengaluru, Two wheeler vehicles, indicators

I. INTRODUCTION

Road safety is a central issue worldwide, lot of scientific literature on road accidents indicates the importance of road safety. It involves thinking from various perspectives; riders perspective, manufacturer's perspective, societal perspective etc. The paper, thus, deals with a specific approach to assess the usage of two wheeler indicators. Communication between two people is very important. And if you want others to know what you are up to, you simply tell them or talk about it. But when you are on the road and behind the steering wheel, and you want to let other road users know about your intentions in advance, then regular methods of communications are of no use. But most of the drivers simply forget this simple concept. They change lanes, overtake without indicating or without any warning, which can cause accident. Using indicators is an essential part of road safety as it informs other road users about the driver's intentions. If you fail to use indicators, it can lead to accidents. Drivers should use indicators when he or she is planning to execute any one of the following: Turning from a main road Roundabouts, Changing lanes or turning (U-Turn), Overtaking and Using hazard warning lights.

One should turn on the indicators well in advance so that the car behind you knows where you are heading. Start indicating when you're about 200 feet from the turn. If on the highway, make sure you start using indicators 900 feet before the turn.

This survey concentrates on: how often people use their vehicle indicators, to understand reason why people don't use indicators on regular basis & to create awareness among the people about the importance of using indicators through this survey. The methodology of the survey consists of the following aspects:

- Discussion on the usage of vehicle indicators.
- Set of 10 questions are formed.
- Circulation of Google forms and a few face to face surveying.
- The responses have been analyzed.
- Interpretation of the result

II. METHODOLOGY

The study focused on collecting responses from individuals on various connected areas. The first one is the gender of the user. It could be seen that males and females are almost equal in terms of survey population.

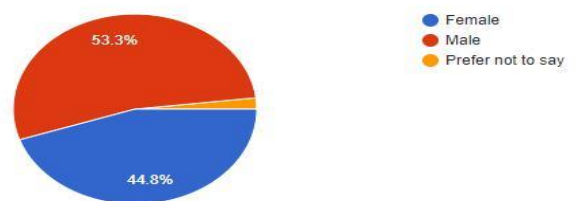


Figure 1. Gender of the rider

The second aspect was to understand the age group of the survey population. 121 were in the age group between 18 to 30, 56 were in the age group between 31 to 40, 25 were in the age group between 41 to 50 & 8 were in the age group above 50 as in figure 2.

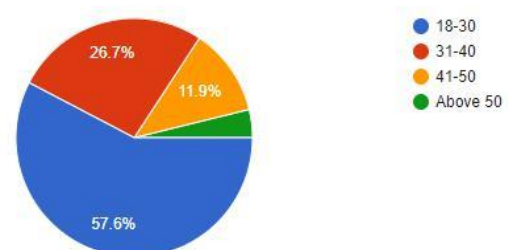


Figure 2. Age group of the rider

The type of vehicle was the third question drawing inputs on the type of car/ bike/scooter used by the rider. About 73% of the respondents were two wheeler users and 27% of them being car users as seen in figure 3.

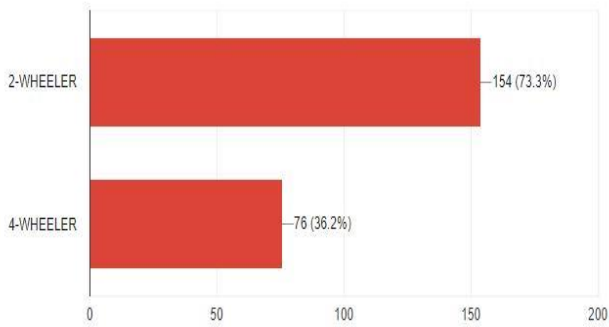


Figure 3. Type of vehicle used by rider

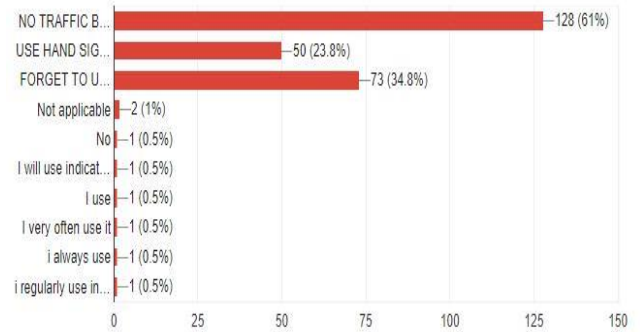


Figure 5. Reason for not using indicator always

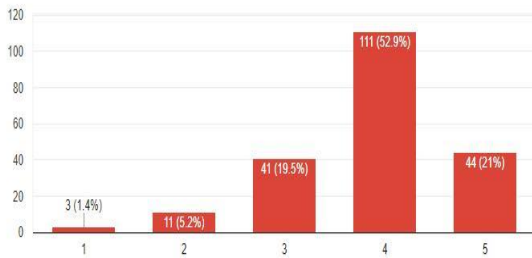


Figure 4. Use of indicators

The respondents were asked to opine on the usage of indicators while driving the vehicle on a scale of 1 to 5 where 5 indicates "Always Use" and 1 indicates "Rarely Use". It can be understood from figure 4 that a large percentage is yet to shift towards rating 5 which means they are aware and consciously use the indicator while they are taking a turn. The portion of respondents not using indicators always may be due to the reason that the road is empty, there are no vehicles nearby or forget to turn on the indicator. From the survey it is found out that 52.9% of the total people surveyed use indicators more often.

The reason for not using the indicator always was also surveyed. The respondents had a range of reasons; No traffic behind, use hand signals, forgot to use the indicators and I use, I always use indicator, not applicable. From the survey we found that the 61% of them gave the reason that they don't use indicators as 'No traffic behind'. And the other reasons were, Use of hand signals - 23.8% Forget to use indicators - 34.8% And few of the custom inputs were given by the respondents. It can be seen from the figure 5 that a greater percentage of people(94%) do not use Indicators either because there was nobody In the immediate vicinity of forgot to use which indicates about their casual attitude towards usage of indicators which is a serious issue. Turning the Indicator on should be a habit Irrespective of whether anyone is seen in the surrounding.

A question was asked to respond on requirement of sound along with the indication to which 132 agree that the vehicles should include sound alert with the indicators. 44 disagree that the vehicles shouldn't include sound alert with indicators. 34 people say maybe. From these responses we can derive that majority of the people are willing to include sound alerts with the indicators on all vehicles. Sound alert is required because it may so happen that the user may forget to turn the indicator of at times which may be due to non-functioning of light display. 98 of them forget to switch off the indicator after use. 33 of them never forget to switch it off after the use. 79 of them has vehicle with automatic indicator switching off technology. From these responses it could be concluded that most of the people forget to switch off their indicators after use, which is why automatic switching off technology of indicators should be included in all the vehicles which will help the riders/drivers. There was a question on the automatic switching off of indicator technology. 182 agree automatic switching off of indicators technology should be used in all the vehicles.9 disagree automatic switching off of indicators technology shouldn't be used in all vehicles.19 people say it doesn't matter to them. According to the most of the people surveyed, the automatic switching off technology of indicators should be included in all the vehicles.

Respondents were asked whether they had been through any bad experiences because of not using indicators or because of the fellow rider not using the indicator

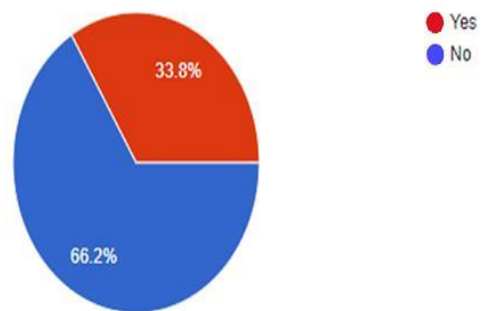


Figure 6. Have met with an accident for not using indicator

This emphasizes the importance on usage of two wheeler indicators while taking a turn at required distance and speed. 71 of them have been through an accident because they didn't use indicators or vehicle around them didn't use indicators.139 of them haven't been through an accident. Majority of the people surveyed isn't been through accident because of not using the

indicators. Therefore it can be observed that the non-usage of the indicator is not that of a serious condition. But still attention is to be given as 33.8% of the respondents are been through accidents because of non-usage of indicators. The respondents were also asked about the usage of indicators for some other functions as to a break down or to let go the traffic etc. About 57% of the respondents were either unaware or felt that indicators are to be used only while changing the direction.

III. CONCLUSION

The survey clearly indicates the fact that out of 212 participants, 50% of participants use indicators on regular basis. Most of the respondents are in the age group of 18-30 years. From the survey responses 63% of them prefer indicators with sound alert system. Since the present world has been technically advanced most of them prefer to have automatic switching off of indicators and this was clearly reflected in our survey.

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