

Road Accident Dashboard For The Year 2021 and 2022.

Data Used- Road Accident Data for the year 2021 and 2022

Data Cleaning & Analysis- Power Query

Data Visualization- Power BI

Requirements/Questions to answer for the project

2021-Previous Year

2022- Current Year

1. Total Casualties and Total Accident values for the Current Year and Year on Year growth (Primary KPI's).
2. Total Casualties by Accident Severity for the Current Year and Year on Year growth (Primary KPI's).
3. Total Casualties with respect to vehicle type for the Current Year (Secondary KPI's).
4. Monthly trend showing comparison of casualties for the Current Year and Previous Year.
5. Casualties by Road Type for the Current Year.
6. Current Year Casualties by Area/Location and by Day/Night.
7. Total Casualties and Total Accidents by Location.

Stakeholders

- Road Transport Department
- Police Department
- Emergency Department Service
- Road Safety Cops
- Traffic Management Agencies
- Public
- Media

Power BI Functionalities

- Connecting raw/flat file to Power BI.
- Data cleaning in Power Query.
- Data Processing.
- Time Intelligence Functions and Calendar Date Table in Power BI.
- Data Modelling (Relationship between multiple tables).
- Calculations using DAX.
- KPI and Advanced KPI Generations.
- Creating custom columns and measures in the reports.
- Creating different charts and generating insights.

- Export the report to PDF format

Summary of Findings

- The number of accidents and casualties have decreased from the previous year to the current year which is a good thing because less cases of accidents and casualties reported.
- Most of the accidents occurring results to slight injuries than fatal injuries which is a good thing because that means there are not a lot of deaths occurring as a result of road accidents.
- There are more accidents caused by cars, bikes and vans than bus and agricultural vehicles.
- Most accidents take place between September and November and less accidents occur between December and February and for other months the number of accidents and casualties are fairly balanced.
- There are more casualties taking place in single and dual carriageway so the road transport department has to focus more on these roads.
- There are less accidents and casualties happening in the rural areas compared to the urban areas. This is due to the busyness of the urban areas compared to the rural areas.
- Because most people drive during the day, most accidents take place then than during the night when it's dark and there are less vehicles on the road.