

# Exploring the Challenges and Demographics of Public Transport Drivers - Insights through Descriptive Analysis into Well-being and Urban Mobility

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# Outline

- Background and Introduction
- Objective
- Methodology
- Data Description
- Results
- Conclusions

# Context and Background

- ❑ Public Transport (PT) is the backbone of the commute
- ❑ Many studies in the Western World on Drivers' stress and well-being.
- ❑ PT in India is augmented by the Informal Sector.
  - ❑ The study refers to drivers of All Public Modes as PT Drivers.
- ❑ A few studies deal with PT drivers.
- ❑ The problems and issues faced by the drivers are many
- ❑ The Well-Being of drivers affects Driving Performance.

# Objective and Questions

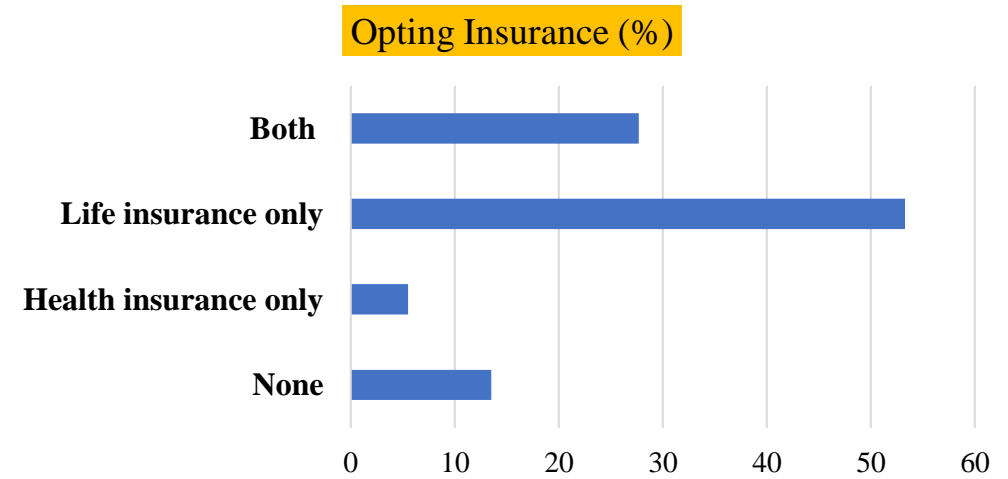
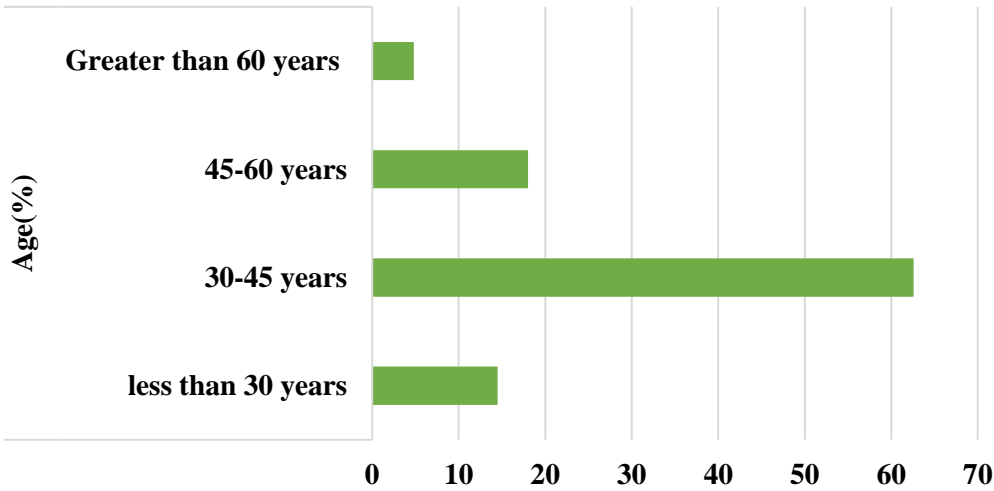
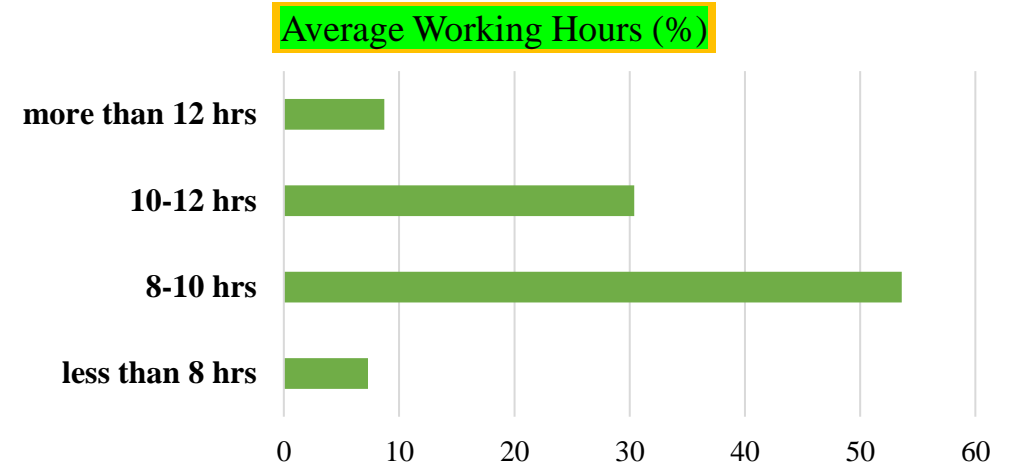
- ❖ To Explore the Problems Faced by the PT Drivers and the Relationships Between the Problems.
  - What are the different issues faced by the PT Drivers?
  - What feelings do PT drivers associate with the current scenario?

# Methodology

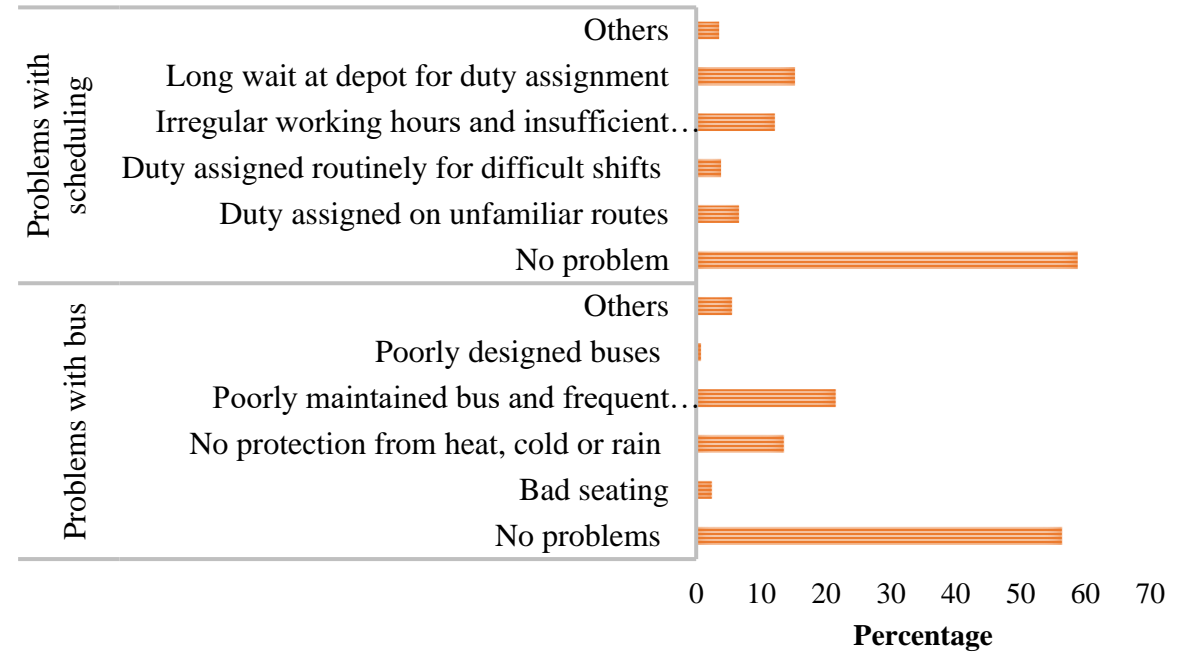
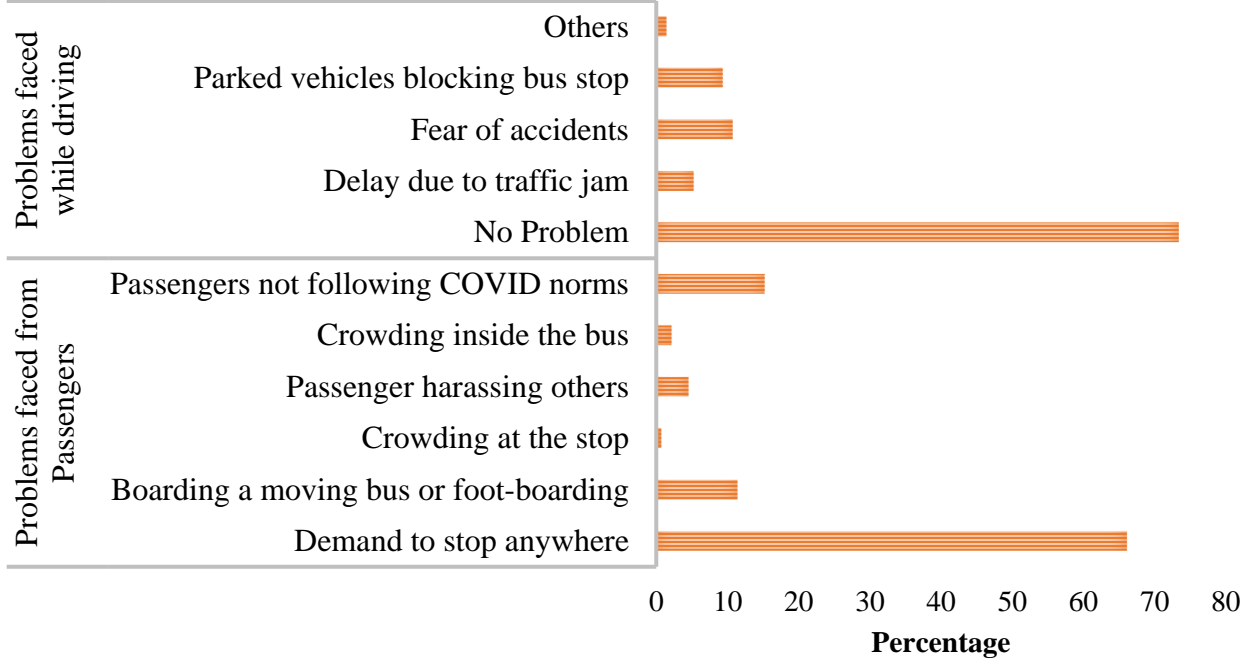
- **Descriptive analysis** of the Data collected in the city of Kota
- Sensitivity analysis using **TextBlob**
  - Analyses the input variables – Overall Feeling of Individual as **Positive, Negative or Neutral.**
  - Augmentation of Data the sensitivity analysis outcome.
- Further Insights from **Cross-Tabulation** analysis.

# Data Description

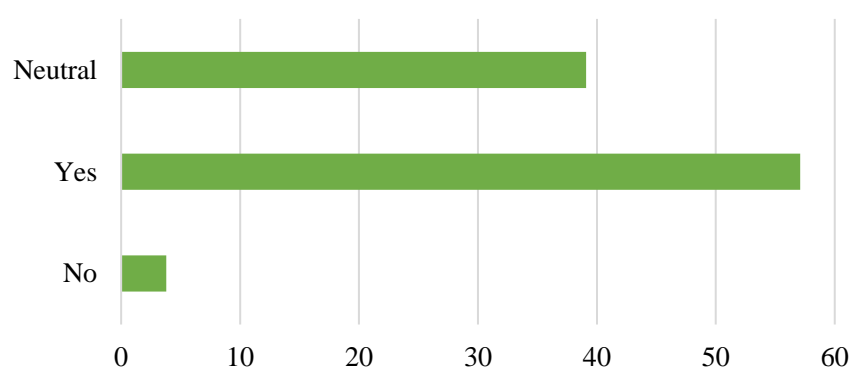
- **Data** – Questionnaire Survey  
Conducted by Smart City Kota Limited
- Face to Face Survey
- Complete Responses **289**
- **96.2 % Male Drivers**



# Data Description



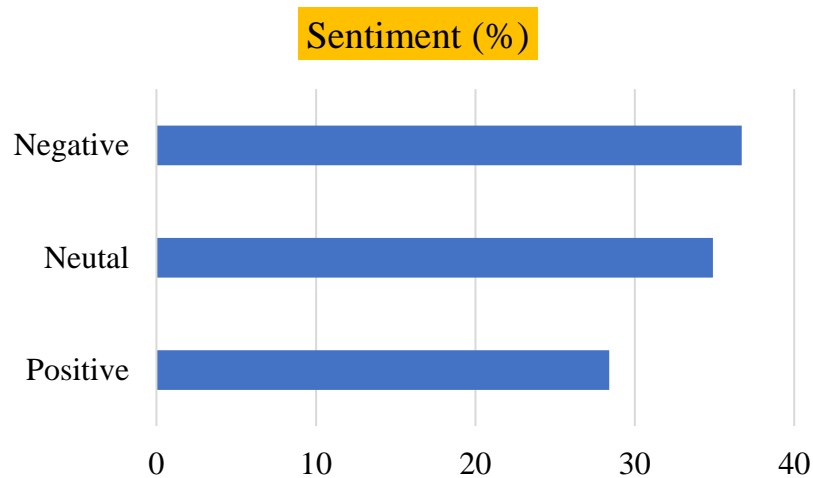
Exclusive Bus Lane Would Solve the Problem?



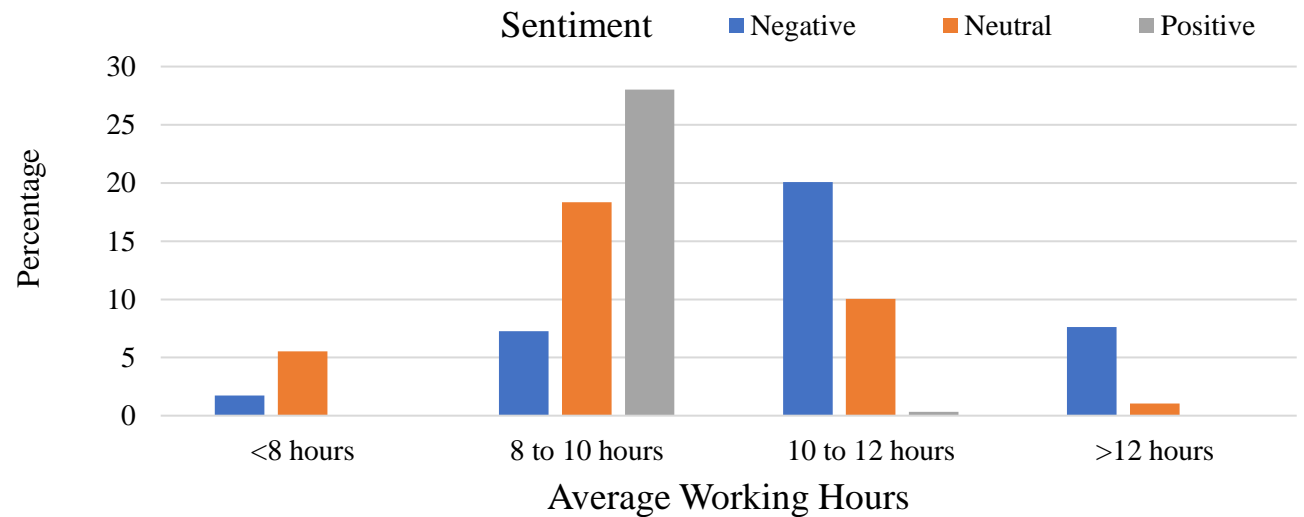
- The Drivers Predominantly belong to Kota Bus Service Limited (46.3%)

# Results

- In Sentiment Analysis – The value to the overall feeling is given as -1, 0 or 1
- Sentiment Analysis Revealed that the PT Drivers overall feel negative about the current scenario.



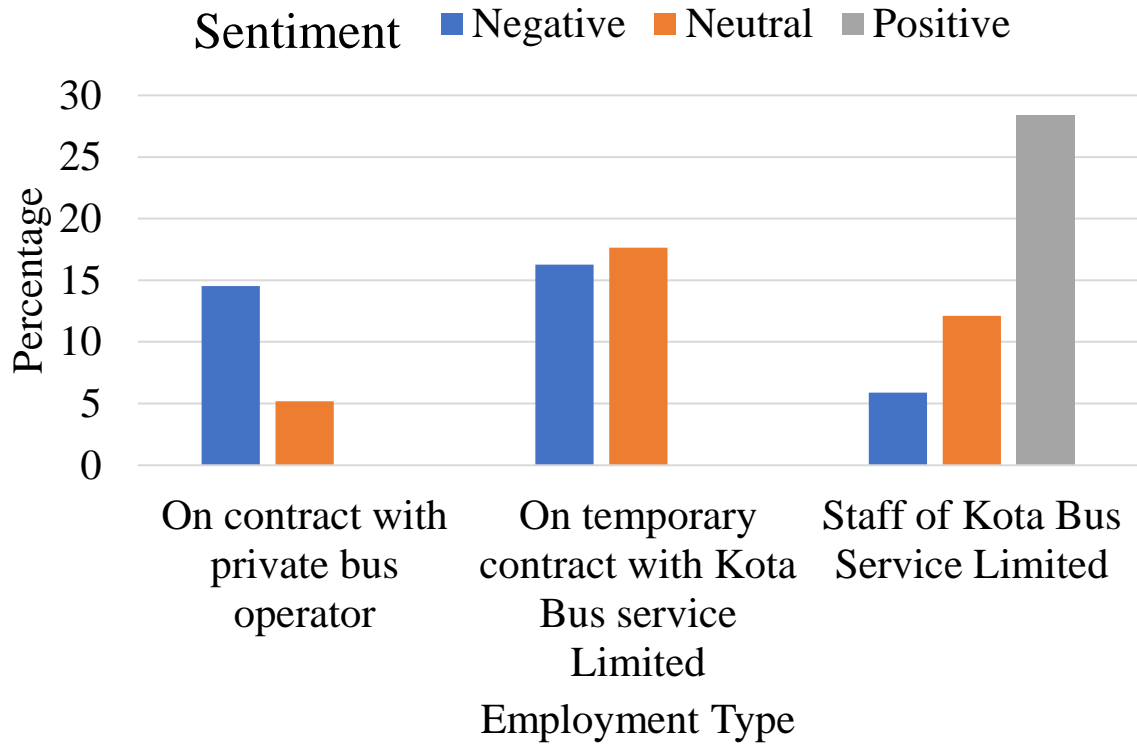
- Sentiment Value of Each Individual was added to the Data
- Cross-Tabulation Analysis – Associations



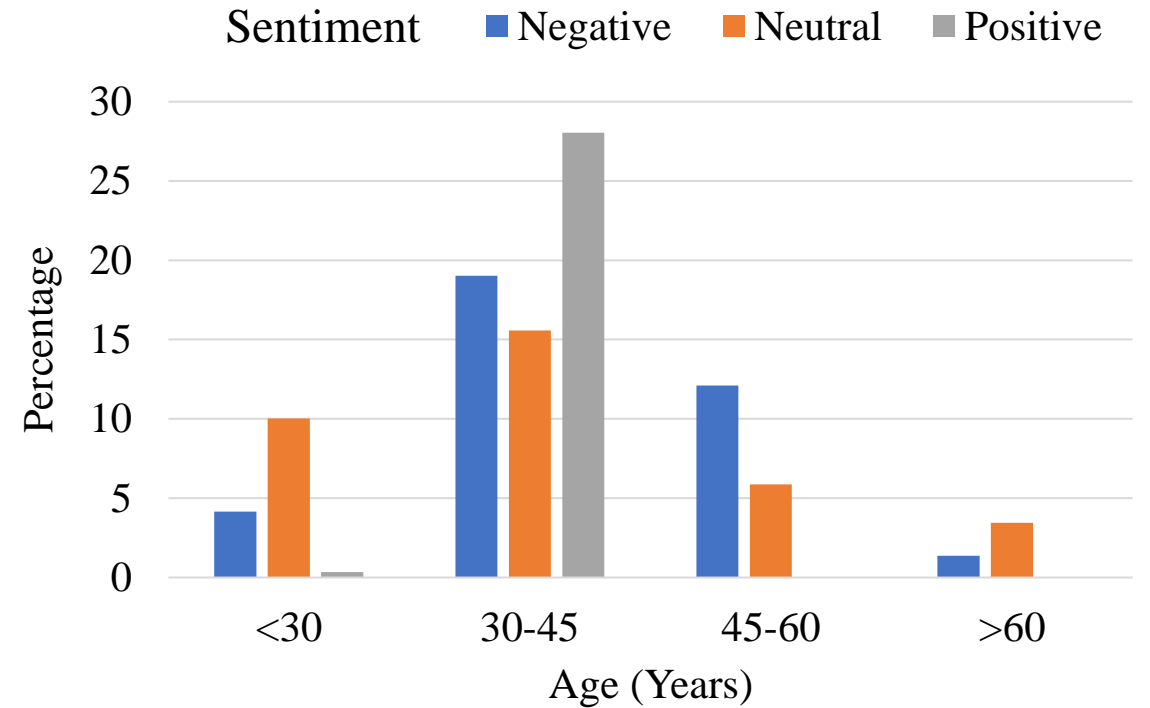
**Average working hours and Sentiment** (Chi-Square = 143 and dof = 6, p-value <.001) – Statistically Significant Association



# Results

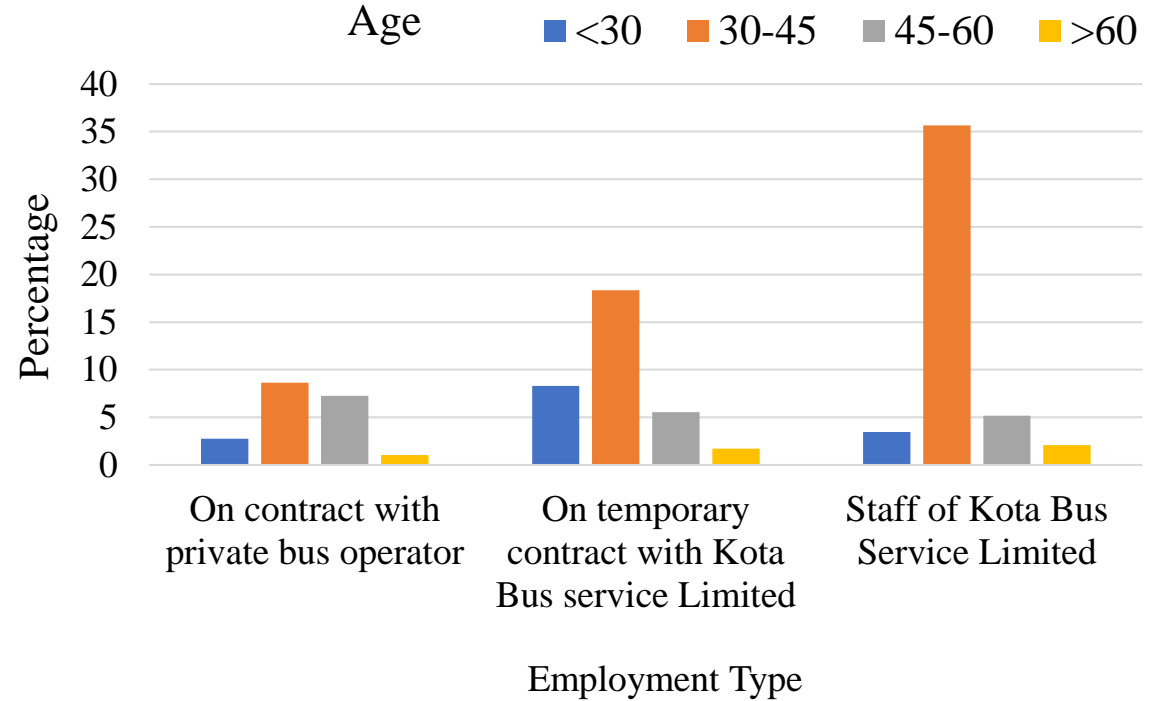
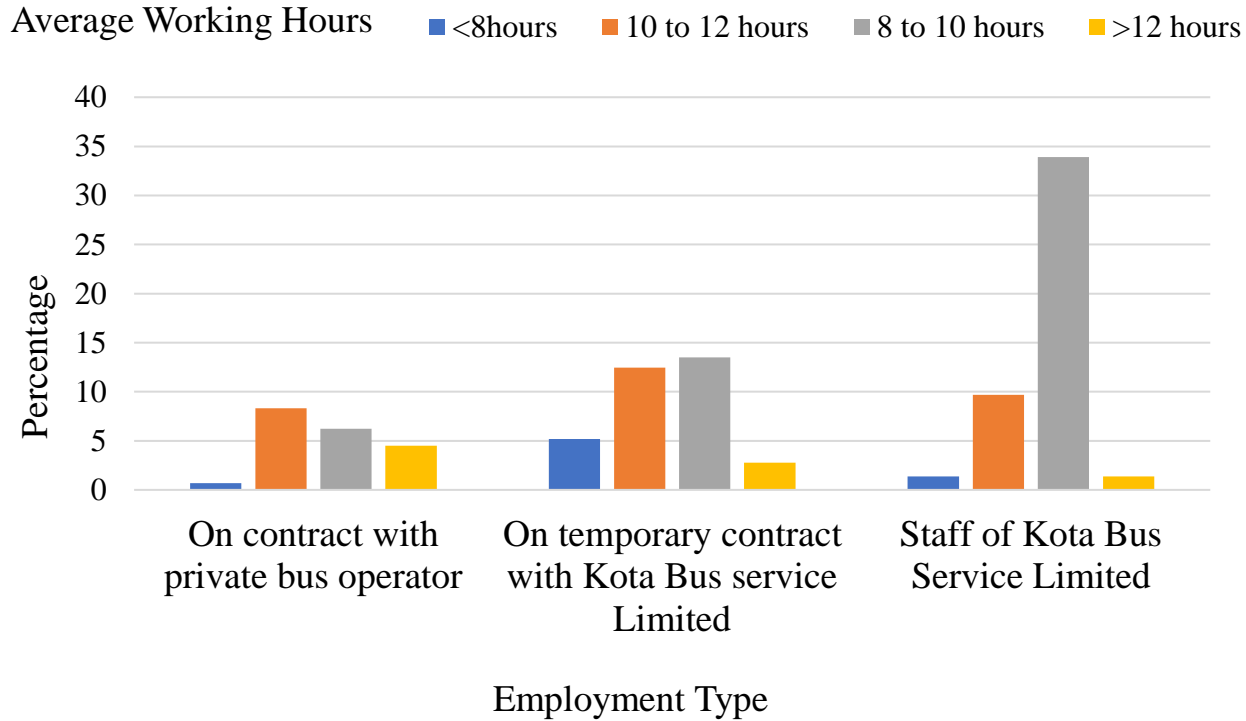


**Employment Type and Sentiment** (Chi-Square = 153 and dof = 4, p-value <.001) – Statistically Significant Association



**Age and Sentiment** (Chi-Square = 86.7 and dof = 6, p-value <.001) – Statistically Significant Association

# Results



**Employment Type and Average Working Hours** (Chi-Square = 57.4 and dof = 6, p-value <.001) – Statistically Significant Association

**Employment Type and Age** (Chi-Square = 34.9 and dof = 6, p-value <.001) – Statistically Significant Association

# Implications

- The concerns warrant attention and proactive measures.
- To address these challenges comprehensively, fostering collaboration among the pertinent stakeholders is paramount. Though the study is descriptive, some policy suggestions –
  - Prioritizing Regular Bus Maintenance
  - Public Awareness and Rules – Passenger Disciplining
  - Safety Training to Drivers
  - Working Hours and Schedule Flexibility
  - Promoting Health
  - Exploring Exclusive Bus Lanes

# Conclusions

- Public Transport is an essential aspect of Transportation system
- Drivers are the backbone of this system
- This Study has contributed in shedding light on the intricacies of PT drivers' experiences
- PT Drivers face many issues and problems
- Most PT Drivers Have a Negative Sentiment
- Associations and interdependencies between variables, this study offers a platform for devising targeted interventions that address PT drivers' multifaceted challenges.
- Descriptive analysis – Groundwork on various associations
  - Further investigations are needed to delve deeper into the specific nature of these relationships.
- Need for Research in solving the problems and issues of the PT Drivers for the overall improvement in Urban mobility and the well-being of the drivers.
- *Future studies could consider collecting qualitative and quantitative data to enhance the depth of research. Advanced statistical methods can be applied to this comprehensive dataset to generate more precise and targeted policy recommendations.*

Thank You