13. Date:

# ABSTRACT

With the widespread of transportation overtime, it's an essential requirement of mankind to travel from one place to another by means of a transport mode. With the rising environmental issues due to carbon dioxide ($CO_2$) emissions from transport modes people required an alternative method to overcome from the huge problem with the use of hybrid and electric vehicles (EVs). Hybrid and EVs play a major role in transportation in order to reduce the global Green House Gas (GHG) emissions.

The study discuss the factors that are affecting on consumers' preference on buying Hybrid and EVs. The conceptual framework was constructed based on the Theory of Planned Behavior (TPB). Primary data was collected through self-centered questionnaire from vehicle owners in the Western Province of Sri Lanka. 220 questionnaires were collected and out of that 207 were valid responses which could be used in the analysis. Cronbach's Alpha was 0.825 in the reliability test.

A Chi Square test and a Multinomial Logistics Regression along with a Factor analysis were used to identify the most influential factors for consumer purchase. Based on the findings obtained from Multinomial Logistics Regression, Age, Educational status and Province have a significant impact on the next vehicle purchase. Where as in accordance with the Factor analysis, the dependent variable that is Consumer preference on purchasing hybrid and electric vehicle and the independent variables categorized in to 5 broad categories as Influencing factors to purchase, Performance of the vehicle, Environmental consciousness, Range of the vehicle and Financial cost factor was rejected due to lack of reliability. Based on the findings, recommendations obtained from the respondents, policies and suggestions were made.

Keywords: **Consumer preference, Eco-friendly vehicles, Electric vehicle, Hybrid vehicles Theory of Planned Behavior**