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COMMERCIAL VEHICLE SENSORS: AWARENESS AND IMPACT OF AUTOMATED DRIVER ASSISTEDFEATURES ON CUSTOMERS

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ABSTRACT

Driver information systems are the most important units of the vehicle network which helps the driver as well as the customer to aware about the vehicle sensors. Vehicle innovation is progressing at a quick pace and numerous of vehicles on the road have advanced automated driver assist features. Advance sensor-based vehicles can possibly change car business and all aspects of the network will be influenced. Instrument clusters form an integral part of these systems which are synchronized using controller area network. The colour coded tell-tales and gauges are vital in life threatening situations like brake failure, engine malfunction, etc. It is prudent that all the functionalities of a given instrument cluster are perfect to the mark including the response times, buzzer warnings, etc. Due to various varieties of mandatory and optional sensors, drivers are facing complexity to figure out their requirement in head-up displays. However, sensors in HUDs are important for the safety of passengers and maintenance of vehicle and if advance self-sufficient sensors are received in the correct way, they will give huge financial, ecological and social advantages. Thus, knowing the customer perception about the importance, frequency of usage, rating, satisfaction level of all the sensors in HUD is being required to analyze in in a proper way. Therefore, this review towards satisfaction of drivers to these sensing systems is quite significant. The real time data has been collected from the respondents by preparing structured questionnaire and the collected data is analyzed using multivariate analysis like factor analysis. It is found that the selected attributes are grouped into five component which are highly correlated and helps the respondents to identify the best sensor devices for different category of vehicle.

KEYWORDS: *Instrument Cluster, Head-Up Display, Sensing Systems, Driver Satisfaction, Factor Analysis*

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