An Analysis of Driving Hours on the Driver Preferential Use of the dashboard: A Pilot Study

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Abstract. Vehicle accidents are a pervasive concern with far-reaching consequences for all parties. Accidents and crashes are often attributed to human mistakes. Some individuals engage in extended periods of driving, and others partake in shorter driving durations. This research delves into the varying driving durations, from extended journeys to shorter commutes. Distractions, whether originating from inside or outside of the car, may be present. The current study focuses on one of the interior factors of the dashboard, which plays a crucial role in facilitating automotive handling. The current study examines the issues regarding the integration of different safety and infotainment systems and their effect on traffic safety using the Optimized System Integration for Safe Interaction in Vehicles (OPTIVe) questionnaire to compare the preference of long route drivers (n = 9) and short route drivers (n = 15) between the age of 25 to 45. The IBM SPSS was used to administrate the Mann-Whitney U test; the results show that six basic features of dashboard design (i.e., Speedometer, Fuel Gauge, RPM, Oil pressure, Time on the dashboard, and outside temperature) are significant during long driving hours (M = 10.3, SD = 2.5) compared to short driving hours (M = 3.3, SD = 1.8). The current study provides the knowledge required to understand the impact of driving hours on dashboard use. The results highlight the importance of driver information, the instrument cluster, and warning symbols during long driving hours compared to short driving hours.

Keywords: User Preferences, user interface, automotive user interface OPTIVe, driving hours, infotainment.