

Empirical Study of Autonomous Vehicles and V2V for Driver Acceptance in the UK

Abstract

Traffic levels have increased such that congestion is a major occurrence in many urban areas creating uncertainty around journey times as well as more incidents with significant damage and accidents placing lives at major risk. This has resulted in the onset of the development of mobile connective technology, such as vehicle-to-vehicle (V2V) or vehicle-to-infrastructure (V2I) where vehicle manufacturers have begun to devise major ways to reduce the possibility of traffic delays and improve road safety. In this research, we supplement the Technology Acceptance Model (TAM) with driver context (from pervasive computing studies); technology attributes (compatibility; trust and safety) with some personal attributes to investigate nonprofessional and professional drivers' perspectives. Based on a survey of 203 respondents, Structured Equation Modelling was used to analyse UK drivers' perceptions of mobile connective technologies with findings of adoption factors for decision-makers at automotive manufactures.

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