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The Effects of Culture and Gender on Perceptions of Autonomous Vehicles

Comparing the Big Three (China, USA, and the EU) Automotive Markets

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The recent innovation of autonomous vehicle technology is expected to disrupt the automotive and transportation sectors. Contemporary examples of such technologies include the parking assistance, lane drift warning, and blind-spot monitoring features found in many luxury automobiles. Whereas future technologies may reduce or entirely remove the need for human driving intervention. Several companies are devoting substantial resources towards the development, refinement, and efficient production of these complex technologies. Yet, along with the technical development, an effort must be devoted towards encouraging consumer adoption in multiple cultural contexts. Although global consumers have become comfortable with human-operated automobiles, little is known about the effects of culture and gender on the consumer adoption of emerging disruptive technologies such as autonomous vehicles.

We plan to compare two recent autonomous technology adoption models, specifically a modified version of UTAUT2 (Venkatesh et al. 2012) and an emotional response-based model, in three cultural contexts and with varying degrees of autonomy. To assess cultural differences, we plan to gather perceptions regarding autonomous vehicles from consumers located in the three largest aggregate automotive markets: China, the United States of America, and the European Union. Our initial findings reveal that attitudes toward autonomous vehicles are formed through various psychological states and traits. Given the wealth of research devoted to examining cultural differences (e.g., Hofstede 2011), we believe that interesting differences will emerge in our comparison.

Technology firms, automotive manufacturers, and component suppliers will benefit from this study as our results will provide needed insight towards considerations and methods necessary to increase the likelihood of autonomous vehicle adoption. Furthermore, policymakers, transportation planners, and insurers may draw additional insights from our findings. A discussion of limitations and future research directions provide a scholarly research framework.

References

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