

Applying acceptability models to CCAM use cases in cross-border contexts: The 5G-MOBIX approach

Background

- The 5G-MOBIX is a project co-financed by the European Commission to “develop and test automated vehicle functionalities using 5G core technological innovations, along multiple cross-border corridors and urban trial sites”.
- The project will also evaluate the acceptability and acceptance of the developed solutions.

Goal

- To propose a self-assessment acceptability model to evaluate the CCAM use cases that will be trialed by the 5G-MOBIX project.

Proposed Acceptance Model

- Inspired on the Technology Acceptance Model (TAM; Davis, 1989) which explains acceptability of a technology based on the:
 - **Perceived ease-of-use;**
 - **Perceived usefulness.**
- Additional constructs derived from TAM extensions (e.g., Venkatesh & Bala, 2008).
- Additional constructs, relevant for automated driving (e.g., Zhang et al., 2019):
 - **Perceived Safety;**
 - **Trust.**
- The model (fig. 1) will be translated into a questionnaire for the participants taking part in the trials.

References

- Davis, F. D. (1989). Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319–340.
- Venkatesh, V., & Bala, H. (2008). Technology acceptance model 3 and a research agenda on interventions. *Decision Sciences*, 39(2), 273–315.
- Zhang, T., Tao, D., Qu, X., Zhang, X., Lin, R., & Zhang, W. (2019). The roles of initial trust and perceived risk in public's acceptance of automated vehicles. *Transportation Research Part C: Emerging Technologies*, 98, 207–220.

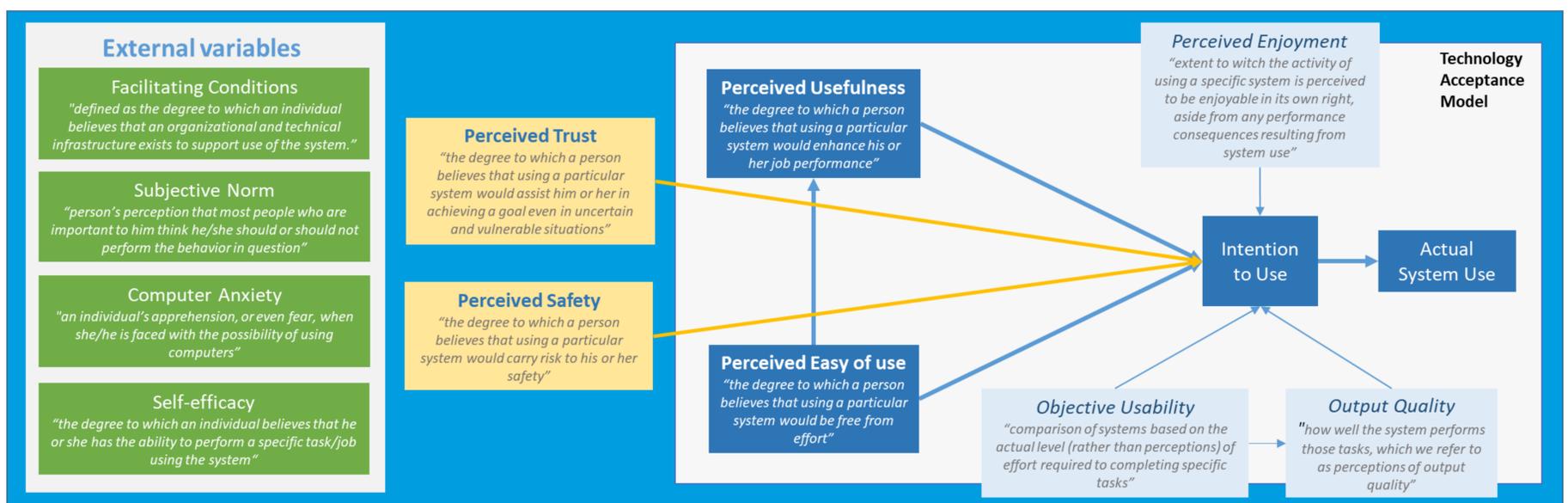


Fig. 1. 5G-MOBIX proposed acceptance model