

**Ilias Panagiotopoulos** PhD student, Department of Telematics and Informatics, Harokopio University of Athens (HUA), GREECE

## **User Acceptance and Vehicle Automation**

An Empirical Investigation on the European Consumers' Acceptance Towards Highly Automated Passenger Vehicles

**Research Motivation** 

Factors influencing HAPVs' adoption

- Automotive industry still lacks a widely accepted and used framework to assess technology acceptance towards the driving/usage of Highly Automated Passenger Vehicles (HAPVs)
- Few studies in the existing literature have studied in what extent European consumers intend to drive/use HAPVs in the future

## Methodology



- PDE plays the *biggest role* in European consumers' desire to drive/use HAPVs
- PFC, PRT, SI and PE appear to be important deciding factors
- Factor EE *failed* to reach significance
- Respondents in Northern Europe are more likely to drive/use HAPVs, contrary to those from Southern Europe

H#	Path	Standardized path coefficients β	p-value	Decision
H1	PE→BI	0.121**	< 0.01	Supported
H2	EE→BI	-0.008#	non-significant	Rejected
H3	SI→BI	0.107***	<0.001	Supported
H4	PFC→BI	0.187***	<0.001	Supported
H5	PDE→BI	0.215***	<0.001	Supported
H6	PRT→BI	0.107**	<0.01	Supported
	Age→BI	-0.005#	non-significant	
	Gender→BI	0.053*	< 0.05	
	Income->BI	0.045#	non-significant	
	Culture→BI	0.378***	< 0.001	

- Questionnaire were adults over 18 years were analysed using Survey old SPSS
- 57% stated that they feel extremely or quite safe when they are driving/using passenger vehicles today
- 80% believe that technology progress, until now, has extremely or quite improved the safety of their travels with passenger cars

## **Application of UTAUT model**



**43% strongly or somewhat agreed** with the statement *«I intend to drive/use HAPVs when they become available in the near future»* 



Fig.1. UTAUT-extended research model

Fig.2. European consumers' intension to drive/use HAPVs

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