University of Zagreb
Faculty of
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Sharing &Caring
COST Action

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Antecedents for participation in the sharing economy: Demographics, personality traits, and self-reported skills

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Acknowledgment

This is part of the work plan of STSM within COST Action , CA 16121From Sharing to Caring: Examining Socio-Technical Aspects of the Collaborative Economy -

- **Swapping…exchanging…collective purchasing… collaborative consumption… shared ownership… shared value… co-operatives… co-creation… recycling… upcycling… re-distribution… trading used goods… renting… borrowing… lending… subscription based models… peer-to-peer… collaborative economy… circular economy… pay-as-you-use economy… wikinomics… peer-to-peer lending… micro financing… micro-entrepreneurship… social media… the Mesh… social enterprise… futurology… crowdfunding… crowdsourcing… cradle-to-cradle… open source… open data… user generated content…**

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Why studying antecedents of sharing economy participation?

The world faces economic, social, environmental problems

Because…….

The sharing economy can promote factors that are central to the United Nations' Sustainable Development Goals (SDGs): economic growth, technological innovation, environmental sustainability, and social inclusion

- **And the adoption of sharing economy is uneven to certain population and the benefits of sharing economy are inaccessible for them.**

The sharing economy existed long ago….What is new?

Two types of sharing:

- sharing-in’ - which takes place within the family or friends, and
- ‘sharing-out’- when sharing involves deciding something between strangers (Belk, 2014).
- IT enabled and via platforms strangers from all over the world can help exchange goods and services.

This study

Who Shares Wins!

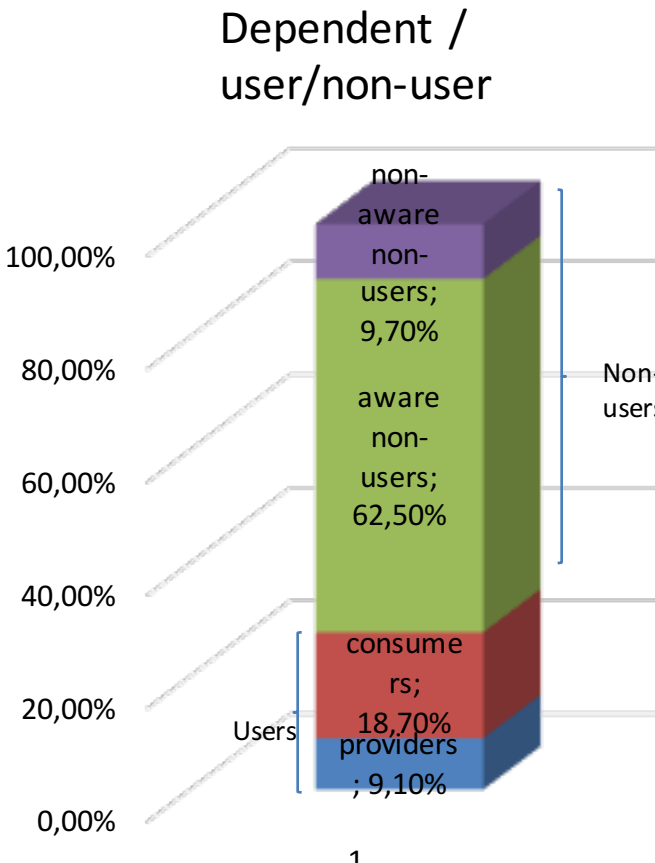
- Focuses on antecedents for participation:
- Demography: age, gender, education level, income level, working status, household size;
- Personality traits: trust, innovativeness, voluntarism and materialism;
- Skills: digital and online search
- Hypothesizing that can impact the likelihoods of sharing economy participation.

Literature Review

- Socio-economic antecedents of online participation -male, younger, higher educated, and higher income individuals tend to be more engaged online (Correa, 2010; Hargittai & Walejko, 2008; Schradie, 2011).
- Sharing economy participants -higher incomes (PWC,15; Cambel, 2012;Smith, 2016; Thebault-Spieker, 2017) higher education (PWC, 2015; Cambel, 2012; Smith, 2016;), younger adults (Cambel, 2012), and those who have higher levels of proficiency with technology (Van de Glind, 2013).
- Hsiao at al. (2018), surprisingly, do not find that sharing economy users are more likely to have higher trust in strangers, higher incomes, or more education.

Data

- Large survey in 12 European countries on the state of the sharing economy, as a part of a European Union Horizon 2020 Research Project on the sharing economy: *'Ps2Share 'Participation, Privacy, and Power in the Sharing Economy'*
- Over 6000 respondents
- Over 350 questions
- Conditionally on being:
  - provider
  - consumer
  - aware non-user
  - non-aware non-user



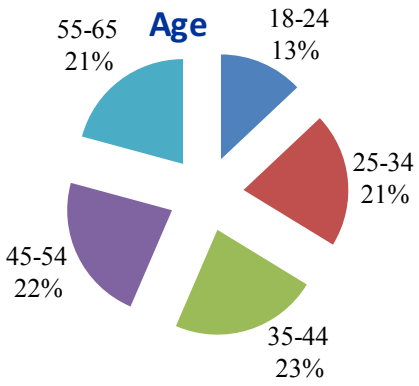
Methodology

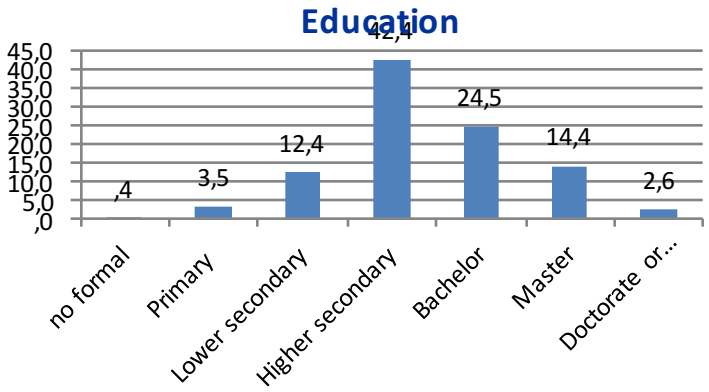
- Descriptive analysis
- Factor analysis - to reduce the number of variables.
- Logistic regression - to find out predictive influence of the independent variables on intention for sharing economy participation expressed as:

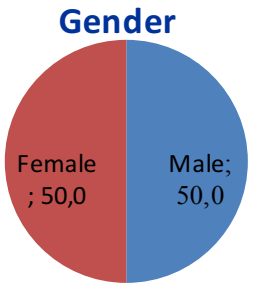
$$\ln(ODDS) = ln\left(\frac{\hat{\gamma}}{1-\hat{\gamma}}\right) = a+bX$$

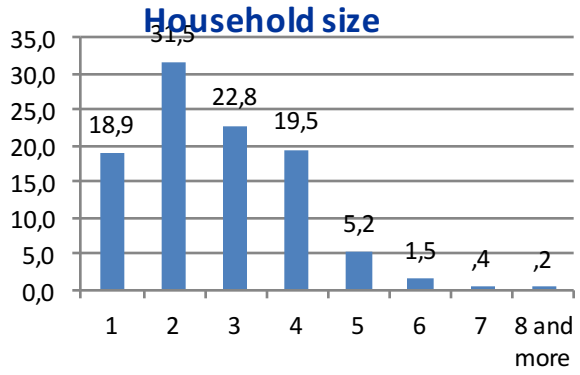
- Where $\hat{\gamma}$ is **the predicted probability of the event which is coded with 1 (user)** rather than with 0 (non-user). 1-$\hat{\gamma}$ is the predicted probability of the other decision, and X is our predictor variables.

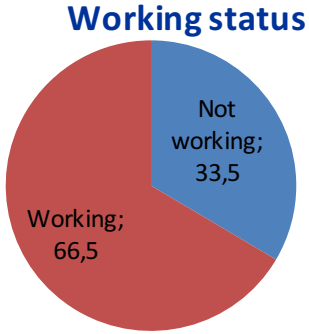
Demographics frequencies

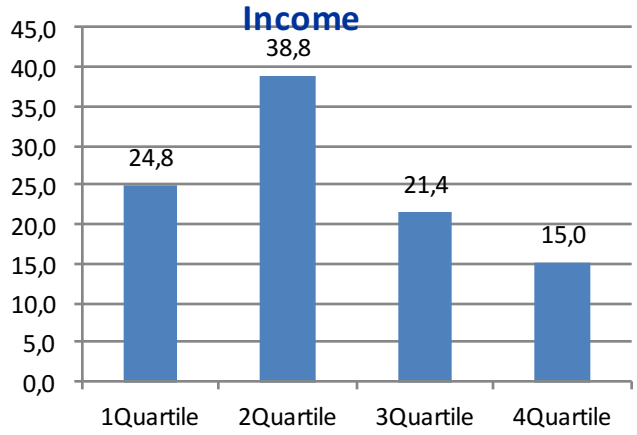












Factor Analysis results

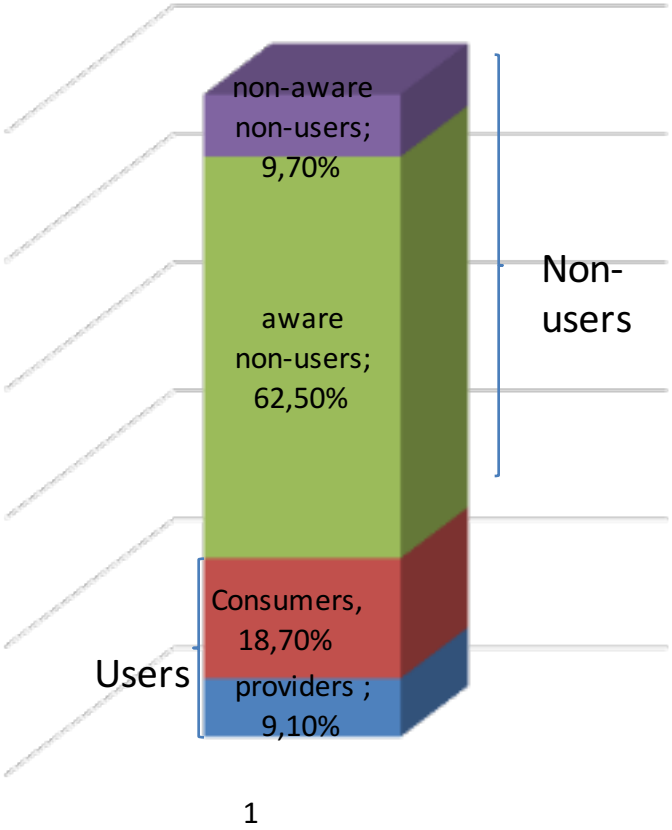
Factor/Cronbach alpha	Variables	mean	St dev.	Factor loadings
Digital skills/0,904	Advanced search	3,32	1,31	,778
	PDF	3,75	1,23	,723
	Spyware	2,83	1,38	,854
	Wiki	2,94	1,48	,773
	Cache	2,68	1,43	,833
	Phishing	2,75	1,41	,830
	Proxypod	1,60	1,03	,513
Innovativeness/0,902	look for ways to experiment	3,21	1,15	,845
	the first to try out	2,87	1,21	,805
	like to experiment	3,43	1,15	,842
Trust/0,885	General Trust in People	3,35	1,02	,893
	General Faith in Humanity	3,34	1,01	,868
	General Reliability of People	3,29	,994	,899
Voluntarism/0,826	volunteering to help	2,57	1,31	,813
	getting involved in issues	2,68	1,22	,823
	working with a group to solve a problem	2,36	1,20	,856
Online search/0,650	look for news	4,73	1,30	,635
	look for travel information	2,92	1,27	,715
	look for jobs	2,46	1,55	,575
	get product information	3,79	1,24	,704
Materializm/0,741	happier if I could afford more	3,32	1,19	,747
	like a lot of luxury	2,70	1,17	,795
	admire people with expensive things	2,48	1,19	,831

Hypothesis

- Age predicts the likelihood to be user(-)
- Gender predicts the likelihood to be user
- Income predicts the likelihood to be user
- Households size predicts the likelihood to be user(-)
- Education predicts the likelihood to be user
- Trust predicts the likelihood to be user
- Innovativeness predicts the likelihood to be user
- Materialism predicts the likelihood to be user
- Voluntarism predicts the likelihood to be user
- Digital skills predicts the likelihood to be user
- Online search predicts the likelihood to be user

100,00%
80,00%
60,00%
40,00%
20,00%
0,00%

Dependent / user/non-user



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Results of Binary logistic regression	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-0,39	0,026	231,344	1	0	0,677
Gender	0,018	0,064	0,082	1	0,775	1,019
Income	0,155	0,032	23,051	1	0	1,168
Household size	-0,065	0,025	6,68	1	0,01	0,937
Education	0,273	0,031	78,363	1	0	1,314
Trust	0	0,034	0	1	0,995	1
Innovativeness	0,016	0,036	0,202	1	0,653	1,016
Materialism	0,003	0,034	0,006	1	0,939	1,003
Digital skills	0,254	0,035	51,031	1	0	1,289
Voluntarism	0,237	0,031	56,885	1	0	1,267
Online search	0,299	0,038	61,269	1	0	1,349
Constant	-4,248	0,266	254,076	1	0	0,014

Conclusions

Results show that individuals younger than 45, with education higher than primary school, with income higher than first quartile, with higher self reported digital skills, who like to voluntarily help others, and who are searching for information frequently, are more likely to participate as providers or consumers in sharing economy. The research can help policy makers and managers to explore opportunities to support broader participation in the sharing economy.

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