Online Survey

Discovering User Preferences of Car Insurance

This survey is focusing on user preferences of contemporary car insurance programs. The survey is part of a research project at the Department of Computer Science at Friedrich-Alexander University Erlangen–Nuremberg (FAU). It is conducted in English, taking approximately 10 minutes to complete. This survey will be running until July 31, 2021.

For this survey to work properly, please activate JavaScript and deactivate any script blockers.

Eligibility
To be eligible for this study, you have to meet the following criteria:
- You have a driving licence
- You have a car insurance

For further information about the study "Discovering User Preferences of Car Insurance", please email juan.quintero@fau.de

Consent Form

I hereby agree to take part in this survey. The aim of this survey is to know your preferences of car insurance.

I consent to the collection, processing and use of my responses by the Friedrich-Alexander University Erlangen-Nürnberg (FAU) for research purposes. I am free to withdraw from the survey at any time and to delete my answers without any negative consequences. All information is anonymised for further evaluation of my collected data. My participation in this survey is completely voluntary.

I can withdraw my consent at any time by sending an email to juan.quintero@fau.de
- ○ I agree
- ○ I do not agree

Note By clicking "I agree" you indicate that you have read this consent form and agree to participate in this survey, providing your consent.

▷ When did you get your first driving licence?
○ Less than 1 year ago
○ 1 year ago
○ 2 years ago
○ 3 years ago
○ 4 years ago
○ 5 years ago
○ 6 years ago or more
○ I have never had a driving licence

▷ Please indicate your car insurance coverage
○ I have car insurance
○ I used to have insurance, but not anymore
○ I have never been covered by car insurance

Part 1

Welcome to the user study "Discovering User Preferences of Car Insurance"!

This survey is about user preference of Usage-Based Car Insurance (UBCI). UBCI is a car insurance model in which your insurance payment is based on your driving behaviour. This survey is focusing on users' attitude to UBCI.

Please watch the following video about Usage-Based Car Insurance (UBCI).

Explanatory video of UBCI

https://github.com/juan-quintero/privacy-concerns-and-attitudes-towards-ubi/blob/main/02-ubi-video-definition-perception.mp4

You can read the text from the video below or click the Next button to go forward.

Usage-Based Car Insurance (UBCI)

UBCI is a car insurance model in which your driving style influences your insurance payment. It is also known as Pay As You Drive (PAYD), Telematik-Tarif, or telematics insurance.

In UBCI, during your trips, you use a telematics device (mobile app or a special device) provided by the insurer for free. Through this device, data about acceleration, braking, GPS location, speed, and time of day that you drove are collected and shared with your insurer. You can get feedback on your driving performance using the insurer's mobile app or a website. Thereby, you can improve your driving behaviour.
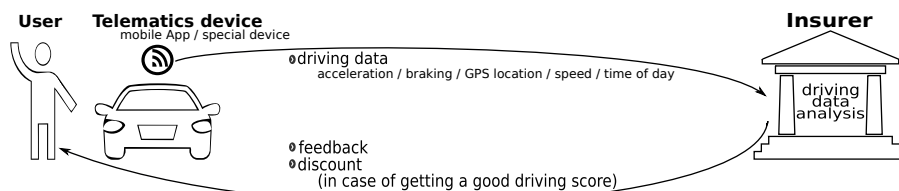
Your driving style will be evaluated based on the collected data. The insurer will offer you a discount on your next renewal only if you get a good driving score. However, the insurance payment will not increase even if you get a bad score.

Below you will find a quiz to test your understanding of UBCI. If you answer a question incorrectly, you will get a brief explanation.

Please answer the following questions.
Note
• UBCI stands for "Usage-Based Car Insurance"
• UBCI Insurer refers to an insurance company which offers a UBCI program

▷ If I have a bad driving score, the UBCI insurer will
○ Not change my insurance payment
○ Cancel my insurance contract
○ Increase my insurance payment
○ I do not know

▷ What information is gathered in UBCI?
○ My driving score
○ My driving data
○ My car model
○ I do not know

▷ For which purpose does the UBCI insurer provide feedback to you in UBCI?
○ To help me find free parking spaces
○ To provide me preventive car maintenance
○ To help me improve my driving style
○ I do not know

Part 2

▷ Please indicate your UBCI coverage
∘ I am currently covered by a UBCI program.
∘ I was covered by a UBCI program in the past, but I do not have it anymore.
∘ I have never been covered by a UBCI program.

Only for **current** users

▷ What is the name of your car insurance company?
∘ Admiral
∘ Allianz
∘ Aviva
∘ AXA
∘ Carrot Insurance
∘ CosmosDirekt
∘ HDI
∘ HUK-Coburg
∘ Signal Iduna
∘ UnipolSai
∘ I do not know
∘ Other

▷ For how long have you been covered by this insurance?
∘ Less than 1 year
∘ 1 year
∘ 2 years
∘ 3 years
∘ 4 years
∘ 5 years or more

Only for **former** users

▷ What was the name of the car insurance company that offered your last UBCI program?
- ○ Admiral
- ○ Allianz
- ○ Aviva
- ○ AXA
- ○ Carrot Insurance
- ○ CosmosDirekt
- ○ HDI
- ○ HUK-Coburg
- ○ Signal Iduna
- ○ UnipolSai
- ○ I do not know
- ○ Other

▷ For how long had you been covered by this insurance?
- ○ Less than 1 year
- ○ 1 year
- ○ 2 years
- ○ 3 years
- ○ 4 years
- ○ 5 years or more

▷ Why did you choose to terminate your last UBCI program?
- ☐ I am over the age restriction of the insurance
- ☐ I did not get a desirable discount
- ☐ My driving style did not improve
- ☐ I no longer have a car
- ☐ Driving rating was unfair
- ☐ UBCI usage distracted me too much during driving
- ☐ I had technical problems with the telematics device
- ☐ I encountered privacy issues with this insurance
- ☐ Telematics device was not easy to use
- ☐ I found a better offer from another insurer
- ☐ Other _____

Only for **potential** users

▷ What is the name of your car insurance company?
○ Admiral
○ Allianz
○ Aviva
○ AXA
○ Carrot Insurance
○ CosmosDirekt
○ HDI
○ HUK-Coburg
○ Signal Iduna
○ UnipolSai
○ I do not know
○ Other

▷ For long have you been covered by this insurance?
○ Less than 1 year
○ 1 year
○ 2 years
○ 3 years
○ 4 years
○ 5 years or more

Part 3

Items for current, potential, and former users are measured using a five-point Likert scale, with the anchors being "not at all concerned" and "extremely concerned." Please indicate the extent to which you are concerned about the following:

Privacy Concerns

Original version

Internet privacy concerns: "Concerns about opportunistic behavior related to the personal information submitted over the Internet by the respondent in particular" [1, p. 64]

Items [1]

• I am concerned about submitting information on the Internet, because of what others might do with it

• I am concerned that the information I submit on the Internet could be misused

• I am concerned that a person can find private information about me on the Internet

• I am concerned about submitting information on the Internet, because of what others might do with it

• I am concerned about submitting information on the Internet, because it could be used in a way I did not foresee

Adapted version

Concerns about opportunistic behavior related to the personal information shared with companies by the respondent in particular

Items. Current, Former, and Potential users

• Companies can share my information with other companies without my consent

• The information I share with companies could be misused by these companies

• Companies can infer private information from my data that I do not want to share with these companies

• The companies cannot secure my data from malicious parties

• Companies can intentionally use complex legal formulation in the terms to justify using my driving data in a way I did not foresee

Items for current, potential, and former users are measured using a five -point Likert scale, with the anchors being "strongly disagree" and "strongly agree."

Attitude to Driving

Original version
"Attitude towards driving" [2, p. 310]
Adapted version
Attitude towards driving car

Items. Current, Former, and Potential users [2]
- I am afraid of driving, and I try to avoid it
- Sometimes I have to drive, but generally, I prefer public transport
- To me driving is, after all, a way to move from one place to another
- I enjoy driving

My Perceived Driving Style

Original version
Driving Style is defined as "the degree to which a person drives carefully and cautiously" [3, p. 121]

Items [3]
- I usually hold an accurate distance to other vehicles
- I usually drive carefully and cautiously
- I usually adhere to speed limits

Adapted version
Degree to which drivers believe that they drive carefully, obeying traffic rules

Items. Current, Former, and Potential users
- I usually keep a safe distance from other vehicles during my driving
- I usually drive carefully and cautiously
- I usually keep to the speed limits
- I obey traffic rules

Other's Perceived Driving Style

Original version
Driving Style is defined as "the degree to which a person drives carefully and cautiously" [3, p. 121]

Items [3]
- I usually hold an accurate distance to other vehicles
- I usually drive carefully and cautiously
- I usually adhere to speed limits

Adapted version
Degree to which users believe that in their country of residence others drive carefully and cautiously, obeying traffic rules

Items. Current, Former, and Potential users
- People usually keep a safe distance from other vehicles in my country of residence
- People usually keep to the speed limits in my country of residence
- People usually drive carefully and cautiously in my country of residence
- People obey traffic rules in my country of residence

Part 4

Scenario

Only for **current** users

The following statements refer to your experience using your current UBCI program and to your current insurer.

Please indicate the extent to which you agree or disagree with each statement.

Note. Some questions might sound similar to each other. This is an intentional feature of this study.

Only for **former** users

Imagine that you are still covered by your last UBCI program.

According to this hypothetical situation, please indicate the extent to which you agree or disagree with each statement.

Note. Some questions might sound similar to each other. This is an intentional feature of this study.

Only for **potential** users

Imagine that your current insurer is offering a UBCI program and you have the option to change your car insurance policy to be covered by UBCI.

According to this hypothetical situation, please indicate the extent to which you agree or disagree with each statement.

Note. Some questions might sound similar to each other. This is an intentional feature of this study.

Part 5

Note

We used the conditional "would" for *potential* users to allow them to answer based on the proposed hypothetical scenario described in Part 4.

Items for current, potential, and former users are measured using a five-point Likert scale, with the anchors being "strongly disagree" and "strongly agree."

Behavioral Intention

Original version

"Degree to which a person has formulated conscious plans to perform or not perform some specified future behavior" [5, p. 214]

Items [4]

• I intend to continue using mobile Internet in the future

• I will always try to use mobile Internet in my daily life

• I plan to continue to use mobile Internet frequently

Adapted version

Degree to which a person has formulated a conscious intention to be or not to be covered by UBCI

Items. Current, Former users	**Items. Potential users**
• I intend to be covered by UBCI in the future if possible	• I intend to be covered by UBCI in the future if possible
• I will always try to be covered by UBCI if possible	• I would always try to be covered by UBCI if possible
• Given the chance to be covered by UBCI, I would do it	• Given the chance to be covered by UBCI, I would do it

Note. You can skip ranking items that you do not think are relevant.

All your answers must be different and you must rank in order.

Double-click or drag-and-drop items in the left list to move them to the right - your highest ranking item should be on the top right, moving through to your lowest ranking item.

▷ What are the most important features of UBCI that may influence your decision in favour of UBCI?

Features	Rank these features in order of most to least influential
Discount on my next renewal in case of getting a good driving score	
Fairness of computed driving rating	
Feedback on my driving style	
Improvement of my driving style	
Payment according to my driving style	
Privacy protection of my driving data	
Telematics device is easy to use	

▷ What are the most important features of UBCI that may influence your decision against UBCI?

Features	Rank these features in order of most to least influential
Age restriction of UBCI	
Collection of my driving data such as GPS location, acceleration, braking behaviour, speed, and time of day when I have driven	
Driving rating is unfair	
Driving style does not improve	
Getting an undesirable discount	
Privacy issues with UBCI	
Using UBCI while driving distracts me too much	
Telematics device is not easy to use	

▷ Optionally, you can provide further comments about your answers to the previous questions

Items for current, potential, and former users are measured using a five -point Likert scale, with the anchors being "strongly disagree" and "strongly agree."

Storage of driving data

Items. Current, Former, and Potential users
- My UBCI insurer
- Other company different from my UBCI insurer
- A device that I install in my car by myself
- A device installed in my car by certified personnel
- My phone

▷ Please indicate the extent to which you agree or disagree with the following statement.
Storage of driving data

Items. Current, Former, and Potential users
- All things being equal, I would prefer a UBCI provider that works without any data collection

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▷ Which of the following devices do you prefer to use for collecting your driving data?
☐ Black Box
  It is a professionally installed device, which is not portable. Usually it is installed in a no visible place in your car
☐ Dongle
  It is a self-installed "plug and play" device provided by an insurance company. It usually connects to the cigarette lighter or OBD (On-board diagnostics) port
☐ Embedded System
  It is included in the recently made cars during the fabrication process. It can gather driving data from the vehicle's engine control unit
☐ Smartphone App
  Smartphones commonly have a lot of sensors, such as GPS, accelerometers, gyroscope, and a large data storage capacity. They can be used for gathering driving data
☐ I do want to use any device
☐ I do not know

▷ Optionally, you can provide further comments about your answer to the previous questions

▷ Which of the following information are you willing to share with your UBCI insurer for the purpose of evaluating your driving style?

☐ How smooth you increase your speed
☐ How smooth you brake
☐ How smooth you drive around curves
☐ How many kilometers you drove
☐ Your geographical location during the trip
☐ Your speed during the trip
☐ Time of the trip
☐ Type of road you drive on
☐ Recording of your trip using a dashcam
☐ I do not want to provide any information
☐ Other _____

Items for current, potential, and former users are measured using a five -point Likert scale, with the anchors being "strongly disagree" and "strongly agree."

▷ I would like to share my driving data for the purpose of evaluating my driving style with

Driving data sharing

Items. Current, Former, and Potential users

- Academic researchers
- Government agencies
- Marketing companies
- My insurer
- Other insurers
- Road traffic authorities

▷ Optionally, you can provide further comments about **your sharing driving data preferences for specific purposes**

▷ In your current/last UBCI program, have you got feedback on your driving performance?

○ Yes

○ No

If the answer is "Yes"

▷ I get/got in my current/last UBCI program feedback about my driving performance

☐ After each trip

☐ During each trip

☐ Once per day

☐ Once per week

☐ Once per month

☐ I do not want to get any feedback

▷ I get/got in my current/last UBCI program feedback about my driving performance through these channels

☐ E-mail

☐ Letter

☐ Meeting with a UBCI insurer's employee

☐ UBCI insurer's website

☐ SMS notification on my mobile phone

☐ Notification on a mobile app

☐ Other: _____

Items for current, potential, and former users are measured using a five-point Likert scale, with the anchors being "strongly disagree" and "strongly agree."

▷ Please indicate the extent to which you agree or disagree with the statement described below

Items. Current/Former users	**Items. Potential users**
• I pay/paid attention to the feedback on my driving performance	• I would pay attention to the feedback on my driving performance
• The feedback on my driving performance helps/helped me improve my driving style	• The feedback on my driving performance would help me improve my driving style
• The tips provided in the feedback on my driving performance make/made driving more dangerous	• The tips provided in the feedback on my driving would make driving more dangerous

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If the answer is "No"

▷ I would like to get feedback on my driving performance

☐ After each trip

☐ During each trip

☐ Once per day

☐ Once per week

☐ Once per month

☐ I do not want to get any feedback

▷ I would like to get feedback on my driving performance through these channels

☐ E-mail

☐ Letter

☐ Meeting with a UBCI insurer's employee

☐ UBCI insurer's website

☐ SMS notification on my mobile phone

☐ Notification on a mobile app

Only for **current** users

▷ Compared to your expectations, the actual price you paid after applying the discount is:
☐ Much less than expected
☐ Less than expected
☐ As expected
☐ More than expected
☐ Much more than expected

Only for **former** users

▷ Compared to your expectations, the price you paid after applying the discount was:
☐ Much less than expected
☐ Less than expected
☐ As expected
☐ More than expected
☐ Much more than expected

Thank you for answering the questions related to the hypothetical situation.

Please answer some further questions about your driving experience and demographics.

Part 6

▷ What is your annual mileage?
○ Less than 5.000 km / 3.100 miles
○ 5.000 – 9.999 km / (3.100 – 6.199 miles)
○ 10.000 – 19.999 km / (6.200 – 12.399 miles)
○ Over 20.000 km / 12.400 miles
○ I do not know

▷ What is your year of birth?
○ Prefer not to disclose
○ 2002
○ ...
○ 1920
▷ Which gender do you identify most with?
○ Female
○ Male
○ Diverse
○ Prefer not to disclose

▷ In what country do you currently live?
○ Prefer not to disclose
○ Afghanistan
○ ...
○ Zimbabwe
○ Other: _____

▷ Please indicate your highest school education level
○ No school certificate
○ Primary school/elementary school or equivalent
○ Middle school/secondary school or equivalent (not meeting university entrance require-
  ments)
○ High school or equivalent (meeting university entrance requirements)
○ Prefer not to disclose
○ Other: _____
▷ Please indicate your highest completed academic/professional education level
○ No completed academic/professional education
○ Completed vocational training
○ Bachelor's degree or equivalent
○ Master's degree or professional degree (M.D., J.D., etc.) or equivalent
○ Ph.D. (doctoral degree)
○ Prefer not to disclose
○ Other: _____

▷ What is your main occupation currently?
○ Pupil/student (pre-college)
○ Student (college, university)
○ Employee, worker, civil servant
○ Self-employed/freelance
○ Homemaker
○ Unemployed
○ Pensioner
○ Prefer not to disclose

▷ Feel free to use the field below to share further comments with us.

References

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[3] Peter Mayer. *Empirical Investigations on User Perception and the Effectiveness of Persuasive Technologies*. PhD thesis, University of St. Gallen, 2012.

[4] Viswanath Venkatesh, James YL Thong, and Xin Xu. Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, 36(1):157–178, 2012.

[5] Paul R Warshaw and Fred D Davis. Disentangling behavioral intention and behavioral expectation. *Journal of Experimental Social Psychology*, 21(3):213–228, 1985.