SIP-adus Workshop 2022

Study on Assessment and Strategy of Promotion for Social and User Acceptance of Automated Driving

Background and Contents of the Survey

Background

- **Aging Population**
  - + Many seniors want to continue living in their current neighborhoods.
  - + Few people can rely on family or community for mobility needs.
- **Shrinking public transportation**
  - * Public transportation services rely on fewer drivers.
  - * Many people depend on their own cars (POV), especially in suburban and rural areas.
- **Enhancing quality of life**
  Accessible transportation is a vital part of modern life

➡ ★ Increasing the safety of POV(ADAS).
★ Solving Public Transportation Challenges.

Questionnaire Survey on Automobiles and Automated Driving

- **Research by Dai-ichi Life Research**
  Institute Inc.(3,000 samples)(2018)
- **METI & MLIT commissioned project**
  The 1st Survey(12,400 samples)(2019)
- **METI & MLIT commissioned project**
  The 2nd Survey (12,400 samples)(2020)
- **METI, MLIT and SIP commissioned project**
  The 3rd Survey (24,583 samples)(2021)
- **METI, MLIT and SIP commissioned project**
  The 4th Survey (20,631 samples)(2022)
  Target：People aged 18-69 in Japan,
  Period：January & February 2022
  Method：Online survey

The Contents of Surveys (extract)

- ◆Driver's license, purpose of driving, type of driving, number of cars owned
- ◆Public transportation (distance to station and obstacles)
- ◆Regional characteristics, mobility awareness, mobility in old age
- ◆Driving assistance functions
- ◆Attitudes toward place of residence (community commitment/civic pride)
- ◆Satisfaction with mobility in daily life
- ◆Overall acceptance score of automated driving by type
- ◆Subjective understanding of automated driving
- ◆Acceptance of automated driving by item (for scale)
- ◆Consumer commitment
- ◆What you should do as a user for diffusion
- ◆Expectations for specific uses of automated driving
- ◆Evaluation of being connected (V2X)
- ◆Awareness of consumer information provision

Distribution of Acceptance Scores by Factors

What is "Acceptance" ? ➡

①Lifestyle Change	②Learning	③Cost	④Uniqueness / technical limits
Accepting various changes in daily life due to the spread of automated driving.	Accepting various learning curves associated with the spread of automated driving.	Accepting various cost burdens associated with the spread of automated driving.	Accepting the unique properties of automated driving as well as the limits and risks of the technology.

★Local Residents' Attitudes and Acceptance of Automated Driving

People who are aware of local issues,
who are an active participant in their community,
who want to live in their current neighborhoods for a long time.

➡ generally higher average scores for each acceptance factor

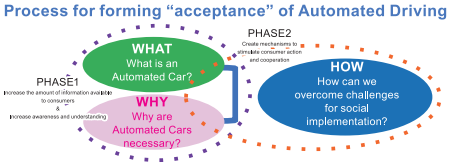
Process for Forming "Acceptance" of Automated Driving

KPI / KGI Evaluation to Form Social Acceptance of Automated Driving

	Region		Items for Actions (Fixed)	Items that need to be checked (Updated annually)
1	KPI	P:① Examination of foundation	Strategy creation / cooperation in the entire frame and individual projects <Frame & Strategy>	1. Based on existing information, status, and last year's results, we created a medium- to long-term comprehensive strategy and plan. 2. Each project has a clear progression and goal. 3. Projects do not overlap in scope or activity (Comprehensiveness, appropriate target selection, etc.)
2	KPI		Collecting and understanding information about the target and soil <Target Grasp>	1. Sufficient information was collected and understood in advance about the objects (society, region, people, etc.) that are trying to foster social acceptability.
3	KPI	P:② dissemination	Selection / editing / processing of information for dissemination <Adaptation>	1. For information dissemination, the selection of appropriate information according to the target user group was examined. 2. Edited and processed information according to the target user group for information dissemination.
4	KPI		Information dissemination means / media / place <Means>	1. Appropriate information dissemination methods, media, and platforms were used to disseminate information to the subjects. 2. The viewpoint of SOCIETY 5.0 (physical / virtual fusion) was realized.
5	KPI		Experience opportunity creation ・UX <Experience>	1. Realistic customer experience created opportunities for the subject to personalize the issue.
6	KPI	P:③ Reception and Diffusion	Feedback / interactivity <Communication>	1. The impact of the information was verified through the reaction from the subjects to the information and the interaction with the target. 2. Through the reaction from the other party to the information and the interaction with the target, improvement points regarding the content and method of the transmitted information and the acquisition of new ideas were discovered.
7	KPI		Information diffusion / social interest <Expansion>	1. The content of activities and transmitted information were linked to the spread of related information on mass media, social media, etc. 2. A derivative effect of information transmission from person to person was created. 3. The traction effect as an "innovator , early adopter" was brought out by improving satisfaction of existing users.
8	KGI	GOAL	Understanding in consumers <Understanding>	1. Improved consumer understanding of autonomous driving ADAS functions. 2. Intrinsic behavior of consumers trying to understand autonomous driving / ADAS functions was encouraged.
9	KGI		Consumption / use behavior <Use>	1. Consumers understand social issues and their own situations and link them to the purchase of related products, services and functions. 2. Started using products, services, and functions that people already own
10	KGI		Social acceptance in consumers <Acceptance>	1. Consumers are willing to accept each of the potential consequences of the introduction of autonomous driving. ①Lifestyle Change ②Learning ③Cost ④Uniqueness / technical limits

	Action	Keywords
Sustaining Livelihoods	・Create and maintain a means of transportation that fits the local environment and community needs ・Development of mobility infrastructure that enables people to continue mobility even after they have lost their driver's license or their physical functions due to aging, illness, disability, or other causes. ・Ensure safety in transportation ・Foster awareness around the use of diverse mobility systems and technology by diverse users	・Sustainability ・Maintain daily life ・Safety and security ・Acceptance of inconvenience
Visualization of effects	Recognition and Visualization of the impact (financial and non-financial value) of mobility ① Economic benefits (direct and indirect) e.g. fare revenue, improved circulation, regional revitalization, lower social security costs ② Effects on health e.g. Disease prevention, mental health improvement, healthy life extension ③ Creation of connection and enjoyment e.g. Creation of face-to-face contact opportunities, rides as a target of preference	・Well-being ・Experience of happiness ・Joy ・Improved quality of life ・Awareness of advantages and disadvantages

Process for forming "acceptance" of Automated Driving



【Key Message】

The acceptance of AD does not mean simply acknowledging the existence of It.
Recognizing social issues surrounding AD, we need to know what AD can/cannot do, what rules are necessary, and what we can do to use AD effectively.
To do so, the key is how to get people involved.

DAI-ICHI LIFE RESEARCH INSTITUTE INC.
Dai-ichi Life Group