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Consumer Perception Towards AI-Enabled Autonomous Driving Technology

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Abstract

The rise of electric cars in the car industry marks a big change driven by better technology and concern for the environment. This study looks closely at what people in North India think about electric cars. We're using a survey with questions that have multiple-choice answers, sent out using Google Forms. We asked 150 people, choosing them based on convenience. Our goal is to understand how people in North India feel about switching to safer and more efficient electric cars. We want to see how AI-powered self-driving technology can fit in with improving roads. Even though there are problems like finding places to charge electric cars, how long it takes to charge them, how much they cost, and how long their batteries last, we need smart solutions. By understanding what people think and by using self-driving technology, we can tackle these problems better.

Keywords - Electric vehicles, Automotive industry, AI-enabled autonomous driving technology and Environmental Imperatives

1. Introduction

The market would rise to $94.23 billion by 2021 and increase further to $1808.44 billion by the end of 2030 with a CAGR of 38.8% (Nova OneAdvisor). Notably, it holds that the civil sector will be highly dominant in the year 2021 with over 91% revenue share while North America takes the lead in having over 46% market

share. At the same time, Asia-Pacific is emerging as a growth beacon expected to grow at a CAGR of 42.4% from 2022 through to 2030.

In fact, autonomous vehicles are largely dominated by passenger cars which had an estimated revenue share of around 84% during the year whilst partially autonomous vehicles led technological progress at roughly about 93.2%. Due to AI advances, automotive technology has witnessed a change from self-driving automobiles toward autonomous mobility options fuelled by AI, ML algorithms, lidar radar GPD and computer vision.

Under this dynamic global context, North India provides an interesting microcosm for examining consumer attitudes towards AI assisted autonomous vehicles. Our research endeavours to delve into the intricate tapestry of consumer sentiments in North India, shedding light on preferences and concerns surrounding AI-driven autonomy.

2. Literature review

Research into what Indian consumers think about AI-driven autonomous driving technology in electric vehicles (EVs) shows a mix of concerns about the environment, advancements in technology, and government policies. Jena (2020) uses big data analysis to see how Indian consumers feel about EVs, stressing the need for eco-friendly transportation because of climate change and air pollution. Joshi, Malhotra, and Singh (2022) look at how government rules influence whether people want to use EVs, recognizing problems like infrastructure and what people think. Ahmed et al. (2021) point out how AI helps make EV batteries better, improves charging stations, and helps EVs work well with smart power grids, which are all important for lots of people to start using EVs. Aravamudhan et al (2022) look at how AI affects the EV industry, showing its importance, how it's used, and how it could help India's economy grow. All this research shows it's crucial to understand what consumers think, how governments help, and how AI fits in when we're talking about making transportation more sustainable. This sets the stage for studying what people think about AI-driven autonomous driving in EVs.

3. Research Gap

Even though there's plenty of research about electric vehicles (EVs) and how people use them, there's a gap in understanding what people in North India specifically think about AI-powered autonomous driving technology. Most research has looked at the technology itself, how it helps the environment, and what rules affect it. They've talked a lot about how AI can make batteries better, improve charging stations, and make traffic smoother. But they haven't paid much attention to what people in places like North India think about it. This gap shows that we need to study how the culture and society of North India affect what people there think about AI-driven autonomous driving. This will help us understand if people in North India will adopt this new way of getting around.

4. Research Methodology

In this study, we're using a method that looks at numbers to understand what people in North India think about AI-driven autonomous driving technology. We're not asking everyone in North India, just the people who are easy to reach, using what's called convenience sampling. We're giving them a questionnaire that asks about different things, like how much they know about this technology, if they think it's good for the environment, how safe they feel with it, and what might make them want to use it for their everyday travel. We're also asking about things like if they think the infrastructure is ready for this technology and what they think about government rules. Once we collect the data, we'll use math to summarize it and see if there are any connections between the different things we asked about. We're making sure that everyone who participates does so because they want to, and we're keeping their answers private and anonymous. We know there might be some issues with how we're choosing who to ask, and that people might not always tell us everything truthfully, but we're aware of these limitations. In the future, we might try different ways of asking people questions and keep track of changes over time for a better understanding.

5. Data Analysis and Result:

5.1 Analysis of Demographic profile of the participants

Demographic variables	Particulars	Frequency	Percent
Age	18-24	36	24.00
	25-34	25	16.67
	35-44	19	12.67
	45-54	35	23.33
	55-64	19	12.67
	65 and above	16	10.67
	Total	150	100.00
Gender	Female	59	39.33
	Male	91	60.67
	Total	150	100.00
Qualification	Bachelor’s degree	46	30.67
	Doctorate degree	31	20.67
	High school or below	7	4.67
	Master’s degree	62	41.33
	No formal education	4	2.67
	Total	150	100.00
Employment	Private Company	56	37.33

	Public Company	25	16.67
	Self Employed	28	18.67
	Unemployed	41	27.33
	Total	150	100.00
Income	25000-50000	22	14.67
	50000-100000	59	39.33
	Above 100000	30	20.00
	Less than 25000	11	7.33
	Unsalaried	28	18.67
	Total	150	100.00
Marital	Divorced	8	5.33
	Married	74	49.33
	Single	68	45.33
	Total	150	100.00
Family Type	Joint family	52	34.67
	Nuclear family	98	65.33
	Total	150	100.00

Age: Most people who took part in the survey were between 18 and 24 years old, making up about a quarter of all participants. After that, there were quite a few people in the 45-54 and 25-34 age groups, making up around 23.33% and 16.67% respectively. The participation rates for the age groups of 35-44, 55-64, and 65 and above were quite similar, ranging from about 10.67% to 12.67% of the total respondents.

Gender: More men took part in the survey than women, with about 60.67% of respondents being male and 39.33% female.

Education Qualification: Most of the respondents had a Master's degree, making up about 41.33% of the total sample. After that, about 30.67% had a Bachelor's degree, and 20.67% had a Doctorate degree. Only a small number of respondents had a High school diploma or less (about 4.67%), and even fewer had no formal education (about 2.67%).

Employment Status: The largest group of respondents worked in Private Companies, making up about 37.33% of the total sample. After that, about 18.67% were Self-Employed, and 16.67% worked in Public Companies. About 27.33% of respondents reported being Unemployed.

Income: Most respondents fell into the income bracket of 50000-100000. They made up about 39.33% of the total sample. After that, about 20.00% earned Above 100000, and about 14.67% earned 25000-50000. About 18.67% were Unsalaried, and only about 7.33% earned Less than 25000.

Marital Status: The majority of respondents were Married, making up about 49.33% of the total sample. After that, about 45.33% were Single, and about 5.33% were Divorced.

Family Type: Most respondents lived in Nuclear families, about 65.33% of them, while about 34.67% lived in Joint families.

5.2 Analysis of Perception Towards AI-Enabled Autonomous Vehicles:

Figure Showing the Perception Towards AI-Enabled Autonomous Vehicles.

Interpretation:

Familiarity with AI in Autonomous Vehicles (AVs): It seems a good number of participants, about 42.00%, found the concept of AI in autonomous vehicles quite intriguing, rating it a respectable 4. Another significant portion, around 31.33%, were genuinely enthusiastic, giving it a top rating of 5. However, not everyone was fully convinced – approximately 4.00% and 6.67% respectively expressed reservations or uncertainty.

Environmentally Friendly: Interestingly, a notable percentage, about 8.67%, were not entirely convinced of the environmental friendliness of AI-powered autonomous vehicles, rating it a modest 2. Meanwhile, around 25.33% seemed to be on the fence, assigning a neutral rating of 3. On the brighter side, a substantial 42.67% believed in their eco-friendliness (rating it a commendable 4), and about 23.33% were staunch advocates, assigning it the highest rating of 5.

Road Safety: The majority of respondents, approximately 39.33%, displayed confidence in AI-enabled autonomous vehicles improving road safety, with a solid rating of 4. Additionally, around 18.67% were notably optimistic, giving it an exceptional rating of 5. However, there were still dissenting voices – a marginal 0.67% and 12.67% respectively expressed strong disagreement or disagreement.

AI Enhances AV Efficiency: Many participants, comprising around 42.00%, believed in the potential of AI to enhance the efficiency of autonomous vehicles, offering a commendable rating of 4. Another notable 21.33% were notably optimistic, giving it a perfect 5. However, a minority, approximately 2.00% and 7.33% respectively, held reservations.

AI-enabled Autonomous in Daily Commute: A significant proportion of participants, about 42.00%, saw promise in AI improving the efficiency of autonomous vehicles for daily commutes, marking it with a commendable rating of 4. Furthermore, around 21.33% expressed strong optimism, assigning it a top rating of 5. Nevertheless, there were some skeptics – around 2.00% and 7.33% respectively remained unconvinced.

Cost, Convenience and Features Drive Autonomous Driving Adoption: In considering the factors influencing the adoption of autonomous driving technology, a considerable majority, around 54.00%, recognized the influence of factors like cost, convenience, and advanced features, rating them highly with a commendable 4. Moreover, about 24.00% were resolute in their belief, assigning it the highest rating of 5. Nonetheless, a small minority, approximately 2.67% and 4.00% respectively, expressed strong disagreement or disagreement.

Infrastructure Readiness: When it comes to assessing if North India's infrastructure is ready for AI-enabled autonomous vehicles, opinions varied. A small group, around 4.00%, strongly disagreed, giving it a low rating of 1. Another 8.67% weren't too convinced either, rating it a 2. However, a notable 21.33% were unsure about the adequacy of the current infrastructure. On the flip side, a good chunk, comprising 43.33%, believed that the infrastructure is indeed ready for such vehicles, rating it a solid 4. And interestingly, about 22.67% were very confident, giving it a top rating of 5.

Government Policy Influence: Participants also had diverse opinions on the impact of government policies on consumer acceptance of AI-enabled autonomous vehicles in North India. A small minority, roughly 2.00%, strongly disagreed that government policies matter, giving it a low rating of 1. Another 6.67% weren't fully convinced, rating it a 2. However, a significant portion, around 19.33%, weren't sure about the statement. On the other hand, a majority, comprising 43.33%, agreed that government policies indeed play a significant role, rating it a commendable 4. Additionally, about 28.67% were very convinced, giving it the highest rating of 5, highlighting the perceived influence of government regulations on consumer acceptance.

5.3 Anova

Exploring Age-Related Variations in Perceptions Towards AI-Enabled Autonomous Driving Technology: An ANOVA Analysis

One-Way ANOVA (Welch's)

	F	df1	df2	p
Familiar	2.267	5	59.7	0.059
EnviroFendly	0.768	5	57.5	0.577
Safety	1.728	5	59.2	0.142
Efficiency	1.745	5	59.2	0.138
PreferDaily commute	3.234	5	61.0	0.012
CCAf	3.214	5	61.1	0.012
infrastructure	2.331	5	61.6	0.053
GovtPolicies®	3.745	5	62.1	0.005

In our study, we set out to explore how individuals across different age groups perceive AI-enabled autonomous driving technology, examining various dimensions such as familiarity with AI, environmental friendliness, safety, efficiency, preference for daily commute, factors influencing adoption, infrastructure readiness, and governmental policies and regulations. Through Welch's ANOVA analysis, we aimed to unravel any age-related variations in these perceptions.

Familiarity with AI in Autonomous Vehicles (Familiar):

Our analysis suggests that regardless of age, people exhibit similar levels of familiarity with AI. This finding underscores a sense of universality in understanding AI technology among individuals, irrespective of generational differences.

Environmentally Friendly (EnviroFendly):

Across diverse age cohorts, there appears to be a shared consensus on the environmental friendliness associated with AI-enabled autonomous driving. This collective viewpoint suggests a common appreciation for the potential environmental benefits of this technology.

Road Safety (Safety):

Interestingly, age does not seem to be a significant factor influencing perceptions of safety concerning AI-enabled autonomous driving. This implies a consistent concern for safety across different age groups, highlighting a shared priority in ensuring the safety of autonomous vehicles.

AI Enhances AV Efficiency (Efficiency):

Similarly, perceptions of efficiency do not exhibit notable discrepancies based on age. It appears that individuals of all ages perceive AI-enabled autonomous driving as being equally efficient, indicating a shared understanding of its potential effectiveness.

AI-enabled Autonomous in Daily Commute (PreferDaily commute):

One notable deviation emerges regarding the preference for daily commute among various age groups. This suggests that age may indeed influence individual preferences and behaviors concerning commuting habits, reflecting unique lifestyle choices or needs across generations.

Cost, Convenience and Features Drive Autonomous Driving Adoption (CCAf):

Age emerges as a significant factor in shaping perceptions of the factors influencing the adoption of AI-enabled autonomous driving technology. This finding underscores the importance of recognizing the diverse considerations and priorities that different age groups may have when contemplating the adoption of such transformative technology.

Infrastructure Readiness:

Surprisingly, age does not significantly impact perceptions of infrastructure readiness for AI-enabled autonomous driving. This suggests a consistent perspective across different age groups regarding the readiness of infrastructure to support autonomous vehicles, emphasizing a shared outlook on this aspect.

Government Policies and Regulations (GovtPolicies®):

Age does appear to influence perceptions of governmental policies and regulations related to AI-enabled autonomous driving technology. This indicates varying expectations or concerns among different age groups regarding the regulatory framework governing autonomous vehicles.

5.4 Exploratory Factor Analysis

Factor Loadings

	Factor		
	1	2	Uniqueness
Familiar with the concept of AI and its use in autonomous vehicles		0.699	0.480
AI-enabled autonomous vehicles are environmentally friendly		0.768	0.468
AI-enabled autonomous vehicles will significantly improve road safety		0.478	0.565
AI can improve the efficiency of autonomous vehicles	0.451	0.333	0.513
AI-enabled autonomous vehicle for my daily commute	0.654		0.438
Factors such as cost, convenience, and advanced features would influence your decisionto adopt autonomous driving technology in the future	0.733		0.542
The current infrastructure in North India is well-equipped to support the widespread useof AI-enabled autonomous vehicles	0.453	0.379	0.455
Government policies and regulations play a significant role in shaping consumer acceptance of AI-enabled autonomous vehicles in North India	0.745		0.489

Note. 'Minimum residual' extraction method was used in combination with a 'oblimin' rotation

Factor 1 associated with perceptions related to the concept of AI in autonomous vehicles, environmental friendliness, road safety improvement, daily commute, and government policies. These variables load relatively high on Factor 1, indicating that they share common variance.

Factor 2 associated with perceptions related to efficiency, factors influencing adoption, and infrastructure readiness. These variables load relatively high on Factor 2, suggesting a distinct but related dimension of perceptions.

Factor Statistics

Summary

Factor	SS Loadings	% of Variance	Cumulative %
1	2.23	27.8	27.8
2	1.82	22.8	50.6

Inter-Factor Correlations

	1	2
1	—	0.573
2		—

Factor 1 explains approximately 27.8% of the variance in the data, while Factor 2 explains approximately 22.8% of the variance. Together, these two factors account for 50.6% of the total variance in perceptions towards AI-enabled autonomous driving technology.

There is a moderate positive correlation (0.573) between Factor 1 and Factor 2, suggesting some degree of association between the two factors.

Model Fit

Model Fit

Model Fit Measures

	RMSEA 90% CI				Model Test		
RMSEA	Lower	Upper	TLI	BIC	χ^2	df	p
0.0162	0.00	0.0841	0.997	-51.5	13.6	13	0.403

The Root Mean Square Error of Approximation (RMSEA) value of 0.0162 suggests a good fit of the model to the data. The 90% confidence interval (CI) for RMSEA (0.00 - 0.0841) also supports the adequacy of the model fit. Additionally, the Tucker-Lewis Index (TLI) value of 0.997 indicates a good fit of the model.

Assumption Checks

KMO Measure of Sampling Adequacy

	MSA
Overall,	0.872
Familiar with the concept of AI and its use in autonomous vehicles	0.870
AI-enabled autonomous vehicles are environmentally friendly	0.841
AI-enabled autonomous vehicles will significantly improve road safety	0.883
AI can improve the efficiency of autonomous vehicles	0.902
AI-enabled autonomous vehicle for my daily commute	0.899
Factors such as cost, convenience, and advanced features would influence your decision to adopt autonomous driving technology in the future.	0.868
The current infrastructure in North India is well-equipped to support the widespread use of AI-enabled autonomous vehicles.	0.875
Government policies and regulations play a significant role in shaping consumer acceptance of AI-enabled autonomous vehicles in North India	0.823

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is overall high (0.872), indicating that the variables included in the analysis are suitable for factor analysis. Additionally, individual KMO values for each variable are above 0.7, further supporting the adequacy of the data for factor analysis.

5.5 Correlation Matrix

		Age	Gender	EduQua	EmpStat	IPM	MaritalSta	FamilyTyp	Familiar	EnviroFendly	Safety	Efficiency	PreferDailycom	CCAf	inf
Age	Pearson's r	—													
	p-value	—													
Gender	Pearson's r	0.013	—												
	p-value	0.877	—												
EduQua	Pearson's r	0.306	0.046	—											
	p-value	< .001	0.577	—											
EmpStat	Pearson's r	-0.321	-0.031	-0.262	—										
	p-value	< .001	0.704	0.001	—										
IPM	Pearson's r	0.050	0.065	0.059	0.292	—									
	p-value	0.546	0.427	0.470	< .001	—									
MaritalSta	Pearson's r	0.735	-0.032	0.166	-0.256	0.018	—								
	p-value	< .001	0.693	0.043	0.002	0.829	—								
FamilyTyp	Pearson's r	0.140	-0.013	0.018	-0.125	-0.007	0.138	—							
	p-value	0.088	0.875	0.824	0.127	0.934	0.092	—							
Familiar	Pearson's r	-0.098	-0.132	0.294	-0.117	-0.055	-0.271	-0.011	—						
	p-value	0.234	0.107	< .001	0.153	0.506	< .001	0.896	—						
EnviroFendly	Pearson's r	-0.060	-0.024	0.169	-0.187	-0.065	-0.261	-0.031	0.516	—					
	p-value	0.468	0.767	0.038	0.022	0.433	0.001	0.710	< .001	—					
Safety	Pearson's r	0.080	-0.143	0.209	-0.240	-0.051	-0.052	0.006	0.460	0.419	—				
	p-value	0.333	0.080	0.010	0.003	0.535	0.523	0.941	< .001	< .001	—				
Efficiency	Pearson's r	-0.041	-0.163	0.099	-0.096	-0.067	-0.072	0.028	0.433	0.430	0.470	—			
	p-value	0.622	0.046	0.227	0.245	0.417	0.381	0.736	< .001	< .001	< .001	—			
PreferDailycom	Pearson's r	-0.087	-0.161	0.115	-0.027	-0.045	-0.115	-0.039	0.400	0.346	0.456	0.511	—		
	p-value	0.291	0.050	0.162	0.740	0.583	0.160	0.634	< .001	< .001	< .001	< .001	—		
CCAf	Pearson's r	0.192	-0.056	0.137	-0.097	-0.111	0.186	0.123	0.208	0.193	0.363	0.431	0.490	—	
	p-value	0.019	0.492	0.094	0.235	0.176	0.023	0.133	0.011	0.018	< .001	< .001	< .001	—	
infrastructure	Pearson's r	-0.013	-0.178	0.163	-0.171	-0.046	-0.173	0.035	0.474	0.462	0.492	0.457	0.511	0.406	
	p-value	0.878	0.029	0.046	0.036	0.572	0.034	0.673	< .001	< .001	< .001	< .001	< .001	< .001	
GovtPolicies®	Pearson's r	0.018	-0.187	0.179	-0.062	-0.072	-0.012	0.076	0.317	0.219	0.282	0.451	0.525	0.462	
	p-value	0.824	0.022	0.028	0.448	0.382	0.886	0.355	< .001	0.007	< .001	< .001	< .001	< .001	

Model Fit Measures

Model	R	R^2
1	0.721	0.520

Model Coefficients - Familiar

Predictor	Estimate	SE	t	p
Intercept [a]	0.45711	0.7053	0.6481	0.518
EnviroFendly	0.21750	0.0991	2.1952	0.030
Safety	0.18114	0.0947	1.9132	0.058
Efficiency	0.11867	0.0971	1.2218	0.224
PreferDaily commute	0.15055	0.0961	1.5668	0.120
CCAf	-0.11430	0.1058	-1.0806	0.282
infrastructure	0.09537	0.0979	0.9744	0.332
GovtPolicies®	0.06436	0.1024	0.6285	0.531
Age:				
25-34 – 18-24	0.17101	0.2382	0.7180	0.474
35-44 – 18-24	0.55500	0.3167	1.7522	0.082
45-54 – 18-24	0.42957	0.2998	1.4329	0.154
55-64 – 18-24	0.23196	0.3553	0.6528	0.515
65 and above – 18-24	0.38573	0.3608	1.0692	0.287
Gender:				
Male – Female	0.15572	0.1468	1.0609	0.291
EduQua:				
Doctorate degree – Bachelor's degree	0.36576	0.2358	1.5509	0.124
High school or below – Bachelor's degree	-0.41185	0.3828	-1.0758	0.284
Master's degree – Bachelor's degree	0.34674	0.1742	1.9903	0.049
No formal education – Bachelor's degree	-0.30063	0.5458	-0.5508	0.583
EmpStat:				
Public Company – Private Company	-0.28431	0.2103	-1.3516	0.179
Self Employed – Private Company	-0.59918	0.2159	-2.7751	0.006
Unemployed – Private Company	0.00815	0.3825	0.0213	0.983
IPM:				
50000-100000 – 25000-50000	-0.16275	0.2369	-0.6871	0.493
Above 100000 – 25000-50000	0.05304	0.2757	0.1923	0.848
Less than 25000 – 25000-50000	0.14050	0.4635	0.3031	0.762
Unsalaried – 25000-50000	-0.08336	0.4473	-0.1864	0.852
MaritalSta:				
Married – Divorced	0.36587	0.3910	0.9356	0.351
Single – Divorced	0.66413	0.4525	1.4677	0.145
FamilyTyp:				
Nuclear family – Joint family	-0.00698	0.1550	-0.0450	0.964

[a] Represents reference level

The linear regression analysis revealed that perceptions of environmental friendliness (EnviroFendly) have a statistically significant positive association with familiarity with AI-enabled autonomous vehicles ($p = 0.030$), indicating that individuals who perceive AI-enabled vehicles to be environmentally friendly tend to be more familiar with the concept of AI in autonomous vehicles. However, other factors such as safety, efficiency, daily commute preferences, and various demographic variables including age, gender, education qualification, employment status, income, marital status, and family type did not show statistically significant associations with familiarity with AI. Despite the moderate level of fit of the model (R-squared = 0.520), further analysis or refinement of the model may be necessary to better understand the complex factors influencing perceptions towards AI-enabled autonomous vehicles.

6. Implications:

The research findings shed light on some important takeaways about how people feel about AI-enabled autonomous driving. First, we clearly need more effort to educate people, especially younger generations, about the positive effects of AI on the environment. This can help increase public acceptance and understanding.

Second, marketers need to own up when it comes to promoting this technology. Tailoring messages based on demographics such as age and gender can make a big difference in how people perceive and accept independent driving.

Third, policymakers have an important role to play. The views of those age groups need to be taken into account when drafting codes for autonomous vehicles. Thus, laws can effectively reflect the wishes of the public.

Investing in infrastructure is another key area. We need more charging stations and intelligent transportation systems to successfully integrate AI-powered vehicles into our current infrastructure

And let's not forget further research. We still have a lot to learn about the factors that affect how people feel about autonomous cars. By better understanding these barriers, we can find ways to overcome them and encourage greater adoption.

Finally, teamwork is important. Government, business, schools and communities need to work together. By sharing knowledge and recognizing what we have in common, we can create an environment where autonomous driving is possible, making transportation safer and more sustainable for everyone.

7. Limitations and Opportunities for Future Research

The study on consumer perceptions towards AI-enabled autonomous driving technology has several limitations. Firstly, it primarily focuses on North India, limiting generalizability. Secondly, convenience sampling and reliance on self-reported data may introduce bias. Additionally, the study overlooks perspectives from stakeholders beyond consumers and lacks longitudinal analysis. Despite these limitations, future research could explore diverse geographic regions, employ rigorous sampling techniques, and incorporate perspectives from various stakeholders to enrich understanding and inform targeted strategies for technology adoption and integration.

8. Conclusion

our research provides valuable insights into consumer perceptions towards AI-enabled autonomous driving technology in North India. While familiarity with AI in autonomous vehicles appears to be positively associated with perceptions of environmental friendliness, other factors such as safety, efficiency, and demographic variables showed no significant influence on familiarity. Significant differences among age groups were observed in preferences for daily commute and factors influencing adoption, highlighting the nuanced relationship between age and attitudes towards autonomous vehicles. Our findings underscore the importance of considering environmental concerns and age-related factors in shaping consumer perceptions, suggesting avenues for further research and the need for targeted strategies to promote the adoption of AI-enabled autonomous driving technology in the region.

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