



PERCEIVED VALUE AND SATISFACTION AMONG USERS OF SUBSCRIPTION-BASED GENERATIVE AI TOOLS IN TAMIL NADU

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ABSTRACT

The study looks at who are using subscription based generative AI tools in Tamilnadu. In this study on user experience, perceived value, and satisfaction of generative AI subscription tools in Tamil Nadu. The research focuses on understanding the adoption and usage of AI tools such as ChatGPT, Google Gemini, Perplexity AI, and Microsoft Copilot across academic, professional, and personal settings. A descriptive research design was adopted, and primary data were collected from 398 respondents through a structured questionnaire using a five-point Likert scale. The results come to show that most users subscribe to these tools mainly for studies and education. Google Gemini and ChatGPT came out as the top choices. The study found a strong relation between users of perceived value and their satisfaction with generative AI tools. The major factors influencing are emotional value, perceived usefulness, and ease of use. However, demographic variables are doing not significantly affect perceived value and satisfaction levels. This study concludes that subscription-based generative AI tools have become an important part of modern digital life and will continue to influence education, business, and technological innovation in the future. This research is aligned with the United Nations Sustainable SDG 9 (Industry, Innovation and Infrastructure) and its supports the innovation and digital transformation through the increasing adoption of subscription-based generative AI tools in education, professional work, and technological advancement.

KEYWORDS: Generative AI, User Satisfaction, Perceived Value, AI Adoption, Technology Acceptance, Model (TAM), SDG 9

1. INTRODUCTION

1.1 Generative AI: An Overview

Generative Artificial Intelligence refers to advanced AI systems that can create human-like content such as text, images, audio, video, and code based on user inputs and data patterns. In recent years, tools like ChatGPT and Google Gemini have become highly popular among students and working professionals in India, including Tamil Nadu. With the rise of paid subscription plans, it is important to understand whether users feel these tools are worth the cost. This study examines how users of subscription-based generative AI tools in Tamil Nadu perceive their value and satisfaction levels. Generative AI is now widely used in education, business, healthcare, marketing, entertainment, and software development. It has become one of the most important innovations of the digital era. This study is also aligned with SDG 9 (Industry, Innovation and Infrastructure), as generative AI supports technological innovation and digital transformation. Subscription-based AI tools promote productivity, knowledge sharing, and smart technological solutions. They also enhance access to advanced digital technologies across different sectors. Overall, generative AI contributes to innovation-driven growth and the development of a digitally connected society.

1.2 REVIEW OF LITERATURE

Abigail Padi et al. (2026) found that financial literacy improves mobile money adoption by increasing perceived ease of use. The study highlighted perceived usefulness and ease of use as major drivers of technology adoption through the Technology Acceptance Model.

Alzate Barricarte et al. (2026) examined user perceptions of mHealth apps using AI-driven insights and NLP-based topic modeling. The study emphasized functional and emotional values in shaping AI-enhanced consumer behavior and brand association.



Aygun Varol et al. (2026) focused on AI-driven smart spaces integrating AI, IoT, and sensing technologies. The research showed that smart spaces improve personalization, real-time decision-making, and user responsiveness.

Chi B. Vu et al. (2026) investigated student engagement with ChatGPT for educational tasks using inoculation theory. The study found that inoculation training improves students' critical verification behavior toward AI-generated information.

Hongbo Ma et al. (2026) examined electric vehicle adoption through performance expectancy, effort expectancy, and social influence. The research highlighted demographic and contextual factors influencing technology adoption.

Junkang Xu et al. (2026) reported that perceived benefits and risks influence attitudes toward clean energy technologies. The study found that reliable power supply and energy cost savings increase public support.

Lasarov et al. (2026) explained that GenAI can bridge the gap between research and practice through knowledge translation. The study adapted the Knowledge-to-Action framework for real-world impact.

Liu Ziyang et al. (2026) reviewed AI applications in preservice teacher development across 55 empirical studies. The study identified opportunities and challenges in AI integration within teacher education.

Puja Khatri et al. (2026) developed and validated the Generative Artificial Intelligence Appropriation Scale (GAIA). The research highlighted how organizations use generative AI to achieve strategic goals.

Sayeed Salih et al. (2026) reviewed GenAI applications in digital marketing through systematic review and case study synthesis. The study discussed the growing impact of AI-driven marketing transformation.

Yanxinyue Liu et al. (2026) explored factors influencing continuous use intention toward AI-driven chatbots. The study found that perceived innovativeness and active involvement strengthen user engagement.

Cheyenne van de Port et al. (2025) highlighted generational differences in customer engagement and satisfaction in subscription services. The findings showed that Generation Z prefers personalized and interactive engagement methods.

Elnaz Azmi et al. (2025) established best practices for AI-based image analysis applications in aquatic sciences. The study also developed AI deployment guidelines for real-world image analysis tasks.

Gia Khuong an et al. (2025) analyzed the influence of AI-powered personalized advertising on consumer purchase intention. The research emphasized AI marketing's growing role in Vietnam's digital marketplace.

Giulia Nevi et al. (2025) examined how AI reshapes platform business models to create ESG value. The study identified different AI-enabled configurations for value creation and delivery.

Hassanian Ali et al. (2025) explored global adoption of generative AI using economic and institutional determinants. The findings showed that infrastructure and regulatory frameworks strongly influence adoption.

Iva Georgieva et al. (2025) examined the use of generative text AI in design creativity. The study highlighted peer evaluation and creativity assessment through AI-supported design practices.

Jana T. Winterstein et al. (2025) analyzed AI-generated cancer prevention influencers on social media. The study showed that social media platforms effectively spread health information at low cost.

Jelena Hadina et al. (2025) introduced innovative data modeling concepts for big data analytics. The research emphasized probabilistic cardinality and replicability to reduce inconsistent reporting risks.

Letycja Soloduch-Pelc et al. (2025) compared Scopus AI and Web of Science Research Assistant tools. The study evaluated their effectiveness in supporting academic research activities.

Liling Hu et al. (2025) examined factors influencing subscriptions to premium AI drawing tools. The study integrated TAM and UTAUT frameworks with grounded theory analysis.

Manaal Basha et al. (2025) analyzed trust, transparency, and adoption of generative AI in software engineering. The research used Twitter discourse analysis to understand public perceptions.

Mariyono Dwi et al. (2025) explored ethical and psychological implications of generative AI in digital afterlife technologies. The study applied responsible inclusive innovation and systematic review methods.

Muhammad Adeel Mannan et al. (2025) explored collaborative AI integration in ERP systems. The research highlighted intelligent collaboration between humans and AI modules for improved system performance.



Nader Salari et al. (2025) reviewed the impacts of generative AI on the future labor market. The study discussed opportunities, challenges, and changing attitudes toward AI-driven jobs.

Naseem Alsadi et al. (2025) highlighted smart systems and data-driven technologies in smart cities, industries, and healthcare. The study focused on future innovations in autonomous smart systems.

Palupi Lindiasari Samputra et al. (2025) found that Industry 5.0 technologies create economic and social value for millennial and Gen Z MSMEs. The study used PLS-SEM analysis to examine business capabilities.

Pia Hautamaki et al. (2025) explored how AI supports business model innovation in B2B platform ecosystems. The research emphasized mindset shifts needed for AI-powered innovation.

Ruiqi Chang et al. (2025) examined mobility-as-a-service adoption using perceived value, trust, and attitude. The study extended the Value-based Adoption Model for private vehicle owners.

Saman Amoujavadi et al. (2025) developed sustainability, resiliency, agility, and security criteria for cloud service providers. The research proposed a comprehensive hierarchical assessment framework.

Sonam Rinchen et al. (2025) reviewed BIM adoption in developing countries through systematic literature analysis. The findings showed that BIM improves digital transformation and project efficiency.

Soodeh Hosseini et al. (2025) highlighted the role of agentic AI in creating autonomous and intelligent systems. The study emphasized productivity, innovation, and improved customer experiences.

Taylor R. Rakauskas et al. (2025) compared the performance of ChatGPT and Microsoft Copilot on professional exam tasks. The research also included image-based questions for broader evaluation.

Vitor Miguel Ribeiro et al. (2025) examined peer-to-peer energy intraday trading platforms with customization features. The study discussed the growing importance of decentralized energy systems.

Abhishek Anil et al. (2024) evaluated AI-generated articles using tools like iThenticate and Small SEO Tools. The study focused on academic integrity and information quality assessment.

Alexander J. Carroll et al. (2024) integrated LLMs into science and engineering education. The research proposed instructional strategies for improving information literacy.

Anca-Simona Horvath et al. (2024) used text-to-text and image-generation AI tools in architectural design practice. The study applied a research-through-design framework for creative development.

Benicio Gonzalo Acosta-Enriquez et al. (2024) examined university students' attitudes toward ChatGPT using SEM analysis. The study analyzed cognitive, affective, and behavioral components of user attitudes.

Bodong Chen et al. (2024) explored integrating ChatGPT into classroom knowledge-building activities. The research showed how GenAI supports idea generation and AI literacy development.

Lara Sucupira Furtado et al. (2024) discussed creativity outcomes in generative AI design tasks. The study highlighted combinational, exploratory, and transformational creativity approaches.

Maurizio Atzori et al. (2024) focused on improving password security through generative models and data reconstruction. The study proposed methods for strengthening user authentication.

Mohd Javaid et al. (2024) emphasized the role of digital platforms and the internet in the digital economy. The findings linked Industry 4.0 technologies with economic transformation.

Mohd Saqib Nawaz et al. (2024) examined smart phone use and dependence through a systematic literature review. The study applied cognitive dynamics-inspired smart systems concepts.

Natalie Grattan et al. (2024) reviewed explain ability and transparency in state-of-the-art SDP models. The research highlighted the importance of interpretable AI systems.

V. Kumar et al. (2024) explored AI's influence on marketing decision-making and customer experience. The study applied a dynamic capability framework to explain AI-driven marketing strategies.

Abhishek Anil et al. (2023) evaluated AI-generated articles using plagiarism detection tools. The study highlighted academic integrity and evaluation frameworks for digital content.

Bodong Chen et al. (2023) investigated the use of ChatGPT in classroom knowledge-building processes. The findings demonstrated the role of GenAI in supporting AI literacy among students.

Kostis Giannakopoulos et al. (2023) explored the role of ChatGPT, Google Bard, and Bing Chat in dental decision-making. The study emphasized the need for further clinical validation of LLMs.

Luca Sandrini et al. (2023) examined GenAI's impact on the news media industry and deceptive news consumption. The research discussed AI's role in news-related decision-making.

Muhammad Bilal et al. (2023) proposed a model explaining eWOM and luxury brand purchase intention. The study showed that perceived enjoyment influences consumer attitude and purchase behavior.

1.3 RESEARCH QUESTIONS

The present study is designed to address several key research questions related to the adoption and user experience of subscription-based generative AI tools. Based on these research questions, the following research objectives have been framed. The study primarily seeks to determine the adoption rate of subscription-based generative AI tools among users in Tamil Nadu and to understand how perceived value influences user satisfaction. In addition, it examines the relationship between perceived value and satisfaction, with a focus on identifying how different dimensions of perceived value namely functional, emotional and social value contribute to overall user satisfaction. Furthermore, the study investigates the extent to which perceived usefulness and ease of use impact both user satisfaction and the intention to continue using subscription-based generative AI tools. Finally, it explores whether there are significant differences in perceived value and satisfaction based on users' demographic and usage characteristics.

1.4 RESEARCH OBJECTIVES

- To examine the adoption rate of subscription-based generative AI tools among users in Tamil Nadu.
- To analyze the relationship between perceived value and user satisfaction of subscription-based generative AI tools.
- To identify which dimensions of perceived value functional, emotional, and social most significantly influence user satisfaction.
- To assess the impact of perceived usefulness and ease of use on satisfaction of generative AI tools.
- To determine whether demographic factors or usage patterns lead to significant differences in perceived value and user satisfaction.

1.5 SUSTAINABLE DEVELOPMENT GOALS (SDG) ALIGNMENT

This research is aligned with the United Nations Sustainable Development Goals (SDGs), particularly SDG 9.

SDG 9 – Industry, Innovation and Infrastructure

The investigation on “Perceived Value and Satisfaction among Users of Subscription-Based Generative AI Tools in Tamil Nadu” relates to United Nations SDG 9, which emphasizes innovation, technology, and digital infrastructure. Subscription-based generative AI tools support digital transformation in education, business, and professional activities by improving productivity, creativity, and access to advanced technologies. The study also highlights the importance of digital literacy and user adoption in the effective use of AI-based platforms. Therefore, the research contributes to innovation-driven growth and the development of a digitally connected society.

2. THEORETICAL FRAMEWORKS

This study draws on three established frameworks to understand user behaviors toward subscription based AI tools.

2.1 Technology Acceptance Model (TAM)

TAM was introduced by Fred Davis in 1985 to explain why people adopt new technology. The model argues that two beliefs drive adoption: perceived usefulness and perceived ease of use. When users believe a tool is both useful and easy, they are more likely to keep using it. This model has been applied widely in education, healthcare, and marketing research to understand technology adoption.

2.2 Social Exchange Theory

George Homans introduced Social Exchange Theory in 1958. It explains that people stay in relationships or continue using services when the benefits they receive outweigh the costs. In the context of AI tools, users continue their subscriptions when they feel the value gained such as time saved, better output quality, and enjoyment is greater than the money and effort spent. Trust and a sense of fairness also play a role in sustaining usage.

2.3 PRISMA

PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) was developed by David Moher and colleagues in 2009. It provides a clear and structured process for selecting and reviewing research literature. PRISMA is a widely accepted framework that provides a structured and transparent method for identifying, selecting, evaluating, and analyzing relevant research studies. The main purpose of PRISMA is to ensure that literature review studies are conducted systematically and reported clearly so that readers can easily understand the research selection process and findings.

3. RESEARCH METHODOLOGY

This study adopts a descriptive research design to investigate the relationship between perceived value and user satisfaction among subscribers of generative AI tools in Tamil Nadu. The methodology is primarily quantitative, focusing on the systematic collection and numerical analysis of data to identify patterns, trends, and correlations between the defined variables.

3.1 Research Design

This study adopts a descriptive research area to investigate the relationship between perceived value and user satisfaction among subscribers of generative AI tools in Tamil Nadu. The research methodology used to the primarily quantitative, focusing to the systematic collection and numerical analysis of identify patterns, trends, and correlations between the defined variables.

3.2 Sample Description

The study targeted residents of Tamil Nadu who were actively using subscription-based generative AI tools. Purposive and convenience sampling was used to ensure respondents had hands-on experience with paid AI services. A total of 398 respondents were included, which was sufficient for the statistical tests planned in this study.

3.3 Data Collection

Data collected to the Primary data is collected digitally via Google Forms. The survey link is distributed across various digital channels, including WhatsApp, Instagram, and LinkedIn, specifically targeting tech oriented groups and professional communities within Tamil Nadu. All constructs were measured using a five-point Likert scale from Strongly Disagree (1) to Strongly Agree (5).

3.4 Measurement Instrument

The questionnaire comprised two sections: (1) Demographic Profile—covering age, gender, educational qualification, occupation, monthly income, and generative AI Tools patterns; and (2) Construct Measurement - comprising Likert-scaled items (1= Strongly Disagree to 5 = Strongly Agree) corresponding to each theoretical variable.

Table: 3.01 Measurement Instrument

CONSTRUCTS	ITEMS	SOURCE
Perceived ease of use	7	Abigail Padi – 2026 https://doi.org/10.1016/j.jjime.2026.100392
Perceived usefulness	4	Gia Khuong An – 2025 https://doi.org/10.1016/j.joitmc.2025.100580
Satisfaction	4	Wanamina Bostan Ali a – 2024 https://doi.org/10.1016/j.ssaho.2024.101144
Purchase usage intention	4	Muhammad Bilal – 2023 https://doi.org/10.1016/j.actpsy.2023.104048
Innovativeness	4	Hongbo Ma a – 2026 https://doi.org/10.1016/j.trip.2025.101814
Personal innovativeness	4	Singh et -2026 https://doi.org/10.1016/j.actpsy.2026.106526
Perceived value	2	Liling Hu1 – 2025 https://doi.org/10.1038/s41598-025-99924-7
Social influence	4	Liling Hu1 – 2025 https://doi.org/10.1038/s41598-025-99924-7
Perceived trust	3	Ruiqi Chang – 2025 https://doi.org/10.1016/j.esr.2025.101934



Social value	4	Palupi Lindiasari Samputra – 2025 https://doi.org/10.1016/j.apmr.2025.100355
Emotional value	5	Palupi Lindiasari Samputra – 2025 https://doi.org/10.1016/j.apmr.2025.100355
Output quality	2	Liling Hu1 – 2025 https://doi.org/10.1038/s41598-025-99924-7

3.5 Data Analysis

The data collected for this study was analyzed using IBM SPSS and Jamovi statistical software to ensure accurate and reliable results. Various statistical techniques were applied based on the objectives of the study. Descriptive statistics were used to summarize and present the demographic profile of the respondents. An Independent Sample T-Test was conducted to examine differences based on gender and subscription plan categories, while One-way ANOVA was used to identify significant differences across multiple demographic groups. In addition, correlation analysis was performed to measure the relationship between perceived value and user satisfaction. Finally, regression analysis was carried out to determine the key factors that most significantly influence user satisfaction with subscription-based generative AI tools.

4. DATA ANALYSIS AND FINDINGS

4.1 Demographic Profile of Respondents

Characteristic	Category	Count	Percentage
Age Group	19 - 28 years	305	76.63%
	29 - 38 years	71	17.84%
	Above 39 years	22	5.53%
Gender	Male	180	45.23 %
	Female	218	54.77%
Education Qualification	Undergraduate	116	29.15%
	Postgraduate	165	41.465
	Professional Degree	102	25.63%
	Doctorate	10	2.51%
	Others	5	1.26%
Occupation	Student	227	57.04%
	IT / Software Professional	44	11.06%
	Business / Entrepreneur	42	10.55%
	Teacher / Academic	54	13.57%
	Other Professionals	31	7.79%
Monthly Income	Below Rs.20,000	88	22.11%
	Rs.20,001 - Rs.40,000	232	58.29%
	Rs.40,001 - Rs.60,000	66	16.58%
	Rs.60,001 - Rs.80,000	5	1.26%
	Above Rs.80,000	7	1.76%
District / Region in Tamilnadu	Chennai	28	7.04%
	Coimbatore	107	26.63%
	Dindigul	32	8.04%
	Erode	28	7.04%
	Karur	13	3.52%
	Madurai	14	3.27%
	Salem	18	5.03%
	Thanjavur	6	1.26%
	Theni	21	5.28%
	Thiruvavur	6	1.26%
	Tiruchirappalli	24	6.78%
	Tirunelveli	14	3.52%
	Tiruppur	82	19.85%
	Less than 6 months	166	41.71%
	6 months - 1 year	180	45.23%



Experience with generative AI tools	1 - 2 years	25	6.28%
	More than 2 years	27	6.78%
Generative AI Tool Used (Subscription)	Google Gemini	367	92.2%
	ChatGPT	299	75.1%
	Perplexity AI	283	71.1%
	Canva AI	226	56.8%
	Microsoft Copilot	203	51.0%
	Grammarly	140	35.2%
	Claude	41	10.3%
	Jasper AI	34	8.5%
	Adobe Firefly	33	8.3%
	Midjourney / Synthesia / Runway ML	18 each	4.5% each
Purpose of using generative AI	Academic / Education	267	67.09%
	Work / Professional Tasks	93	23.37%
	Content Creation	8	2.01%
	Coding / Technical Tasks	12	3.02%
	Personal use	18	4.52%
Subscription Plan Used	Yes	325	81.66%
	No	73	18.34%

The demographic profile shows that most respondents are young 19–28 years: 76.63%, mainly students 57.04% and postgraduates 41.46%, indicating strong youth dominance in AI tool usage. Gender distribution is nearly balanced, with females 54.77% slightly higher than males 45.23%. Most users belong to the Rs.20,001–Rs.40,000 income group 58.29% and are concentrated in Coimbatore 26.63% and Tiruppur 19.85%. Generative AI tools are mainly used for academic purposes 67.09%, and most users have 6 months–1 year 45.23% or less than 6 months 41.71% of experience, showing early-stage adoption. Google Gemini (92.2%), ChatGPT 75.1% and Perplexity AI 71.1% are the most widely used tools, and large majorities are paid subscribers 81.66%, reflecting high perceived usefulness and value.

4.2 Adoption Rate of Subscription-Based Generative AI Tools

Subscription Plan Used	Count	Percentage
Yes	325	81.66%
No	73	18.34%
Total	398	100%

The table shows that out of 398 respondents, 325 respondents 81.66% are using subscription-based generative AI tools, while 73 respondents 18.34% are not using paid AI tools. This indicates a high level of adoption and acceptance of subscription-based generative AI tools among the respondents.

4.3 Correlation: Perceived Value and User Satisfaction

Measure	Value
Pearson Correlation (r)	0.417
Degrees of Freedom (df)	396
p-value	< 0.001
Significance Level	5%
Hypothesis Result	H1 Accepted – Significant relationship exists

The Pearson correlation coefficient of 0.417 indicates a moderate positive relationship between perceived value and user satisfaction. Since the p-value is less than 0.001, the result is statistically significant at the 5% level. This means that when users feel they are getting good value from their subscription, their satisfaction also tends to be higher. The null hypothesis was rejected in favour of the alternative hypothesis.

4.4 Regression: Dimensions of Perceived Value on Satisfaction

Model	R	R - Square	Adjusted of R Square	Std Error of the estimate
1	.571a	.326	.321	1.574

ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	471.784	3	157.261	63.479	.000b
Residual	976.087	394	2.477		
Total	1447.872	397	-		

COEFFICIENTS

Variable	Unstandardized B	Std. Error	Beta	T-value	Sig.
Constant	5.352	0.746	-	7.176	0.000
Perceived Value	0.431	0.072	0.265	5.961	0.000
Social Value	0.135	0.046	0.141	2.913	0.004
Emotional Value	0.257	0.039	0.329	6.639	0.000

The model explains 32.6% of the variation in user satisfaction R-Square = 0.326. Among the three predictors, emotional value has the strongest effect Beta = 0.329, followed by perceived value Beta = 0.265 and social value Beta = 0.141. All three variables are statistically significant. This tells us that how enjoyable and emotionally rewarding the AI experience feels has the greatest bearing on how satisfied users are overall.

4.5 Regression: Impact of Perceived Usefulness and Ease of Use on Satisfaction

Model	R	R - Square	Adjusted of R Square	Std Error of the estimate
1	.553a	.306	.303	1.595

ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	443.103	3	221.552	87.098	.000b
Residual	1004.769	395	2.544		
Total	1447.872	397	-		

COEFFICIENTS

Variable	Beta	T-value	Sig.
Perceived Usefulness	0.353	7.421	0.000
Perceived Ease of Use	0.290	6.084	0.000

Perceived usefulness Beta = 0.353 and perceived ease of use Beta = 0.290 together explain 30.6% of the variation in satisfaction. Perceived usefulness has the stronger influence, meaning users are more satisfied when the tool genuinely helps those complete tasks better. Ease of use also matters, tools that are simple and intuitive to operate lead to higher satisfaction.

4.6 ANOVA Results: Demographic Variables and Perceived Value

Demographic Factor	F Value	p-value	Result
Age Group	0.598	0.544	No significant difference
Education Qualification	0.214	0.928	No significant difference
Occupation	0.521	0.721	No significant difference
Monthly Income	0.303	0.872	No significant difference
Experience with AI Tools	0.500	0.683	No significant difference
Purpose of Using AI	0.638	0.640	No significant difference

For all demographic categories tested, the F values are low and the p-values are well above 0.05. This means that age, education, occupation, income, experience, and purpose of use do not create any meaningful difference in how users perceive value from AI tools. All null hypotheses were retained

4.7 ANOVA Results: Demographic Variables and User Satisfaction

Demographic Factor	F Value	p-value	Result
Age Group	0.250	0.780	No significant difference
Education Qualification	0.606	0.663	No significant difference
Occupation	1.77	0.141	No significant difference
Monthly Income	2.37	0.089	No significant difference
Experience with AI Tools	0.296	0.828	No significant difference
Purpose of Using AI	2.66	0.053	No significant difference

Similarly, no demographic variable was found to significantly affect user satisfaction. Even in cases where the F value was slightly higher, such as income $F = 2.37$ and purpose of use $F = 2.66$, the p values still exceeded the 0.05 threshold, confirming no significant difference.

4.8 T-Test Results: Gender and Subscription Plan

Comparison	T-value	p-value	Result
Gender vs. Perceived Value	0.743	0.458	No significant difference
Gender vs. User Satisfaction	0.800	0.424	No significant difference
Subscription Plan vs. Perceived Value	1.44	0.150	No significant difference
Subscription Plan vs. User Satisfaction	0.375	0.708	No significant difference

The neither T-test results confirm that neither gender nor subscription status creates a statistically significant difference in perceived value or satisfaction. Male and female respondents rated both measures similarly, and whether a person uses a paid plan or not did not translate into a meaningfully different satisfaction level.

5. FINDINGS

5.1 Demographic Findings

The demographic findings reveal that young adults are the primary users of subscription-based generative AI tools in Tamil Nadu, with the 19–28 age groups accounting for 76.63% of the respondents. Female respondents 54.77% slightly outnumbered male respondents 45.23%. In terms of education, postgraduates formed the largest group 41.46%, followed by undergraduates 29.15%. Students represented the majority occupation category with 57.04%, highlighting the extensive use of AI tools in academic environments. Most respondents 58.29% belonged to the middle-income group earning between Rs.20,001 and Rs.40,000 per month. District-wise participation was highest from Coimbatore 26.63% and Tirupur 19.85%, indicating stronger AI adoption in urban and industrial regions of Tamil Nadu. Additionally, 86.94% of users reported having less than one year of experience with generative AI tools, suggesting that AI adoption is still in its early stage among the respondents.

5.2 Statistical Findings

The statistical findings indicate a high adoption of subscription-based generative AI tools, with 81.66% of respondents using paid subscription plans, showing strong willingness to invest in premium AI services. Academic and educational use accounted for 67.09%, highlighting the importance of AI tools in learning and research. Among the platforms, Google Gemini (92.2%), ChatGPT (75.1%), and Perplexity AI (71.1%) were the most widely used tools. The study also found a moderate positive relationship between perceived value and user satisfaction ($r = 0.417$, $p < 0.001$). Emotional value was the strongest factor influencing satisfaction (Beta = 0.329), while perceived usefulness was the strongest TAM factor (Beta = 0.353). Demographic factors did not significantly influence perceived value or satisfaction, showing uniform acceptance across user groups.

6. DISCUSSION

The findings show that subscription-based generative AI tools are widely used among young users in Tamil Nadu, especially students, for academic and productivity purposes. Emotional value emerged as the strongest factor influencing user satisfaction, along with perceived usefulness and ease of use. The study also found that demographic factors do not significantly affect perceived value or satisfaction, indicating universal acceptance of AI tools across user groups. Overall, emotional engagement, usefulness, and ease of use are the key drivers of satisfaction among users.

7. SUGGESTIONS

7.1 For Users

Users are encouraged to go beyond basic features and explore advanced capabilities of subscription tools that can improve their academic and professional output. Basic training in prompting and AI tools can help users



get better results and feel more satisfied with their investment.

7.2 For Companies

Since emotional value is the top driver of satisfaction, companies should focus on making the user experience more engaging and enjoyable. Affordable pricing plans, student discounts, and trial periods can help attract more first-time subscribers. Improving response accuracy and output quality will directly support both perceived usefulness and satisfaction.

7.3 For the Government and Institutions

Policymakers and educational institutions should promote digital literacy programmes that help students and professionals use AI tools responsibly and effectively. Expanding broadband access in rural and semi-urban Tamil Nadu will ensure that the benefits of these tools reach a wider population.

8. SCOPE FOR FUTURE RESEARCH

Future studies can expand the scope by including respondents from different states and countries to compare adoption patterns of Generative AI tools across diverse populations. Researchers may also explore longitudinal studies to examine how user satisfaction and perceived value change over time with increased usage and experience. Additionally, future research can incorporate qualitative methods such as interviews or focus groups to gain deeper insights into user motivations, challenges, and expectations. It would also be valuable to examine emerging factors such as data privacy concerns, ethical issues, and trust in AI systems, which may influence adoption and satisfaction in the future.

9. CONCLUSION

The study concludes that subscription-based generative AI tools are widely adopted in Tamil Nadu, especially among students, with Google Gemini and ChatGPT being the most used platforms. Perceived value has a significant positive effect on user satisfaction, where emotional value plays the strongest role. Perceived usefulness and ease of use also enhance satisfaction and support continued usage. Demographic factors do not significantly influence satisfaction, showing universal acceptance of AI tools. The study is aligned with SDG 9, highlighting the role of AI in promoting innovation, digital transformation, and infrastructure development. Overall, user satisfaction is driven mainly by emotional engagement, usefulness, and ease of use of AI tools.

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