



A STUDY ON CONSUMER CONFIDENCE IN AI VOICE SHOPPING AMONG YOUNG ONLINE SHOPPERS IN TIRUPATI, ANDHRA PRADESH

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ABSTRACT :

This study examines consumer confidence in AI voice shopping among young online shoppers, with attention to awareness, usage frequency, perceived accuracy, trust in recommendations and payments, privacy and security concerns, convenience, satisfaction and future-use intention. A quantitative descriptive approach was adopted using questionnaire responses supplied in a spreadsheet. The workbook contains 105 rows, but additional rows were identified in the project context as simulated; accordingly, this paper analyses only the first 17 original responses and excludes all simulated entries. Within this small sample, 17 respondents reported awareness of AI voice-shopping assistants, and daily use was the most common frequency. Item means ranged from 3.41 to 3.88 on a five-point scale. The results are descriptive and preliminary; the small sample and convenience-based collection limit generalisation to young shoppers across Tirupati.

Keywords: AI voice shopping, consumer confidence, voice assistants, online shopping, trust, privacy, Tirupati.

Introduction of the Study

Artificial intelligence-enabled voice assistants are changing the way consumers search for information, compare products and interact with digital services. Tools such as Amazon Alexa, Google Assistant and Siri allow people to issue spoken commands instead of relying entirely on typing and screen-based navigation. In online shopping, voice interaction may make routine tasks quicker and more convenient, but it also raises questions about whether a command will be understood correctly, whether product details are accurate and whether a purchase will be secure.

Consumer confidence is important because shopping involves more than receiving a response from a digital assistant. Users must feel that the system understands their needs, presents relevant choices, handles payment instructions reliably and protects personal information. Privacy concerns, unauthorised purchases and misinterpreted commands may discourage adoption, while convenience and perceived time savings may encourage use.

The present study focuses on young online shoppers in Tirupati, Andhra Pradesh. It describes responses to a questionnaire on awareness, usage, trust, perceived risks and future intentions. The findings are based only on the original responses identified for analysis; simulated additions in the workbook have not been treated as participant evidence.

Research Gap

Dellaert et al. (2020) examined consumer interaction with AI-enabled services. Their broad focus helps explain how consumers engage with AI, but it does not establish how confident young online shoppers in Tirupati feel about voice-based orders, recommendations and payments.

Brill, Munoz and Miller (2019) considered the use of voice assistants and the ways people interact with them. However, voice-assistant use alone does not show whether shoppers trust product information or feel secure when completing a purchase in a local Tier-2 city such as Tirupati.

Bawack, Wamba and Carillo (2021) studied trust, privacy and customer experience in AI-supported interactions. A remaining gap is the need to examine these concerns specifically in voice shopping, including worries about privacy, payment security and accidental or incorrect orders among young shoppers in Tirupati.

Kumar and Singh (2022) explored consumer intention to shop with voice assistants and the mediating role of trust. Their focus on intention leaves scope to describe consumers' direct confidence in command accuracy, recommendations and the security of voice-based transactions in Tirupati.

Seo, Lee and Park (2022) examined trust and purchase intention in voice shopping. Further local evidence is needed to understand whether young shoppers in Tirupati feel confident that an assistant correctly understands their needs and provides reliable product and order information.

Huh, Whang and Kim (2023) investigated trust, the social role of voice assistants and user autonomy. This does not fully address the local consumer perspective on privacy, payment confidence and fear of misinterpreted commands among young online shoppers in Tirupati.

Kamoonpuri and Sengar (2024) analysed attitudes toward AI-enabled voice shopping. However, findings on general attitudes do not replace a focused assessment of consumer confidence among young shoppers in Tirupati, particularly regarding accuracy, transaction security and personal-data protection.

Objectives of the Study

- To describe awareness and frequency of use of AI voice-shopping assistants among the respondents.
- To examine confidence in the assistant's understanding of shopping requirements and product recommendations.
- To describe trust in voice-based payments and confidence in personal and financial data security.
- To identify concerns related to privacy, unauthorised purchases, command errors and data security.
- To assess perceived convenience, ease of purchase, time saving, satisfaction and future-use intention.

Research Questions

- How frequently do respondents use AI voice-shopping assistants?
- How confident are respondents about the accuracy of voice assistants and the relevance of their recommendations?
- What concerns do respondents report about privacy, payment security and incorrect orders?
- How do respondents assess convenience, satisfaction and their intention to continue using voice shopping?

Hypotheses

The following null and alternative hypotheses are proposed for the study.

- H_0 (Null Hypothesis): There is no significant relationship between consumer confidence factors—trust, perceived convenience, and privacy/security concerns—and intention to use AI voice shopping.
- H_1 (Alternative Hypothesis): There is a significant relationship between consumer confidence factors—trust, perceived convenience, and privacy/security concerns—and intention to use AI voice shopping.

Research Methodology

Research design: Quantitative, descriptive and cross-sectional. The questionnaire captures respondent characteristics, awareness, usage frequency, product categories and 17 statements rated on a five-point scale.

Study area and population: The study is framed around young online shoppers in Tirupati, Andhra Pradesh. The spreadsheet alone does not independently verify the location of each respondent; geographic representativeness therefore cannot be confirmed.

Sample and sampling: The analysis uses 17 original responses. The workbook contains 105 rows, but the additional rows identified as simulated were excluded to avoid presenting synthetic data as real survey evidence. The sample should be regarded as small and convenience-based.

Data collection: Responses were provided in a spreadsheet exported from an online questionnaire. The instrument includes demographic questions, awareness and usage questions, a multiple-selection product-category question and Likert-scale statements.

Measurement: The 17 attitude statements are treated as five-point scale items, with higher scores indicating stronger agreement. Negatively worded concern items are interpreted as stronger concern when their means are higher; they are not reverse-coded.

Data analysis: Frequencies and percentages were calculated for categorical variables. Means were calculated for the Likert-scale statements. Charts and tables in the following section are derived from the same 17 original responses. No simulated records or mock interpretations are included.

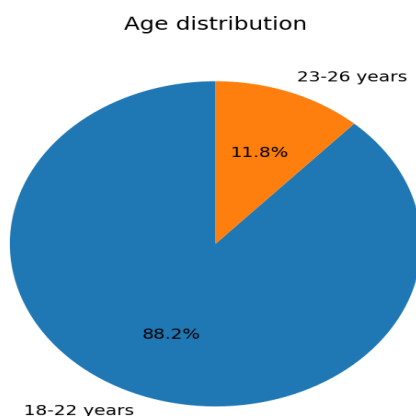
Ethical and reporting note: Results are presented in aggregate. The study does not claim population representativeness or causal relationships.

Data Analysis and Interpretation

A total of 17 original responses were included. Percentages use 17 as the denominator, except for product-category mentions, where respondents could select more than one option.

1.1 Respondent Profile

Figure: Age distribution ($n = 17$)



Category	Frequency	Percentage
18-22 years	15	88.2%
23-26 years	2	11.8%

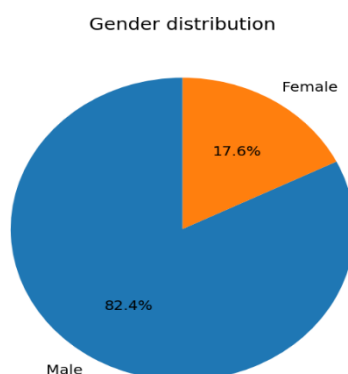


Figure: Gender distribution (n = 17)

Category	Frequency	Percentage
Male	14	82.4%
Female	3	17.6%

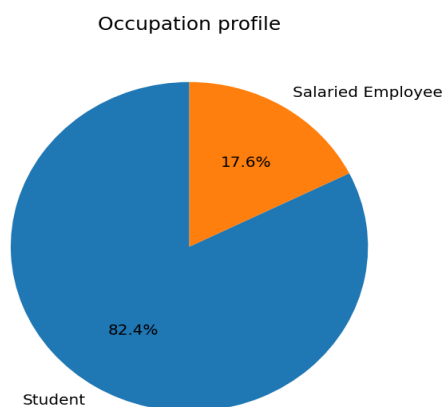


Figure: Occupation profile (n = 17)

Category	Frequency	Percentage
Student	14	82.4%
Salaried Employee	3	17.6%

Interpretation: The sample is concentrated in the 18–22 age category. Most respondents are students. These characteristics describe only the original respondents and should not be used to infer the demographic profile of all young online shoppers in Tirupati.

1.2 Awareness and Usage

Awareness of AI voice-shopping assistants	Frequency	Percentage
Yes	17	100.0%

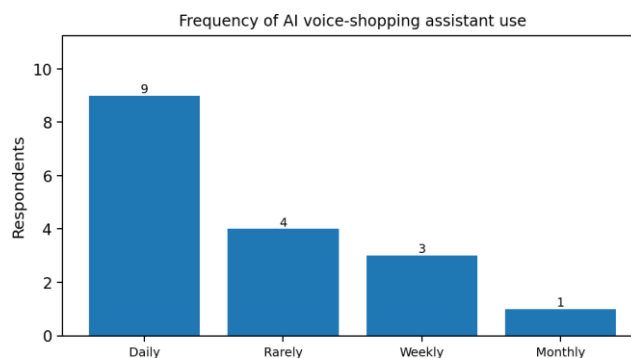


Figure: Frequency of AI voice-shopping assistant use (n = 17)

Usage frequency	Frequency	Percentage
Daily	9	52.9%
Rarely	4	23.5%
Weekly	3	17.6%
Monthly	1	5.9%

Interpretation: All 17 original respondents reported awareness of AI voice-shopping assistants. Daily use was the most common response, followed by rare use, weekly use and monthly use. This suggests that awareness and use coexist within the sample, but the small sample size prevents broad generalisation.

1.3 Product Categories

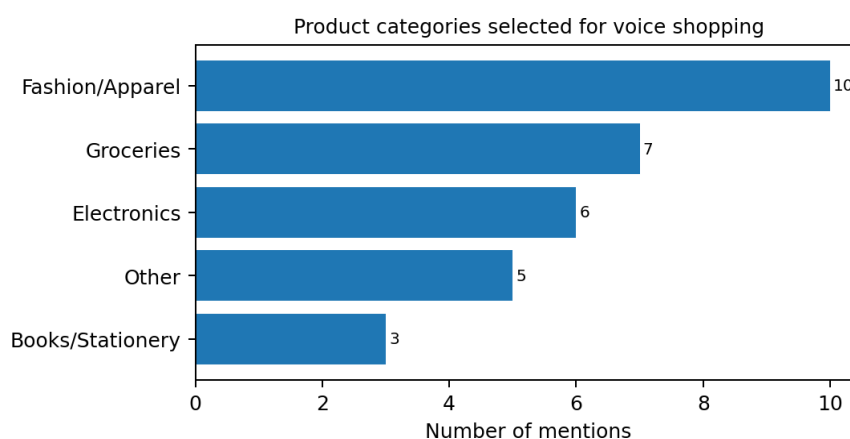


Figure: Product categories selected for voice shopping; multiple selections allowed

Product category	Number of mentions
Fashion/Apparel	10
Groceries	7
Electronics	6
Other	5
Books/Stationery	3

Interpretation: The category totals count mentions rather than unique respondents because multiple selections were allowed. The counts therefore should not be added together as though they represented mutually exclusive respondent groups.

1.4 Mean Scores for Confidence, Risk and Intention

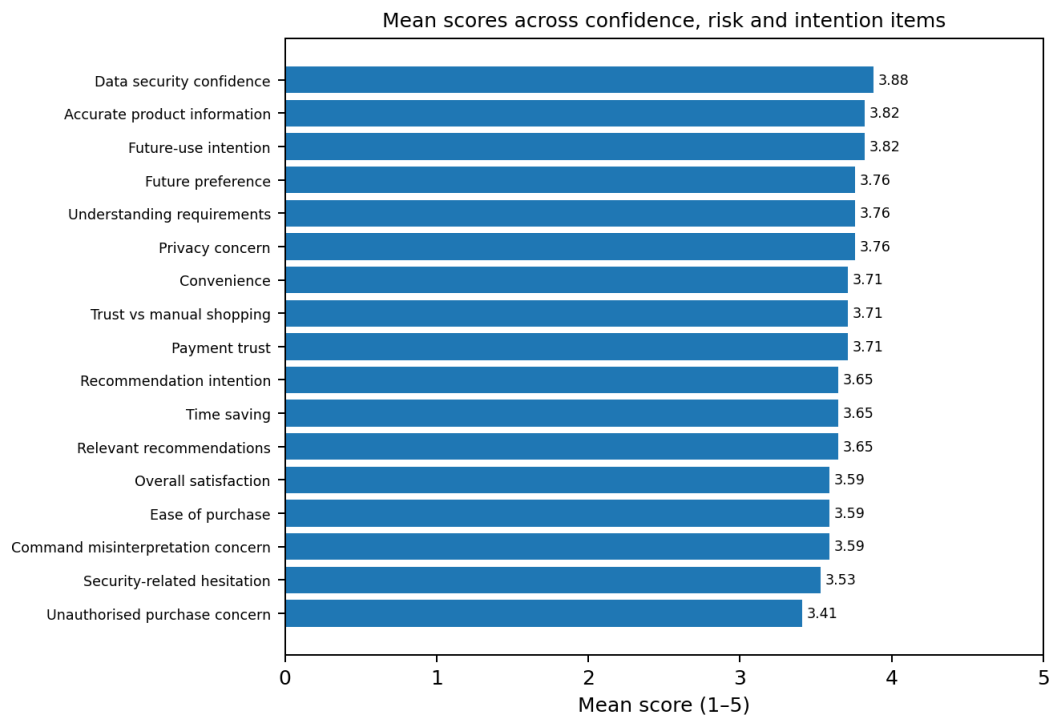


Figure: Mean scores for questionnaire statements (1 = lowest agreement; 5 = highest agreement)

Question statement	Mean score
9. I trust AI voice assistants to understand my shopping requirements accurately.	3.76
10. I feel confident that voice assistants recommend products suited to my needs.	3.65
11. I believe voice shopping assistants provide accurate product information.	3.82
12. I trust the payment process carried out through voice commands.	3.71
13. I am confident that my personal and financial data is secure while using voice shopping.	3.88
14. I trust voice assistants as much as I trust manual online shopping (typing/clicking).	3.71
15. I am concerned about privacy when using voice shopping assistants.	3.76
16. I worry about unauthorized purchases being made through voice commands.	3.41
17. I fear that voice assistants may misinterpret my commands and place wrong orders.	3.59
18. Data security is a major reason I hesitate to use voice shopping.	3.53
19. Voice shopping is more convenient than typing/browsing on apps or websites.	3.71
20. I find it easy to complete a purchase using voice commands.	3.59
21. Voice shopping saves my time compared to traditional online shopping.	3.65

22. I am satisfied with my overall experience using AI voice shopping.	3.59
23. I intend to continue using AI voice shopping assistants in the future.	3.82
24. I would recommend AI voice shopping to my friends/family.	3.65
25. I believe AI voice shopping will become my preferred mode of online shopping in the coming years.	3.76

Interpretation: Mean scores ranged from 3.41 for “16. I worry about unauthorized purchases being made through voice commands.” to 3.88 for “13. I am confident that my personal and financial data is secure while using voice shopping.”. These averages summarise the responses but do not establish causal effects or statistical significance. Privacy and security statements are negatively worded; higher scores on these items indicate stronger concern, not greater confidence.

Findings of the Study

- All 17 respondents reported awareness of AI voice-shopping assistants.
- Daily use was the most common frequency, reported by 9 respondents (52.9%).
- The largest age group was 18-22 years, representing 15 respondents (88.2%).
- The largest occupation group was Student, representing 14 respondents (82.4%).
- Mean scores across the 17 attitude statements ranged from 3.41 to 3.88.
- Confidence, convenience, privacy, payment security and perceived command errors should be considered together when evaluating voice-shopping experiences.
- All reported findings are based on the 17 original records; simulated entries were excluded.

Suggestions and Recommendations

- Provide a clear spoken and on-screen confirmation before an order is placed, including the product, quantity, price and delivery details.
- Allow users to review, edit or cancel an order easily if the assistant appears to have misunderstood a command.
- Explain clearly how voice recordings and payment-related information are collected, stored and protected.
- Offer purchase locks, transaction limits or additional authentication for higher-value purchases.
- Present product details, return policies and delivery charges transparently so users can verify the order before confirming it.
- Future studies should collect a larger sample of verified young shoppers in Tirupati and document the sampling method.

Conclusion

This study provides a preliminary descriptive account of consumer confidence in AI voice shopping among 17 original questionnaire respondents. Awareness of voice assistants was reported by all respondents, and daily use was the most common frequency. The attitude-item averages provide an initial picture of perceived accuracy, payment and data-security confidence, convenience, concerns and future intentions.

The findings must be interpreted cautiously because the usable sample is small and does not establish that respondents represent all young online shoppers in Tirupati. Simulated rows in the workbook were excluded from the analysis. A larger study using verified respondents, a transparent sampling procedure and suitable inferential methods would be required to test the proposed hypotheses and examine relationships among trust, perceived risk, satisfaction and continued-use intention.

Scope for Further Research

Further research may increase the sample size, verify respondent eligibility and location, assess reliability of the questionnaire scales and test relationships among confidence, privacy concern, perceived usefulness and intention to continue using voice shopping. Comparisons between frequent and occasional users may also help identify whether experience is associated with different confidence levels.