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A Study On The Impact Of Voice Assistants On Consumer Purchase Intentions, Coimbatore City

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ABSTRACT: Voice assistants like Alexa, Siri, and Google Assistant have become an important part of modern consumer life, changing how people search for products, gather information, and make purchase decisions. This study examines the impact of voice assistants on consumer purchase intentions, focusing on how convenience, trust, ease of use, and personalized experiences influence buying behaviour. Through surveys and data analysis, the research highlights the growing role of voice technology in shaping customer preferences and loyalty. The findings suggest that as voice assistants continue to evolve, businesses must adapt their marketing strategies to meet the new expectations of voice-driven consumers, ultimately enhancing engagement and driving sales.

Keywords: Voice Assistants, Voice search, Purchase Intentions, Alexa, Siri, Google Assistant, Voice Commerce.

I. INTRODUCTION

The digital marketing landscape is undergoing a significant transformation, driven by the rapid evolution of voice-activated technologies and the increasing adoption of voice search by consumers. With the proliferation of smart speakers, virtual assistants, and voice-enabled mobile devices, voice search has emerged as a dominant mode of interaction between consumers and digital media. VSO is critical in today's digital marketing landscape, as it can significantly impact consumer behaviour, including search intent, decision-making, and conversion rates. In the digital age, technological advancements continue to reshape the way consumers interact with brands and make purchasing decisions. One of the most significant innovations in recent years is the rise of voice search, which has transformed how consumers seek information and shop online. Voice search, powered by artificial intelligence (AI) and natural language processing (NLP), enables users to interact with digital devices using spoken commands rather than traditional text-based searches. Smart assistants such as Amazon's Alexa, Apple's Siri, Google

Assistant, and Microsoft's Cortana have become integral to consumers' daily lives, influencing their shopping habits and decision-making processes.

II. REVIEW OF LITERATURE

This study observed the following research for reference **Aditya Kumar Jha, et.al.** (2024), stated that People these days are constantly searching for a simple, quick fix that will increase the effectiveness of multitasking. Speech-to-text is therefore a great option. The main objective is to study the awareness and perception of voice-based search and voice assistant's how it affects digital marketing specifically for India region. It is exploratory research for that they used both qualitative and quantitative analysis. Secondary data and information were used from various sources. The result showed that 70% of consumers are aware of Voice Recognition technology and 45% have used it for shopping purposes. Voice Recognition has improved customer engagement, increased sales, and enhanced brand loyalty for businesses. The mobile market is growing rapidly, with voice assistants becoming increasingly popular. They concluded that as the voice search grows the search engines would also keep on upgrading themselves. **Dr. Kavya, et.al.** (2024), stated that the increasing use of voice search has sparked the need for adaptation in search engine optimization (SEO) and online advertising methods. The main objective is to understand consumer search behaviour when using voice technology. The research methodology used is a quantitative approach, specifically simple random sampling under probability sampling, with a sample size of 100 respondents and data collection through structured questionnaires and secondary sources. Voice assistant searchers are changing how people find products and interact with marketing, with age and gender influencing their preferences. They concluded adapting to voice search technology is crucial for businesses to stay competitive online successfully always. **Surbhi Choudhary, et.al.** (2024), conducted a study to evaluate the factors influencing consumer engagement and usage of artificial intelligence-based voice assistants. The primary objective was to investigate the impact of Voice Search SEO optimization on the success of marketing strategies and changes in consumer behaviour. The study utilized a mixed-methods approach, incorporating both offline (face-to-face) and online surveys for data collection. The findings revealed that voice assistants significantly enhance marketing strategies and positively influences consumer behaviour. The researchers concluded that perceived benefits and value are key drivers of the adoption of voice assistants. **H.A. Dimuthu Maduranga Arachchi and G. Dinesh Samarasinghe** (2023), stated that the impact of voice assistants on consumer interaction patterns and retail experiences, highlighting their potential to enhance convenience and improve user engagement. The main objective of this research is to investigate the impact of voice assistants on consumer interaction patterns and retail experiences. It is exploratory research for that they used both qualitative and quantitative analysis. Secondary data and information were used from various sources. The results showed that Gen Y consumers exhibit higher adoption rates and satisfaction with voice assistants compared to Gen X, showcasing a stronger inclination toward integrating technology into their retail experiences. The concluded Voice assistants greatly enhance retail experiences through convenience and usefulness always effectively online. **Mehak Mahajan** (2023), stated that the study explores how people's acceptance of voice assistants like Google Assistant, Siri, and Alexa can be increased. The main objective of this article

is to investigate the factors that influence consumer acceptance of Voice Assistants (VA) and its impact on purchase intention. The research methodology used is a quantitative approach through survey research and statistical analysis of VA users in India. The results showed that anthropomorphism increases Voice Assistant acceptance, which in turn boosts purchase intention among consumers. The study concludes that anthropomorphism positively impacts Voice Assistant acceptance and purchase intention among consumers.

III. OBJECTIVES OF THE STUDY

- To assess the awareness level of consumers about shopping through voice assistants.
- To examine the factors contributing to consumers' minimal adoption of voice shopping.
- To analyse the adoption trends of voice search among consumers and how it influences their purchasing behaviour.

IV. STATEMENT OF THE PROBLEM

Voice assistants like Google Assistants, Siri and Alexa offer convenience, but their use for shopping remains limited due to concerns over privacy, payment security, and voice recognition accuracy. The lack of personalized recommendations also hinders trust. This study aims to examine these challenges and consumer behaviour to enhance voice commerce adoption and effectiveness.

V. SCOPE OF THE STUDY

The study will investigate the impact of voice assistants on consumer purchase intentions. It also examines how the voice assistant's influences consumer behaviour and also it examines the impact of voice assistants on different consumer demographics, including age, gender, income, and education level. The study aims to provide how the voice assistants has influenced the consumer decision making, including the impact on purchase decisions and how far the brand awareness has reached the customers.

VI. RESEARCH METHODOLOGY

Research Design: The Convenient Research design was applied in the research methodology of the study

Sources of Data: The study is based on primary data and secondary data. The primary data have been collected by using the questionnaire and the secondary data has been collected from the various website and internet and magazine.

Sampling Techniques: The study used primary data which have been collected from 110 respondents.

VII. TOOLS OF ANALYSIS

- Simple percentage analysis
- Likert scale analysis

- Rank analysis

VIII. LIMITATIONS OF THE STUDY

- The study relies on people sharing their own experiences. Their answers might not always be accurate due to forgetfulness or wanting to give socially acceptable responses.
- The sample size of 110 respondents may not be representative of the entire population, which could limit the generalizability of the findings.
- The study may vary sample of the population in terms of demographics, such as age, gender, income, or education level.
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IX. ANALYSIS

SIMPLE PERCENTAGE ANALYSIS

Based on the simple Percentage Analysis we have the following findings

FORMULA

$$\text{Percentage} = \frac{\text{Number of response}}{\text{Total number of respondents}} \times 100$$

TABLE 1: TABLE SHOWING AGE OF THE RESPONDENTS

Age groups	No. of Respondents	Percentage
Below 18 years	19	17.3%
19– 30 years	58	52.7%
31 – 40 years	31	28.2%
Above 40 years	2	1.8%
Total	110	100 %

INTERPRETATION:

The above table shows that (17.3%) respondents are below 18 years, (52.7%) respondents are between 19-30 years, (28.2%) respondents are between 31-40 years and (1.8%) respondents are above 40 years.

INFERENCE:

Majority [52.7% (58)] of the respondents are 19-30 years of age.

LIKERT SCALE ANALYSIS**FORMULA:**

$$\text{Likert scale} = \frac{\sum fx}{\text{Total Number of Respondents}}$$

TABLE 2: TABLE SHOWING HOW VOICE SEARCH ASSISTANTS INFLUENCE THE SHOPPING DECISION (CONVENIENCE)

FACTORS	NO. OF RESPONDENTS (F)	LIKERT SCALE (X)	TOTAL (FX)
STRONGLY AGREE	42	5	210
AGREE	40	4	160
NEUTRAL	20	3	60
DISAGREE	5	2	10
STRONGLY DISAGREE	3	1	3
Total	110		443
			4.02727

$$\text{LIKERT SCALE} = \frac{\sum (fx)}{\text{TOTAL NUMBER OF RESPONDENTS}}$$

$$= 443/110$$

$$= 4.02727$$

INTERPRETATION:

It is inferred that 210(42) of the respondents are strongly agree with the convenience, 160(40) of the respondents are agree with the convenience, 60(20) of the respondents are neutral with the convenience, 10(5) of the respondents are disagree with the convenience, 3(3) of the respondents are strongly disagree with the convenience.

INFERENCE

Majority [210(42)] of the respondents are strongly agree with the convenience.

INTERPRETATION:

It is inferred that 145(29) of the respondents are strongly agree with the speed of response,180(45) of the respondents are agree with the speed of response,75(25) of the respondents are neutral with the convenience,18(9) of the respondents are disagree with the speed of response,2(2) of the respondents are strongly disagree with the speed of response.

INFERENCE

Majority [145(29)] of the respondents are strongly agreed with the speed of respondents.

RANK ANALYSIS

TABLE 3: TABLE SHOWING THE RANKING OF WHY THE RESPONDENTS MAY NOT USE VOICE SEARCH ASSISTANCE FOR SHOPPING

SNO	FACTORS	1	2	3	4	5	6	7	8	TOTAL	RANK
1	LACK OF TRUST	39 (8)	31 (7)	18 (6)	6 (5)	9 (4)	3 (3)	1 (2)	3 (1)	717	1
2	DIFFICULTY IN FINDING PRODUCTS	12 (8)	26 (7)	30 (6)	14 (5)	15 (4)	6 (3)	7 (2)	1 (1)	627	2
3	LIMITED PRODUCT INFORMATION	13 (8)	22 (7)	31 (6)	18 (5)	14 (4)	3 (3)	7 (2)	2 (1)	609	3
4	PRIVACY CONCERN	14 (8)	22 (7)	17 (6)	27 (5)	14 (4)	12 (3)	3 (2)	1 (1)	602	4
5	LACK OF VISUAL CONFIRMATION	10 (8)	12 (7)	15 (6)	22 (5)	21 (4)	15 (3)	8 (2)	7 (1)	516	7
6	INACCURATE VOICE RECOGNITION	30 (8)	11 (7)	14 (6)	10 (5)	8 (4)	19 (3)	10 (2)	8 (1)	568	5
7	LACK OF DETAILED PRODUCT DESCRIPTIONS	13 (8)	9 (7)	17 (6)	10 (5)	15 (4)	11 (3)	18 (2)	17 (1)	465	8
8	FRUSTRATING REPETITION	33 (8)	14 (7)	9 (6)	5 (5)	6 (4)	7 (3)	16 (2)	20 (1)	538	6

INTERPRETATION:

The above table shows that lack of trust ranks (1), difficulty in finding products (2), limited product information (3), privacy concern (4), inaccurate voice recognition (5), frustrating repetition (6), lack of visual confirmation (7), lack of detailed product descriptions (8).

INFERENCE:

The majority of the respondents ranked lack of trust (1).

X. FINDINGS FROM PERCENTAGE ANALYSIS

- Majority [52.7% (58)] of the respondents are 19-30 years of age.
- Majority [66.4% (73)] of the respondents are female.
- Majority [42.7% (47)] of the respondents are graduate.
- Majority [39.1% (43)] of the respondents are student.
- Majority [95.5 (105)] of the respondents are aware of voice assistant.

XI. FINDINGS FROM LIKERT SCALE ANALYSIS

- Majority [210(42)] of the respondents are strongly agree with the convenience.
- Majority [145(29)] of the respondents are strongly agreed with the speed of response.

XII. FINDINGS FROM RANK ANALYSIS:

- The majority of the respondents ranked lack of trust (1).

XIII. SUGGESTIONS:

- Improve Personalized Recommendations feature to better to individual preferences.
- Increase Product Availability Information to provide more accurate and up to date product availability information to reduce uncertainty.
- Expand Product Categories consider adding more product categories to diverse customer preferences.
- Enhance Accuracy of Search Results and voice recognition to improve the accuracy of search results to increase customer satisfaction
- Increase Accessibility to improve voice assistant compatibility with various devices.

XIV. CONCLUSION:

The study highlights the increasing role of voice assistants in influencing consumer behavior, particularly in digital marketing and e-commerce. With a high awareness level and regular usage patterns, voice search has become an essential tool in consumers' daily lives. However, despite its convenience and

efficiency, trust issues, difficulty in finding products, and lack of detailed product descriptions remain major challenges. To ensure wider adoption and long-term success, businesses must focus on enhancing search accuracy, building trust through better security, expanding product categories, and improving personalization features. Additionally, optimizing for multiple voice assistants and providing a seamless user experience will be crucial for maintaining a competitive edge in the evolving digital marketplace. As technology advances, voice commerce is expected to grow exponentially, making it imperative for businesses to adapt, innovate, and refine their voice search strategies to meet consumer expectations and drive engagement.

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